



Technician Partnership Conference 2022

Technicians Stronger Together

Event Programme

6th July 2022:
10am – 4pm

Venue: Newcastle University,
Frederick Douglass Centre, Helix Site

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Research Culture



Carbon Net Zero



Technical Careers

Conference Timetable

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9.15 – 10.00 Registration

10.00 **Opening & Welcome** *Professor Julie Sanders*, Deputy Vice-Chancellor and Provost, Newcastle University

Themes	Sustainability		Research Culture		Technical Careers	
Parallel 1: 10.15	Net Zero in Labs: what can I do? <i>Newcastle University Sustainability Team</i>	Technicians to net zero; please!! <i>Jo Brown and Lisa McMillan, Edinburgh Napier University</i>	Building a positive research culture with everyone in our research community <i>Candy Rowe, Newcastle University</i>	The Innovation, Methodology and Application Research Theme @Newcastle University: A blueprint for team science, inclusive research culture and impact generation. <i>Dr Andrew Filby, Newcastle University</i>	All the things I wish I'd known about careers when I had a job <i>Steve Cross, Science Showoff</i>	Apprenticeships – Practical tips on the end-to-end journey <i>Caleb Wright, University of Birmingham & Karen Bailey-Smith, Sheffield Hallam University</i>
Parallel 2: 11.15	Moving towards sustainable labs, or how technicians successfully drove the implementation of Laboratory Efficiency Assessment Framework (LEAF) across all University of Exeter labs <i>Daniela Farina, University of Exeter</i>	Scary Movies, Board Games and Lab Equipment Total Life Costs <i>Andy Evans, Green Light Laboratories</i>	Past, Present and Future: Advancing culture for the technical community in UK higher education and research <i>Kelly Vere, University of Nottingham</i>		An overview of Science Council Professional Registration: Why apply, how to apply and an overview of Registers <i>Laurence Dawkins-Hall, University of Leicester</i>	Approaches to STEM Outreach using gaming <i>Sarah Dhanda, Enginuity</i>
	Sustainable Science and LEAF Update <i>Martin Farley, University College London</i>				AdvanceHE Fellowship for Technicians. <i>Alison Gregory & James Davoll, Newcastle University</i>	From technician to senior management <i>Clare Stevenson, John Innes Centre, Norwich</i>

12.15–13.15 Lunch

Book on the day: **Attracting people to industry through gaming**, *Helenna Vaughan-Smith*, Senior Product Manager, Enginuity
Sessions available: 12.20–12.40, 12.45–1.05, 1.05–1.25, 3.05–3.25. Max of 20 people per session

13.30 **Keynote: Net zero and carbon neutrality transitions and pathways**
Professor Lenny Koh, Cross Cutting Chief, Strategic Futures on Resource Sustainability and co-Head of the Energy Institute, The University of Sheffield

Parallel 3: 14.15	Net Zero in Labs: what can I do? Newcastle University Sustainability Team	Technicians to net zero; please!! <i>Jo Brown and Lisa McMillan</i> , Edinburgh Napier University	Building a positive research culture with everyone in our research community <i>Candy Rowe</i> , Newcastle University	The Innovation, Methodology and Application Research Theme @Newcastle University: A blueprint for team science, inclusive research culture and impact generation. <i>Dr Andrew Filby</i> , Newcastle University	An introduction to T Levels <i>Louise Doyle, Mesma</i>	How to network without feeling like your soul is shrivelling up <i>Steve Cross</i> , Science Showoff
	Scary Movies, Board Games and Lab Equipment Total Life Costs <i>Andy Evans</i> , Green Light Laboratories	Past, Present and Future: Advancing culture for the technical community in UK higher education and research <i>Kelly Vere</i> , University of Nottingham		From technician to senior management <i>Clare Stevenson, John Innes</i> Centre, Norwich	Apprenticeships – Practical tips on the end-to-end journey <i>Caleb Wright</i> , University of Birmingham & <i>Karen Bailey-Smith</i> , Sheffield Hallam University	

15.00 Refreshment Break

15.30 **Keynote: The Big Repair Project – the vital role of technicians in the repair economy of the future**
Mark Miodownik, Materials scientist & engineer; enthusiast; writer; occasional tv/radio presenter.

