

**Thursday 13th July**

12.30 to 5pm

MSRH Building, White City

# JAWDROP SUMMIT

---

## UNLOCKING THE POTENTIAL OF UK CLIMATE TECH

**Bringing together innovators, policy makers and investors to  
accelerate Climate Tech innovation.**



**IMPERIAL  
POLICY  
FORUM**

Undaunted 



# WELCOME!

We are pleased to welcome you to the first *Jawdrop Summit: ClimateTech*, which brings together leading academics, policy makers, investors and innovative scaleups to determine practical pathways that will accelerate innovation and bring more innovation in the sector at pace.

## WCID: AN EMERGING CLIMATECH CLUSTER

White City is becoming synonymous with innovation. We are building a vibrant ecosystem that's taking great ideas from incubation to scale and then to market. We are focused on three complementary sectors: Life Sciences, Security & Resilience, and Climate Technologies. ClimateTech in White City is about climate action. It's about deploying the solutions we need - at scale - to reverse climate change. The time for action is now and we need everyone involved: businesses, innovators, policymakers, engineers, and investors. Let's come together today to start building the future of climate technologies.

## IN THE FACE OF CLIMATE CHANGE, WE ARE UNDAUNTED

Undaunted, a partnership between Imperial College and the Royal Institution, is a climate innovation ecosystem that nurtures scalable solutions to the climate challenge. We stand at the intersection of innovation and climate action. Over the past 12 years, we have developed our model for accelerating applicable, practical and adaptable climate solutions that make a difference on a global scale. Our Greenhouse programme, one of the most established specialist climate accelerators in the world, has supported over 150 startups who have raised \$1 billion in investment and created 1,500 jobs in 30 countries.

### **Professor Mary Ryan** Imperial College London Vice- Provost (Research & Enterprise)

Having a great idea does not automatically lead to innovation. Innovation requires imagination *and* implementation. We want to give our researchers the freedom to imagine, and the tools to deliver.

### **Alyssa Gilbert** Director, Undaunted

Climate Innovation means not just new discoveries but also new business models, policies and ways of implementing effective solutions that we already have available to reach our net zero goals.

## TAKE ACTION & PARTNER WITH US

We want to expand the coalition of partners we need to tackle the triple threat of climate change, pollution and biodiversity crisis, and we want that coalition to include you!



Interested in joining our network of ClimateTech companies? Want to base your company in White City?

Contact Peter Beard  
[p.beard@imperial.ac.uk](mailto:p.beard@imperial.ac.uk)



Are you a corporate and want to partner with Imperial College and Undaunted?

Contact Julia Zanghieri  
[j.zanghieri@imperial.ac.uk](mailto:j.zanghieri@imperial.ac.uk)

### Undaunted

Are you an Imperial start-up or know one that wants to join the Undaunted network?

Contact the team at  
[undaunted@imperial.ac.uk](mailto:undaunted@imperial.ac.uk)



Are you a policymaker and want to build links with our academics?

Contact  
[the.forum@imperial.ac.uk](mailto:the.forum@imperial.ac.uk)



Do you want to find out more about the leading technology innovations from Imperial, Oxford, Cambridge and UCL?

Join us at IP4U in London this September (see page 21 for details)



Do you want to join our mailing list and stay up to date with Undaunted initiatives?

**[GO TO LINK](#)**

# Programme

- 🕒 12:30 Lunch & Innovators Showcase
- 13:30: Keynote speakers
- 14:00: Panel 1
- 14:45: Networking break
- 15:00: Panel 2
- 15:45: Networking break
- 16:00: Panel 3
- 16:45: Closing remarks
- 17:00: Drinks Reception

## Keynote Speaker



**Richard Youngman**  
CEO, CLEANTECH GROUP

14:00

### Panel 1: Unlock energy innovation:

Discover how policy levers can be used to deploy clean technologies, lower prices, and improve supply resilience



