



THE FOUNDATION
FOR SCIENCE AND
TECHNOLOGY

Risk and Resilience

Foundation Future Leaders Conference 2023

Glazier's Hall, 9 Montague Close, London SE1 9DD

20th November 2023

This event has been kindly supported by:



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Saxton Bampfylde

Agenda

09:15 – 09:45	Registration – Tea and coffee available
09:45 – 09:50	Welcome Aubrey Dunford , Master, Worshipful Company of Scientific Instruments Makers
09:50 – 10:00	Setting the Scene Dr Luke Reynolds MBE , Head of Policy - People and Planet, The Royal Society
10:00 – 11:30	Session 1: AI & its Role in Society <u>Speakers/Panel:</u> Professor Helen Margetts OBE : Director of the Public Policy Programme at The Alan Turing Institute and Professor of Society and the Internet, University of Oxford Esra Kasapoglu : Director of AI and Data Economy, Innovate UK Professor Sana Khareghani , Professor of AI Practice, Kings College London Dr Cristiana Vagnoni , Horizons and Innovation Lead, ieso <u>Chair</u> : Dr Joy Egede : Assistant Professor in Computer Science, University of Nottingham and Foundation Future Leader
11:30 – 12:00	Break – Tea and coffee available
12:00 – 13:30	Session 2: Future of Work . How is work changing, and how do early career professionals plan and build a career in this changing environment? <u>Speakers/Panel:</u> Professor Jillian MacBryde : Director of the Hunter Centre for Entrepreneurship and Professor of Innovation & Operations Management, University of Strathclyde Toby Peyton-Jones : Non-executive board member of the Department for Education, and former Director of HR, Siemens Dr Rhys Morgan : Director of Engineering & Education, Royal Academy of Engineering Dr Orsolya Ihasz : Lecturer in Entrepreneurship, Cranfield School of Management and Foundation Future Leader <u>Chair</u> : Dr Eun Sun Godwin : Senior Lecturer in International Business Management, University of Wolverhampton, and Foundation Future Leader
13:30 – 14:20	Lunch

14:20 – 15:50	<p>Session 3: Energy Security. As we move towards Net Zero, and in an uncertain geopolitical climate, how do we ensure energy security for the UK?</p> <p><u>Speakers/Panel:</u></p> <p>Professor Paul Monks: Chief Scientific Adviser for the Department for Energy Security and Net Zero</p> <p>Professor Jim Watson: Director of the Institute for Sustainable Resources, UCL</p> <p>Dr Joanne Wade OBE: Chief Strategic Advisor, Association for Decentralised Energy</p> <p>Dr Delphine Byford: ITS SED Environmental Lead Consultant, DE&S, Ministry of Defence, and former Foundation Future Leader</p> <p><u>Chair:</u> Dr Jing (Jill) Zhao: Senior Lecturer in Architecture, University of West of England and Foundation Future Leader</p>
15:50 – 16:00	<p>Closing Remarks and Wrap up</p> <p>Gavin Costigan, Chief Executive, The Foundation for Science and Technology</p>

Speakers

Setting the Scene



Dr Luke Reynolds MBE

Luke is *Head of Policy - People and Planet* at the Royal Society where he runs the policy team covering topics ranging from animals and people to plants and wider living-environment issues. Previously he was Deputy Director, Futures and Foresight in the Home Office where he worked to promote and embed Futures thinking within the department, and prior to that he was Senior Private Secretary to the Government Chief Scientific Adviser for several years including through the pandemic. Luke has held policy, technical delivery and insight roles in six government departments and has wider experience in equity investments, the pharmaceutical industry, academia and the wonderful world of landscape gardening.

Session 1 – AI & its Role in Society

This is the topic of the year. The popularity of AI has risen significantly over recent months with Chat GPT taking centre stage. From writing exam papers to creating music to strikes in Hollywood screenwriters, we've all seen the current debate around AI now. What are the benefits and risk, what should the next steps be?



Professor Helen Margetts OBE

Helen Margetts is a Turing Fellow and Director of the Public Policy Programme at The Alan Turing Institute, and Professor of Society and the Internet at the University of Oxford and Professorial Fellow of Mansfield College. From 2011 to 2018, she was Director of the Oxford Internet Institute, a multi-disciplinary department of the University of Oxford dedicated to understanding the relationship between the Internet and society, before which she was UCL's first professor of Political Science and Director of the School of Public Policy (1999-2004). After an undergraduate degree in Mathematics, she worked as a computer programmer and systems analyst for Rank Xerox and Amoco before returning to study political science at LSE (MSc 1990, PhD 1996), where she also worked as a researcher. Helen sits on the UK government's Digital Economy Council, the Home Office Scientific Advisory Council, the WEF Global Agenda Council on Agile Government and the Ada Lovelace Institute for Data Ethics. She was a member of the UK government's Digital Advisory Board (2011-16). She is the founding Editor of the journal Policy and Internet, published by Wiley. In 2018 she was awarded the Friedrich Schiedel Prize by the Technical University of Munich for research and research leadership in technology and politics. In the 2019 New Years Honours List she was awarded an OBE for services to social and political science. In 2019 she was elected as a Fellow of the British Academy and also took up a visiting appointment as the John F Kluge Senior Chair in Technology and Society at the Library of Congress.