16.15 Close of conference – and Networking Event

Programme Overview

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Timings	Theme	Name of Presentation	Presenter	Synopsis
10.00	Keynote	Opening remarks	<i>Professor Julie Sanders</i> , Deputy Vice-Chancellor and Provost, Newcastle University	Newcastle University is extremely proud of its work as part of honouring the Technicians Commitment. It has been especially instrumental in thinking about inclusive collaborative research and education and recognising the wider contributions of colleagues across the University to projects and programmes. It has also been fundamental to our work on environmental sustainability and positive societal impact informed by the UN Sustainable Development Goals, and I will say a little about this as part of a broader welcome to the conference and the institution.
Parallel 1: 10.15 Parallel 3: 14.15	Sustainability	Net zero in labs: what can I do?	Representatives from the Newcastle University Sustainability Team	<p>Building on over a decade of work towards reducing Newcastle University's environmental impact, in 2021 the University set a target of net-zero carbon dioxide emissions by 2030, accelerating our action on climate change.</p> <p>Efforts to decrease carbon dioxide emissions have been driven and supported by many colleagues and students across the University, and laboratory users have made some huge strides.</p> <p>In this session we will describe some key actions that can be carried out in labs to contribute to net zero, and how management practices and culture change ensure that the actions are their most effective.</p>
Parallel 1: 10.15 Parallel 3: 14.15		Technicians to net zero; please!!	<i>Lisa McMillan</i> and <i>Jo Brown</i> both Technicians within the School of Applied Sciences, Edinburgh Napier University.	<p>In 2018 having had enough of the lab plastic pandemic we set out to find another way. We were thrilled when our waste provider agreed to take decontaminated lab plastics for recycling; this partnership is still fairly unique. The appetite for such change is huge, invitations to speak and share our story - across and beyond the HE sector - keep rolling in. Most institutions including ENU have recently pledged impressive carbon reduction targets. But here's the thing....</p> <p>Targets without reference to those technicians who can bring about the necessary change, are misguided. Only those working on the ground can identify and carry out the necessary change. This vital technical catalyst for change needs first to be recognised and acknowledged by themselves(!) and university/sustainability leadership teams. Mandates from above without an appreciation of lab processes are destined to fail. Technicians must be afforded protected time within their traditional roles, a sustainability budget and proactive line management. Enabled and empowered are overused words today but technicians must be both if targets are to be met. There is no plan B. Moreover, all institutions need to grasp the necessity for the 'sustainability technician' role...please!</p>

Timings	Theme	Name of Presentation	Presenter	Synopsis	Click to Book Now
Parallel 2: 11.15		Moving towards sustainable labs, or how technicians successfully drove the implementation of Laboratory Efficiency Assessment Framework (LEAF) across all University of Exeter labs	<i>Daniela Farina,</i> Project Manager, University of Exeter	<p>Sustainability in all aspects of our activity is necessary in our transition towards net zero. Research carried out by the universities is key to show the importance of sustainability and helps to drive that process. It is ironic that research labs themselves are a major source of carbon emissions and waste generation. For many years, little has been done to change this.</p> <p>Here I show the combination of top-to-bottom strategy and bottom-to-top implementation we used to ensure all University of Exeter labs became compliant with Laboratory Efficiency Assessment Framework (LEAF). This approach was driven by centrally assigned goals, but led by the technical team in each lab, who have the detailed knowledge of the facilities they work in. Centralised coordination and resource sharing minimised the amount of replication and allowed sharing of best practice. At the same time, tapping into the know-how of technicians ensured actions were accomplished with the specific requirements of each lab in mind.</p> <p>Thanks to this hybrid approach, all of the University of Exeter's 400+ lab units achieved LEAF certification within 12 months of the start of the project.</p>	
Parallel 2: 11.15		Sustainable Science and LEAF Update	<i>Martin Farley,</i> Sustainable Lab Advisor, UCL	<p>Nations, institutions, and companies alike have started to make net-zero commitments, but how will this affect scientific operations and growth? Laboratories are recognising their energy intensive nature, and assessing their immense consumption of consumables. More green lab efforts are growing around the world, though more standards are needed. LEAF, developed by UCL, is one such standard. It is now in use in over 70 institutions. This talk will include, an introduction to sustainable and green labs, a review of the existing standards, and an update on LEAF.</p>	
Parallel 2: 10.15 Parallel 3: 14.15		Scary Movies, Board Games and Lab Equipment Total Life Costs	<i>Andy Evans,</i> Green Light Laboratories	<p>A treat for all lab sustainability enthusiasts. Andy Evans from Green Light Laboratories will use his favourite scary movies to share the latest running costs data on lab equipment; highlighting the differences in performance between different makes, models and types of lab equipment. From there delegates will venture into the world of board games to discover lab cost factors (aka total life costs). Not only will delegates discover these factors but they will see how they interact and impact their day-to-day activities including procurement, best practice and policy.</p>	