**Professor Omar Matar**  
HEAD OF CHEMICAL ENGINEERING, IMPERIAL COLLEGE LONDON (CHAIR)



**Juliette Sanders**  
DIRECTOR OF STRATEGIC COMMUNICATIONS, ENERGY UK



**Jane Dennett Thorpe**  
DEPUTY DIRECTOR FOR NET ZERO, OFGEM



**Tim Von Werne**  
CEO, RFC POWER



**Sarah Mackintosh**  
DIRECTOR, CLEANTECH FOR UK

15:00

### Panel 2: Deep tech innovation:

Explore the synergy between government and investors to de-risk solutions for hard-to-decarbonise sectors



**Professor Ramana Nanda**  
DIRECTOR, INSTITUTE FOR DEEP TECH ENTREPRENEURSHIP (CHAIR)



**Sarah Hunter**  
NON-EXECUTIVE DIRECTOR, ARIA



**Dr. Christina Chang**  
PARTNER, LOWERCARBON CAPITAL



**Osas Omogide**  
CEO, DEEP.META

16:00

### Panel 3: Creating ClimateTech ecosystems:

Learn how knowledge exchange access to talent and investment can establish White City as a dynamic hub for climate innovation



**Professor Mary Ryan**  
VICE PROVOST (RESEARCH & ENTERPRISE), IMPERIAL COLLEGE LONDON (CHAIR)



**Stephen Cowan**  
LEADER, LONDON BOROUGH OF HAMMERSMITH & FULHAM COUNCIL



**Alyssa Gilbert**  
DIRECTOR, UNDAUNTED



**Reka Tron**  
CO-FOUNDER AND COO, MULTUS

## KEYNOTE SPEAKER



**Richard Youngman**

CHIEF EXECUTIVE OFFICER,  
CLEANTECH GROUP

Richard Youngman is CEO of Cleantech Group and is based in London. He has been with Cleantech Group since 2008 as a Managing Director before becoming CEO in 2016. Richard has more than 20 years' experience researching cleantech innovation, venture capital markets, and global start-ups. He is a regular keynote speaker at major cleantech events and is the driving force behind the annual Global Cleantech 100, a list of the world's most promising private cleantech companies. Before joining Cleantech Group, Richard ran the research team at Library House, which discovered and collected the information about high-growth companies that underpinned that company's data, analytical, and event services. This followed nine years building a broad-based finance and research background with leading financial institutions such as ABN AMRO, Barclays Capital and BZW in the City of London. Richard obtained his MBA from Theseus Institute – International Management Institute and his BA from the University of Cambridge.

## PANEL 1: UNLOCKING ENERGY INNOVATION

DISCOVER HOW POLICY LEVERS CAN BE USED TO DEPLOY CLEAN TECHNOLOGIES, LOWER PRICES, AND IMPROVE SUPPLY RESILIENCE



*Chair*

**Professor Omar Matar**

HEAD OF CHEMICAL ENGINEERING,  
IMPERIAL COLLEGE LONDON

Omar Matar (OKM), FEng, FAPS, FICHEME, is a Professor of Fluid Mechanics and Head of Department of Chemical Engineering at Imperial College London. His research interests include the use of multi-scale, physics-informed, data-driven methods to address challenges in the energy and manufacturing sectors. OKM is the Principal Investigator of the £6.5M programme PREMIERE (PREdictive Modelling with Quantification of UncERTainty for Multiphase Systems) funded by EPSRC, and co-Founder of a VC-backed, Imperial-Turing spinout, Quaisr. He has co-authored over 330 refereed papers and given over 80 invited talks. He is co-Editor-in-Chief of the Journal of Engineering Mathematics and on the editorial boards of International Journal of Multiphase Flows, Droplet, Engineering, and Fluids.

## PANEL 1: UNLOCKING ENERGY INNOVATION

DISCOVER HOW POLICY LEVERS CAN BE USED TO DEPLOY CLEAN TECHNOLOGIES, LOWER PRICES, AND IMPROVE SUPPLY RESILIENCE



*Speaker*

**Juliette Sanders**

DIRECTOR OF STRATEGIC COMMUNICATIONS,  
ENERGY UK

Juliette joined Energy UK in January 2022. She holds a master's in engineering from Cambridge University, and has held a variety analytical and communications roles across low carbon generation at Equinor, Orsted and EDF Energy, winning awards for her work. Juliette is passionate about inspiring and developing others in the energy sector; she was part of the initial team that set up Women in Nuclear and is a founding member of the TIDE Taskforce – set up to improve Equity, Diversity and Inclusion across the energy industry. She is also an honorary lecturer at the University of East Anglia.