Esra Kasapoglu

Esra Kasapoglu is Director of AI and Data Economy. Esra brings deep experience as an industrial leader, particularly focused on business transformation and innovation. She has a keen interest in the application of emerging technologies and hands on experience of digital transformation, most recently as Digital Strategy Advisor of Microsoft.

With over 20 years of experience in public and private sector, including working with start-up organisations and large corporations, Esra has led some of the most complex implementations of disruptive technologies, business models and multi-million-pound organisational transformation programmes in the UK and across the globe. Her career, with grassroots in management consulting and technology, ranges from customer relationship management, developing new ways of working and business development to senior leadership. Esra has cross industry expertise and has worked across financial services, telecommunications, and transport and logistics industries for Big Four and multinationals across the globe.

Esra has worked for Big Four and multinational technology firms such as Ericsson, Infosys and Microsoft. Prior to joining Innovate UK, Esra worked at Microsoft as Digital Strategy Advisor provided trusted counsel to Senior Leaders, CIOs, and Boards.



Professor Sana Khareghani

Holding a BSc in Computer Science and an MBA from the Massachusetts Institute of Technology, Sana Khareghani has over 20 years' experience in technology and business across the private and public sectors. She has worked as a software engineer in big corporations and start-ups, as a management consultant advising senior officials throughout North America, Europe and the Middle East, and in HMG, as the inaugural

Head of the UK Government Office for AI leading the team to publish the UK's National AI Strategy. Most recently, Sana is Professor of Practice in AI at King's College London and AI Policy lead for Responsible AI UK, a £31Mn grant focused on seeding and connecting the international ecosystem for responsible AI research and innovation.

Session 2 - Future of Work

Accelerated by recent big events such as Covid and increase use of AI, the work landscape has changed. How do early career professionals plan and build a career in this ever-changing environment?



Professor Jillian MacBryde

Jill MacBryde is Professor of Innovation and Operations Management at Strathclyde University where she is also Director of the Hunter Centre for Entrepreneurship. Jill is Co-Director of the ESRC Made Smarter Network Plus, "InterAct" network, which aims to bring insights from the social sciences to support the innovation and diffusion of digital technologies that will result in a stronger, more resilient, manufacturing base. The theme throughout Jill's work is operations management in changing environments and her current research projects include productivity in manufacturing, the impact of Covid on UK manufacturing, and the future of manufacturing work. Jill also works with policy makers and the public sector. She is currently a member of the Innovate UK/ESRC Innovation Caucus and a member of the Innovate UK Future Flight Advisory Board.



Toby Peyton-Jones

Toby Peyton Jones is currently Board Member for the Department for Education, an Ambassador for Siemens UK and a wide-ranging business advisor / Non-Executive Director. Previously he has navigated an unconventional international career - early on as Officer in the Royal Engineers and then in Management Consulting. Later during his multi-functional journey at Siemens, he held several senior leadership roles, including over three years in China, and five years in Mergers and Acquisitions. He stepped down from the board of Siemens UK in 2018 where he was the HR Director for UK and northern Europe. In addition, he served as a Commissioner for the UK Commission for Employment and Skills and was a founding board member for the Institute for Apprenticeships and Technical Education. He is a business leader with a reputation for driving change. He has always been a champion for education and skills reform and an inspirational thought leader on "Innovation and the future of work".



Dr Rhys Morgan

Dr Rhys Morgan is the Director of Education and Diversity at the Royal Academy of Engineering. Rhys has responsibility the Academy's education programmes in schools, colleges and universities. Rhys also oversees the Academy's education and skills policy work – ranging from addressing challenges of STEM education in schools to ensuring future workforce skills meet the UK's technology innovation and net zero ambitions. Rhys is also responsible for the Academy's Diversity and Inclusion activity, supporting engineering businesses, professional bodies and education establishments to develop inclusive cultures and promote engineering to a diverse community. Rhys is the Academy's executive lead for engaging across the engineering profession, liaising with over 40 professional bodies on matters including sustainability, engineering ethics, and diversity and inclusion.

Session 3 - Energy and Security

Clean energy transition is bringing major policy changes and is the most pressing talk point in parliament. UK's drive towards Net Zero in an uncertain geopolitical climate makes us think, how do we ensure energy security for the UK?



Professor Jim Watson

Jim Watson is Professor of Energy Policy, Director of the UCL Institute for Sustainable Resources, and Research Director of the FCDO Climate Compatible Growth programme. He is also an Associate Faculty at SPRU, University of Sussex where he worked from 1993-2018. From Dec 2008 to Jan 2013, He was Director of SPRU's Sussex Energy Group.