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Parallel 1: 10.15 Parallel 3: 14.15	Research Culture	Building a positive research culture with everyone in our research community	<i>Candy Rowe</i> , Dean for Research Culture and Strategy, Newcastle University	Candy Rowe will talk about why building a positive research culture is so important, and the approach being taken at Newcastle University. Research culture belongs to everyone in our research community, and we all need to be a part of the change. The session aims to open up discussion about how changes in research culture can better support and recognise contributions to research from technicians and support their career development.	
Parallel 1: 10.15 Parallel 3: 14.15		The Innovation, Methodology and Application Research Theme @Newcastle University: A blueprint for team science, inclusive research culture and impact generation.	<i>Dr Andrew Filby</i> , Lead of the "Innovation, Methodology and Application (IMA)" research Theme and director of the Cytometry and single cell Unit. Faculty of Medical Sciences, Newcastle University	The crosscutting "Innovation, Methodology and Application (IMA) research theme within the Newcastle University Faculty of medical sciences (NU-FMS) is home to methodologists and technologists from both academic and technical job families. In this talk, Dr Filby will discuss the IMA Theme and how it has become the embodiment of team science and a healthy, inclusive research culture. He will also discuss how it has also given birth to a strategic horizon-scanning community called "NU Tech-Scan"; working across the whole spectrum from discovery science to clinical/translational studies and beyond to identify, evaluate and implement new technologies in a sustainable manner.	
Parallel 2: 11.15 Parallel 3: 14.15		Past, Present and Future: Advancing culture for the technical community in UK higher education and research	<i>Kelly Vere</i> , Programme Director, Technician Commitment (Science Council), PI – TALENT Programme and Director of Technical Skills and Strategy, University of Nottingham	Through personal experiences and perspectives, this talk will discuss the changes in landscape for the technician community in UK higher education and research over the past 25 years. It will cover key sector developments, including the advent of the Technician Commitment and the Research England TALENT programme, with a focus on the recently published TALENT Commission and its recommendations. After discussing past and present initiatives and developments, it will look to what the future holds for technical skills, roles and careers in education, research and innovation.	