## PANEL 1: UNLOCKING ENERGY INNOVATION

DISCOVER HOW POLICY LEVERS CAN BE USED TO DEPLOY CLEAN TECHNOLOGIES, LOWER PRICES, AND IMPROVE SUPPLY RESILIENCE



*Speaker*

**Jane Dennett-Thorpe**

DEPUTY DIRECTOR FOR NET ZERO,  
OFGEM

Jane has been dedicated to addressing climate change and bringing forward the energy transition for over two decades, in a variety of roles. She has previously been Head of Evidence, the Deputy Head of Science, and Head of Industrial Energy Efficiency in the Department of Energy and Climate Change. Since 2019 she has worked in the GB energy regulator Ofgem. She led the development of Ofgem's Decarbonisation Action Plan. She has also set up the Regulatory Energy Transition Accelerator, now hosted at the IEA, to help energy regulators around the world provide more effective responses to the climate challenge. She leads cross cutting strategic work to ensure the regulatory regimes can meet the net zero challenges in particular through teams focussed on hydrogen and electric vehicles. She is currently (jointly with the Chief Economic Advisor) leading a review of the future of network regulation.



## PANEL 1: UNLOCKING ENERGY INNOVATION

DISCOVER HOW POLICY LEVERS CAN BE USED TO DEPLOY CLEAN TECHNOLOGIES, LOWER PRICES, AND IMPROVE SUPPLY RESILIENCE



*Speaker*

**Tim Von Werne**

CHIEF EXECUTIVE OFFICER,  
RFC POWER

Tim Von Werne has 20 years' experience in the high-tech and deep-tech industries holding research and technical management roles in several UK based start-up companies. He has been involved in the commercialisation of several novel technologies through to high volume manufacturing. Tim was previously the Technical Director at Applied Graphene Materials and Chief Technology officer of Semblant Ltd.

For the last 4 years, Tim has been Chief Executive Officer of RFC Power building a team of scientists and engineers dedicated to helping the world store renewable energy simply and safely so that it can be used whenever it's needed.

RFC Power is an Imperial College spin-out company formed to exploit flow battery innovation from Imperial College London.

## PANEL 1: UNLOCKING ENERGY INNOVATION

DISCOVER HOW POLICY LEVERS CAN BE USED TO DEPLOY CLEAN TECHNOLOGIES, LOWER PRICES, AND IMPROVE SUPPLY RESILIENCE



*Speaker*

**Sarah Mackintosh**

DIRECTOR, CLEANTECH FOR UK

Sarah is the Director leading the Cleantech for UK initiative, building a coalition of cleantech and policy leaders to scale up sustainable innovation in the UK.

Before joining Cleantech Group, Sarah spent 11 years working for the UK civil service, primarily in energy and innovation policy and legislation.

She began her career as a research associate working on carbon capture and storage.

## PANEL 2: DEEP TECH INNOVATION

EXPLORE THE SYNERGY BETWEEN GOVERNMENT AND INVESTORS  
TO DE-RISK SOLUTIONS FOR HARD-TO-DECARBONISE SECTORS



*Chair*

**Professor Ramana Nanda**

DIRECTOR, INSTITUTE FOR DEEP TECH  
ENTREPRENEURSHIP, IMPERIAL COLLEGE  
LONDON

Ramana is a Professor of Entrepreneurial Finance and Academic Lead at the Institute for Deep Tech Entrepreneurship at Imperial, a Research Fellow in the Financial Economics Programme of the CEPR and a Visiting Scholar at Harvard Business School.

His research examines financing frictions facing new ventures with an aim to help entrepreneurs with fundraising and to shed light on how financial intermediaries, corporate R&D and policymakers can improve the odds of select and commercialising the most promising ideas and technologies in the economy.

Ramana is a recipient of the 2020 ERC Consolidator Grant and 2015 Kauffman Prize Medal. He previously worked for Oliver Wyman and Company where he worked primarily with clients in global capital markets as well as small-business banking.