He was also Research Director of the UK Energy Research Centre from Feb 2013, and was its Director from January 2015 until December 2019. He is a Fellow of the Academy of Social Sciences; the UK Executive Committee member of the European Energy Research Alliance, and steering group chair of the UKRI Greenhouse Gas Removal Demonstrator programme. Since November 2020, he has also been chair of the Technical Advisory Group for the World Bank Energy Sector Management Assistance Programme (ESMAP).

He has over twenty years of research experience on climate change, energy and innovation policy. I have been a specialist adviser to four Parliamentary committees: the House of Commons Energy and Climate Change Committee on energy security; the House of Commons Environment, Food and Rural Affairs Committee on climate change (including the draft Climate Change Bill); the House of Commons Environmental Audit Committee on UK energy security; and the House of Lords Science and Technology Committee on the resilience of electricity infrastructure.



Professor Paul Monks

Professor Paul Monks is Chief Scientific Adviser for the Department for Energy Security and Net Zero (DESNZ). Paul delivers independent and impartial scientific advice to ministers and policymakers across the DESNZ portfolio. He also advises on current and ongoing issues faced by the UK, such as the critical role of science in supporting sustainable, resilient, and measurable net zero and the challenges of delivering national

and global decarbonisation.

Paul was Chief Scientific Adviser for the Department for Business, Energy and Industrial Strategy (BEIS) from 2020 to 2023. Before joining BEIS, he was Pro-Vice Chancellor and Head of College of Science and Engineering at the University of Leicester, where he remains a Professor in Atmospheric Chemistry and Earth Observation Science.

Paul was Chair of the Defra Air Quality Expert Group (AQEG) and Deputy Chair of the Defra Science Advisory Council, alongside roles in the UKRI-NERC advice structures. He has worked internationally as the European representative on the Environmental Pollution and Atmospheric Chemistry Scientific Steering Committee (EPAC SSC) of the World Meteorological Organisation and on the International Commission on Atmospheric Chemistry and Global Pollution (ICACGP).

As founding director of G-STEP (a university innovation initiative), he developed a business facing organisation with the aim of innovating using satellite-based earth observation (EO) data to enhance the competitiveness of industry, particularly focused on small and medium sized businesses (SMEs).



Dr Joanne Wade OBE

Dr Joanne Wade is Chief Strategic Advisor at the ADE and a non-Executive Director at the Energy Saving Trust. She is a sustainable energy expert with over 30 years' experience in advocacy, consultancy and academia. She specialises in local energy systems, energy efficiency and sufficiency, and a fair transition to net zero. Joanne is an Energy Institute Fellow and Council Member and a member of the Supervisory Board for UK Power Networks' Distribution System Operator. She Chairs the Advisory Board for the UK Energy Research Centre and, until recently, Chaired the Advisory Board for the Centre for Research on Energy Demand Solutions. Joanne was appointed an OBE in 2018 for services to energy efficiency.

Closing Remarks



Gavin Costigan

Gavin Costigan is the Chief Executive of the Foundation for Science and Technology, a position he's held since March 2019. He is responsible for delivering the Foundation's programme of activities, including the Foundation Future Leaders Programme. Previous to working at the Foundation, Gavin was at the University of Southampton, most recently as Director of Public Policy. His first career was as a civil servant in central government, spending just under 17 years, in what is now the Department for Science, Innovation & Technology.

The Foundation Future Leaders Scheme

Future leaders in science, technology, research, and innovation need not only knowledge of the sector they are in – be it higher education, industry, the civil service or elsewhere – but also an understanding of the other parts of the UK’s research and innovation system. The Foundation Future Leaders Programme seeks to support the leaders of tomorrow in building the links and knowledge that they will need.

The programme which commenced in 2019 brings together a cohort of around 30 mid-career professionals over the course of a year, with approximately 10 representatives each from the research community, industry, and the civil service and wider public sector. Over a 12-month period, the group meet and discuss with senior figures from government, parliament, universities, large industry, SMEs, research charities and others. Just as importantly, Future Leaders present their own expertise, develop skills and make future connections. The programme includes external visits and the development of an annual conference for a wider group of mid-career future leaders in science, technology, research, and innovation.

Applications for the 2024 programme is now open (closing date 27 November). All the details can be found here:

<https://www.foundation.org.uk/Future-Leaders/Foundation-Future-Leaders-2024>

The Foundation for Science and Technology

The Foundation is a charity established in 1977 to facilitate debate on policy issues that have a science, engineering or medical element between parliament, Whitehall Departments, the Devolved Administrations and the business and research communities.

The Foundation is strictly neutral and does not express an opinion on any policy question.

Recordings of events, including videos, podcasts and speaker presentations where available, are posted on the Foundation website soon after each event. The website address is: www.foundation.org.uk

The Foundation publishes *FST Journal* which includes reports on every discussion event. The journal is available open access on the website.

The Foundation for Science and Technology podcast explores event topics in more depth. All episodes are available at:

<https://www.foundation.org.uk/Podcasts>

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