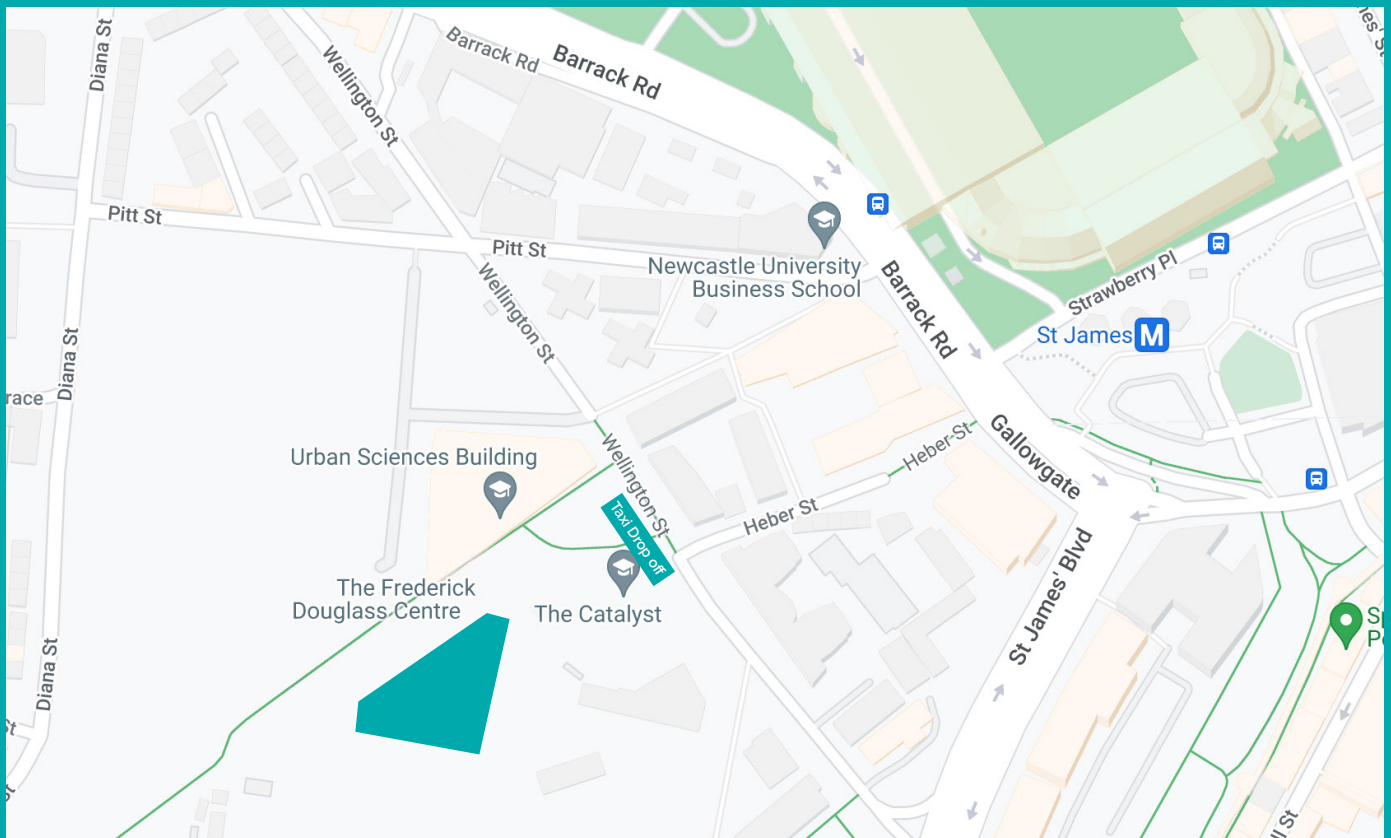
Timings	Theme	Name of Presentation	Presenter	Synopsis	Click to Book Now
Parallel 1: 10.15	Technical Careers	All the things I wish I'd known about careers when I had a job	<i>Dr Steve Cross,</i> Creative Director, Science Showoff	This talk and Q&A will look at the fundamentals of career building, and especially how to future-proof yourself and build resilience. It draws on the experience of the 50+ people I've mentored over the last few years, including drawing lessons about how you can improve things for yourself without waiting for permission.	
Parallel 1: 10.15 Parallel 3: 14.15		Apprenticeships – Practical tips on the end-to-end journey	<i>Caleb Wright,</i> Apprenticeship Manager at University of Birmingham and <i>Dr Karen Bailey-</i> Smith, Technical Development Manager at Sheffield Hallam University	This session is an amalgamation of 2 sessions that have been delivered previously as part of the NTDC TechMeet network. It will provide an overview of the process to aid you in planning, recruitment and appointment of an apprentice into your technical workforce in any subject area. We hope we can provide you with a starting point and an outline of the key things to consider but we will also provide links to a range of resources that contain much more detail, that you can refer back to.	
Parallel 2: 11.15		An overview of Science Council Professional Registration: Why apply, how to apply and an overview of Registers	<i>Laurence Dawkins-Hall,</i> Teaching Support Technician, University of Leicester	The talk will address the fundamentals of Science Council Registration, such as what registration is; an overview of the associated registers, namely RSciTech, RSci and CSci; a summary of Science Council licensed bodies and finally the mechanics of application via the online Science Council portal or CAP. The talk will also define but not touch upon the Five main competencies, which constitute the mainstay of CAP application and in addition a plethora of reference material associated with other more detailed presentations of mine and a Pad Let cache of materials on Registration, derived from the Science Council and licenced body websites.	
Parallel 2: 11.15		Approaches to STEM Outreach using gaming	<i>Sarah Dhanda,</i> Head of Policy & Partnerships at Enginuity	Join us to learn about how we have created games and resources to support teachers and those involved in outreach to inspire young people into Engineering and Manufacturing careers. "Skills Miner" has been built in Minecraft, a hugely popular gaming platform for the KS3 age group. We introduce young people to industry, careers, pathways and associated skills in an environment they find safe and engaging. Our HTML5 game is designed to help young people develop their CV and identify their hidden skills. Come and listen to find out more about how games can be used as an effective STEM outreach tool.	
Parallel 2: 11.15		AdvanceHE Fellowship is for technicians.	<i>Alison Gregory</i> & <i>James Davoll,</i> Newcastle University	Looking at how technicians can approach and support each other in applying for AdvanceHE Fellowship. Demystifying the process and addressing what activity counts? What level to go for? And, how?	
Parallel 2: 11.15 Parallel 3: 14.15		From technician to senior management	<i>Dr Clare Stevenson,</i> Head of the Directorate at the John Innes Centre, Norwich	I am proud to have had a technical career for nearly 30 years. This talk will focus on the highlights and challenges I have faced which in turn have led to career opportunities. Recently, I have started a new senior management role, leaving the lab and stepping outside my comfort zone. I want to encourage others to take opportunities and embrace challenges. I remain fully supportive of the Technician Commitment and in my new management role will bring a different perspective to improving the visibility, recognition and career progression for technical staff at the John Innes Centre and beyond.	
Parallel 3: 14.15		An introduction to T Levels	<i>Louise Doyle,</i> CEO Mesma, Strategic Senior Associate SDN	This session will provide an overview of T Levels. Introduced in 2020 as part of the post-GCSE education landscape, the roll-out continues until 2023 when all of the new T Level pathways will be available for students aged 16-18.	