## PANEL 2: DEEP TECH INNOVATION

EXPLORE THE SYNERGY BETWEEN GOVERNMENT AND INVESTORS  
TO DE-RISK SOLUTIONS FOR HARD-TO-DECARBONISE SECTORS



*Speaker*

**Sarah Hunter**

NON-EXECUTIVE DIRECTOR, ADVANCED  
RESEARCH AND INVENTION AGENCY (ARIA)

Sarah is an expert on technology, global public policy and climate and is currently a Non-Executive Director at the Advanced Research and Invention Agency (ARIA). Sarah spent 10-years as Director of Global Policy at X (formerly Google X) where she helped engineers, scientists and entrepreneurs invent and launch new technologies to solve big problems in the world today. Before joining Google, Sarah was Prime Minister Tony Blair's Senior Policy Adviser on Culture, Media and Sport in Downing Street. She is a Trustee of the social innovation charity, NESTA and Skateboard UK.

## PANEL 2: DEEP TECH INNOVATION

EXPLORE THE SYNERGY BETWEEN GOVERNMENT AND INVESTORS  
TO DE-RISK SOLUTIONS FOR HARD-TO-DECARBONISE SECTORS



*Speaker*

**Dr Christina Chang**

PARTNER, LOWERCARBON CAPITAL

A chemist, climate tech founder and CEO, Dr. Christina Chang has invented technologies across nanomaterials, catalysis for mining waste remediation, thin-film solar panels, solar water-splitting for H<sub>2</sub> production, and sustainable steel.

She is a Partner at Lowercarbon Capital, the multi-billion-dollar VC firm backing great companies that fix the planet profitably. Previously, Dr. Chang led federal funding for sustainable manufacturing research ARPA-E, including steel, chemicals, cement, rare earths, and carbon-negative building materials. Dr. Chang earned her PhD in Physical Chemistry from Harvard. On the Marshall Scholarship, Dr. Chang earned an MSc in Sustainable Energy Futures from Imperial College London and an MPhil in Chemistry from the University of Cambridge. She graduated summa cum laude from Princeton with a Bachelor's in Chemistry, with Certificates in Engineering Biology, Applications of Computing, and Materials Science and Engineering. She is a United States Presidential Scholar, a Goldwater Scholar, a Draper Laboratory Fellow, and an alumna of the Research Science Institute.

## PANEL 2: DEEP TECH INNOVATION

EXPLORE THE SYNERGY BETWEEN GOVERNMENT AND INVESTORS  
TO DE-RISK SOLUTIONS FOR HARD-TO-DECARBONISE SECTORS



*Speaker*

**Osas Omogiade**

CEO, DEEP META

Osas is the Founder and CEO of Deep.Meta, an AI Software for the metals industry making production more circular by reducing emissions and resource consumption without overhauling existing equipment. He holds a Master from the University of Cambridge in Materials Science and has a PhD in Steel Metallurgy from Imperial College London where he developed strong relationships with steel makers in the UK. For his PhD research he received the Materials Research Society Silver Award in Boston MA as well as of the Worshipful Company of Armourers and Brasiers and Sheffield Metallurgical Society Awards. His experiences have centred on manufacturing and sustainability across metallurgy, high power lasers and high performance foam extrusion. Deep.Meta is backed by Imperial Enterprise Labs, Centre for Climate Change and Innovation, Google, Innovate UK and Climate Tech, Prop Tech and Automation investors.

## PANEL 3: CREATING CLIMATE TECH ECOSYSTEMS

### LEARN HOW KNOWLEDGE EXCHANGE, ACCESS TO TALENT AND INVESTMENT CAN ESTABLISH WHITE CITY AS A DYNAMIC HUB FOR CLIMATE INNOVATION



Professor Mary Ryan is Vice-Provost for Research and Enterprise at Imperial College London and Armourers and Brasiers' Chair for Materials Science. She is also Professor of Materials Science and Nanotechnology.

She leads a large interdisciplinary group focusing on understanding nanoscale materials and interfaces. Her research on nanoscale materials and interfaces spans diverse application areas including: energy materials (batteries, magnetocaloric cooling devices, photovoltaics, fuel cells and catalysis); nonmaterial for bio-sensors and therapies and the potential of nanomaterials for environment remediation. She was elected Fellow of the Royal Academy of Engineering in 2015 and is a Fellow IoM3 and of the Institute of Corrosion. She was awarded CBE for contributions to Materials Science in the 2022 Queen's Birthday honours.

## PANEL 3: CREATING CLIMATE TECH ECOSYSTEMS

### LEARN HOW KNOWLEDGE EXCHANGE, ACCESS TO TALENT AND INVESTMENT CAN ESTABLISH WHITE CITY AS A DYNAMIC HUB FOR CLIMATE INNOVATION



*Speaker*

**Alyssa Gilbert**

DIRECTOR, UNDAUNTED

Alyssa Gilbert is the Director of Innovation at the Grantham Institute - Climate Change and the Environment at Imperial College London where she leads Imperial's climate change and sustainability innovation activities, linking innovative students, staff and alumni to opportunities to make a difference. She is the Director of Undaunted, a collaborative activity between Imperial and the Royal Institution that is seeking to create a home for climate innovation in London, supporting successful creation and scale up of businesses that tackle climate change.

Alyssa is also the co-chair of the UK Universities Climate Network, which brought together academic expertise on climate change ahead of the international negotiations in November 2021. Previously Alyssa was the Director of Policy and Translation at the Grantham Institute. Prior to joining the university, she worked at a specialist energy and climate consultancy for nearly 12 years on a range of climate change mitigation and adaptation topics. Alyssa has worked with the UK and many other national governments and at an international level. She has also been a member of the Natural Environment Council's Advisory Network.



## PANEL 3: CREATING CLIMATE TECH ECOSYSTEMS

### LEARN HOW KNOWLEDGE EXCHANGE, ACCESS TO TALENT AND INVESTMENT CAN ESTABLISH WHITE CITY AS A DYNAMIC HUB FOR CLIMATE INNOVATION



*Speaker*

**Councillor Stephen Cowan**

LEADER, LONDON BOROUGH OF  
HAMMERSMITH AND FULHAM

Stephen has led the Labour group at the London Borough of Hammersmith and Fulham for the last 13 years. He has been the Council leader since 2014. Under his leadership the borough has set up the industrial strategy partnership with Imperial College London to make the borough a global hotspot in science, technology, engineering and mathematics (STEM) and creative industries. He is originally from the north-west and worked in computer magazine publishing before setting up a business specialising in management, leadership and negotiation training.

## PANEL 3: CREATING CLIMATE TECH ECOSYSTEMS

### LEARN HOW KNOWLEDGE EXCHANGE, ACCESS TO TALENT AND INVESTMENT CAN ESTABLISH WHITE CITY AS A DYNAMIC HUB FOR CLIMATE INNOVATION





Reka is Co-Founder and Chief Operating Officer for Multus. Multus supplies environmentally sustainable and ethically sourced growth media to the cultivated meat industry. In 2023, Multus raised £7.9 million from investors to support further research and development for its products.





Since 2021, Reka has been an Enterprise Fellow of the Royal Academy of Engineering. Reka holds two degrees from Imperial College London including an MRes in Systems and Synthetic Biology.

Reka is dedicated to making a positive impact in the world and is a member of the Effective Altruism and Rationalist community.

# CLIMATECH INNOVATORS: SHOWCASE

These are just a few of the many ClimateTech companies that are based in White City or linked to Imperial College and Undaunted. These companies are not just talking about what's possible, they are making it happen every day.

ORGANISATION	SECTOR	DESCRIPTION	LOGOS
<b>Algreen</b> <a href="https://algreen.tech">algreen.tech</a>	BIOMATERIALS	Algreen is a biotech company focusing on the development of environmental sustainable solutions based on algal products.	
<b>Arda Biomaterials</b> <a href="https://arda.bio">arda.bio</a>	BIOMATERIALS	Arda Biomaterials transforms waste feedstocks into smarter, circular biomaterials for fashion, home goods, automotive and more.	
<b>Biome BioPlastic</b> <a href="https://biomebioplastics.com">biomebioplastics.com</a>	PLASTICS MANUFACTURING	Biome Bioplastics' mission is to produce bioplastics that can challenge the dominance of oil-based polymers, and ultimately replace them.	
<b>Deep.Meta</b> <a href="https://deepmeta.io">deepmeta.io</a>	SOFTWARE	For every tonne of steel made, two tonnes of CO2 are produced. Using Deep.Meta's software to optimise production efficiency directly reduces the amount CO2 produced by minimising rework, making the steel produced greener.	