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Parallel 3: 14.15		How to network without feeling like your soul is shrivelling up	<i>Dr Steve Cross,</i> Creative Director, Science Showoff	This will be a light-hearted quick-stop workshop about how to build your network. It's not about shaking hands and being weird, it's about finding ways to make friends who can help your career and ideas and finding them in your own way. The session is a mixture of self-reflection, group work and stealing ideas from all the people who've done the course over the last 6 years, including getting advice from your peers who are on a similar track to you.	
13.30	Keynote	Net zero and carbon neutrality transitions and pathways	<i>Professor Lenny Koh,</i> Cross Cutting Chief, Strategic Futures on Resource Sustainability and co-Head of the Energy Institute, The University of Sheffield	Strategies for successful transitioning to net zero and carbon neutrality require a hybrid of life cycle thinking and systems approach for resource sustainability management and sustainable development. Parallel and synergy between universities, industries and governments can be drawn, highlighting common and bespoke challenges and approaches. This keynote will show some key examples, enablers and pathways, and explain the importance of inclusive leadership and culture, across the entire organisations and environments. It will also illustrate the roles of stakeholders including technician.	
15.30	Keynote	The Big Repair Project – the vital role of technicians in the repair economy of the future	<i>Mark Miodownik,</i> Materials scientist & engineer; enthusiast; writer; occasional tv/ radio presenter.	To deal with issues such as plastic pollution and climate change all materials and products in future will need to be part of a circular economy – they need to be designed for repair, remanufacturing, and recycling. But how far away is that future? Almost all current products and materials in our homes and cities fail this circularity test. Thus, the task is enormous and means that we will need to redesign practically everything - and do it fast. In this talk I address the challenges of this paradigm shift with an emphasis on how technicians, who are one of the few professions already deeply embedded in the repair economy, are likely to play a leading role in this societal and economic change.	
Book on the Day: 12.20–12.40, 12.45–13.05, 13.05–13.25, 15.05–15.25. Max of 20 people per slot		Attracting people to industry through gaming	<i>Helenna Vaughan-Smith,</i> Senior Product Manager, Enginuity	Join us to find out more about our range of games and resources to support teachers and those involved in outreach to inspire young people into Engineering and Manufacturing careers. "Skills Miner" has been built in Minecraft, a hugely popular gaming platform for the KS3 age group. The games introduce young people to industry, careers, pathways and associated skills in an environment they find safe and engaging. This is your opportunity to have a go at playing the games under the expert tuition of our Minecraft experts.	

Travel and Accommodation

If you are planning to attend the conference and would like to book a hotel, we have a list of hotels with preferential rates, to find out more, go to our website: www.newcastlegateshead.com/TCP2022

Map & Directions for Frederick Douglass Centre – Newcastle Helix



The Frederick Douglass Centre is located on the new Newcastle Helix Site, close to St James Park.

By Train (15-minute walk from Central Station)

From Central Station cross the road onto Westgate Road. Turn left and walk up Westgate Road and then right onto Bath Lane. Cross over St James' Boulevard and continue on Bath Lane for 200m. The building is on the left-hand side.

By Metro (5-minute walk from St James Metro)

From St James Metro Station cross over Gallowgate and walk up Heber Street (with the Sandman Hotel on your left). The building will be in front of you.

By Bus (5-minute walk from Barrack Road)

The nearest bus stop is Barrack Road-St James Park. Walk down Barrack Road in the direction of the City Centre. Turn right onto Heber Street and continue to Wellington Street. The building will be in front of you.

By Taxi

Our postcode is NE4 5TG. Taxis can drop off on Wellington Street, just outside The Frederick Douglass Centre.