ORGANISATION	SECTOR	DESCRIPTION	LOGOS
<b>Eden Bio</b> <a href="https://eden.bio">eden.bio</a>	SYNTHETIC BIOLOGY	Eden Bio uses machine learning to improve protein yield, saving companies time and money, and helping them get their proteins to market faster.	
<b>Evotrack</b> <a href="https://evotrack.co.uk">evotrack.co.uk</a>	MOBILITY	Evotrack predicts future demand of EV charging and locates best spots for new charging infrastructure in cities.	
<b>Filia</b> <a href="https://filia.solar">filia.solar</a>	RENEWABLE ENERGY	Filia integrates solar panels into the fabric of our blackout blinds, meaning every window can embrace the limitless power of the sun.	
<b>Flybox</b> <a href="https://flybox.bio">flybox.bio</a>	SUSTAINABLE FOOD	Flybox® creates insect-based tech for farmers, food producers and supermarkets to upcycle waste into premium protein and frass for animal feed.	

ORGANISATION	SECTOR	DESCRIPTION	LOGOS
<b>Puraffinity</b> <a href="https://puraffinity.com">puraffinity.com</a>	ENVIRONMENTAL SERVICES	Puraffinity is a spinout company from Imperial College London that specialises in designing and manufacturing novel advanced materials for environmental benefit, such as removing harmful pollutants from water and wastewater.	
<b>RFC Power</b> <a href="https://rfcpower.com">rfcpower.com</a>	ENERGY STORAGE	Developing the next generation of grid scale energy storage solutions through low cost, long duration hybrid flow batteries.	
<b>Treeconomy</b> <a href="https://treeconomy.co">treeconomy.co</a>	CARBON OFFSETS	A carbon removal company harnessing technology to quantify and generate financial gain from natural capital.	
<b>ZeroBees</b> <a href="https://zerobees.com">zerobees.com</a>	BUSINESS CONSULTING	Supporting SMEs by understanding their carbon footprint using a sector specific platform, and then taking actions to reduce their impact - towards Net Zero and beyond.	

# University Tech Fair

Discover a huge range of the latest innovations across climate tech from four of the UK's leading universities at IP4U on 19-20 September 2023.

For the first time, the Technology Transfer Offices (TTOs) of the University of Cambridge, Imperial College London, Oxford University and University College London, are collaborating to introduce you to up to 80 world-leading researchers and their new technology advances in sustainability and future health.

Join us, and get to know our most inventive and talented academics. Enjoy the inside track on successful routes to licensing UK university IP, and benefit from opportunities to license complementary IP from multiple institutions.

## DISCOVER MORE AND REGISTER AT: [IP4U.TECH](https://ip4u.tech)

### Tuesday 19 September

#### Sustainability

Clean energy and storage  
Carbon Capture  
Batteries  
Environmental waste

### Wednesday 20 September

#### Future Health

MRI, ultrasound and endoscopy  
Enhanced imaging techniques  
Digital Health  
Machine learning

SCAN ME



# JAWDROP SUMMIT

**THANK YOU FOR HELPING US ADVANCE CLIMATE TECH  
SOLUTIONS.**

Videos, photos and updates from the event will be posted on our website

**VISIT** [WWW.WHITECITYINNOVATIONDISTRICT.ORG.UK](http://WWW.WHITECITYINNOVATIONDISTRICT.ORG.UK)



**FOLLOW US!**



[WWW.LINKEDIN.COM/COMPANY/WHITE-CITY-INNOVATION-DISTRICT/](http://WWW.LINKEDIN.COM/COMPANY/WHITE-CITY-INNOVATION-DISTRICT/)



[@WCIDLONDON](https://twitter.com/WCIDLONDON)



**IMPERIAL  
POLICY  
FORUM**

Undaunted 



**WHITE CITY  
INNOVATION  
DISTRICT**