The UK Institute of Technical Skills & Strategy

A collaborative initiative by the sector for the sector







































Context



Press release

£490 million skills training boost to help get more people into jobs

Multimillion pound investment to radically improve university and college facilities and provide better teaching for students.

The Prime Minister, Rishi Sunak, said

- " Investing in education and skills will unlock future growth, boost productivity and help build the skilled workforce of the future.
- "That's why we're spending £490 million to support high-quality teaching and world class facilities in universities and colleges right across the country.
- "Whether it's in aerospace engineering or green tech, this funding will provide young people with the support they need to build a great career."

Education Secretary Gillian Keegan said:

"This investment is about making sure students get the highest quality training in key subjects which are driving economic growth. That means access to top of the range facilities which prepare people for the workplace, filling skills gaps and levelling up the whole country.





George Freeman MP, Minister for Science, Technology, Innovation and Space.

As Minister for Science, Research & Innovation, it is more important than ever that Britain delivers a bold, optimistic and ambitious plan to realise our vision for the UK as both a science superpower and an innovation nation. We can and should be the world's most innovative economy, inventing and adopting the new innovations and technologies that will solve the challenges of tomorrow.



UK Research and Innovation

Our strategic objectives provide the framework for how we will achieve our vision and realise our principles through world-class:





Technical Skills, Roles & Careers

- The whole research ecosystem of people, with diverse roles, are crucial to solving global challenges
- Technical roles are a vital part of that ecosystem yet traditionally experience a lack of visibility & recognition
- The UK has an identified shortage of technical skills and roles
- The technical community has an ageing population & EDI challenges
- If not addressed, this is a threat to achieving the % GDP increase in R&D

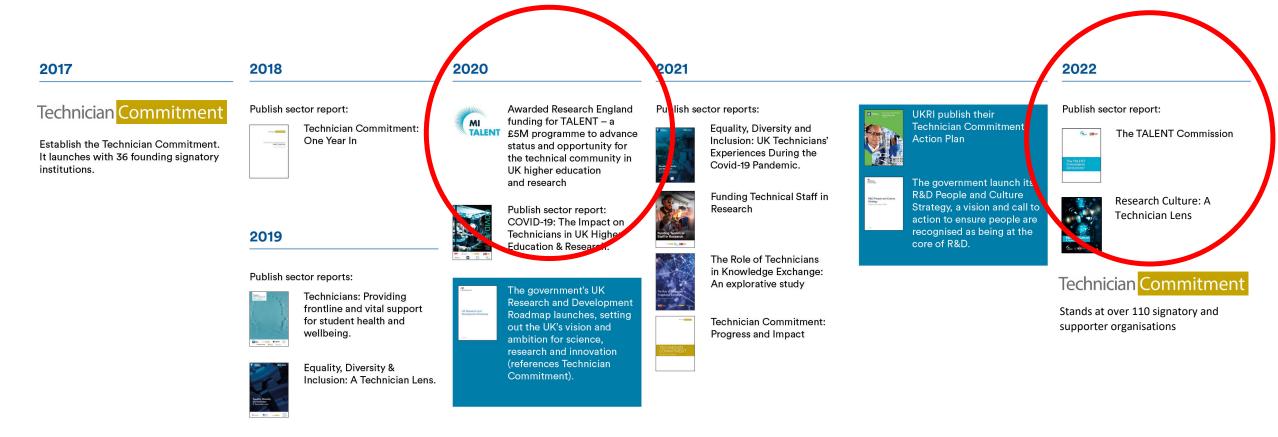


An Evolving Landscape



Increased sector awareness and engagement with the need to consider technical skills and roles strategically and drive culture change

An Evolving Landscape

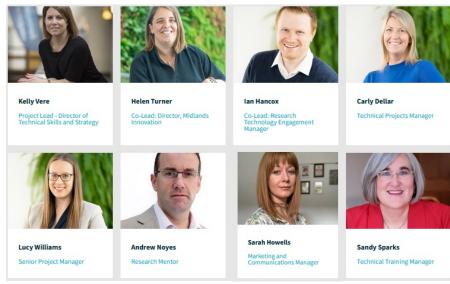


Increased sector awareness and engagement with the need to consider technical skills and roles strategically and drive culture change





MI TALENT: advancing status & opportunity for technical talent



















































Programme Workstreams

Policy commission

Culture change projects

Training and empowerment

Strategic insight into technical skills of the future

Driving culture change for the technical community

Career development for technicians through tailored technical training



skills of the future

Programme Workstreams



technical community

Career development for technicians through tailored technical training

The TALENT Board of Commissioners



Chair of the TALENT Commission



Head of Strategy, Marketing and Sales, Director, Talent and Skills, UKRI Thales Alenia Space UK





Chief Executive, Royal Society of Chemistry



Freelancer



Head of Research for the School of Geography, Earth and Environmental Sciences, University of Birmingham



President & Vice-Chancellor. University of Leicester



Director of Technical Learning. University for the Creative Arts



Director, Centre for Advanced Research Master of Churchill College. Computing, University College London University of Cambridge





Precision Development Facility Manager, RAL Space



Professor of Political Economy, King's College London



Vice-Chancellor, University of Brighton and Chair of University Alliance



Business Manager, Peridot Pertners



Director of Research. Research England



Isotope Support Scientist, British Geological Survey



Director of Engineering and Education, Royal Academy of Engineering



Pro-Vice-Chancellor, Aerospace. Transport, Manufacturing, Cranfield University



Head of Technical Services, Aston University



Head of University IT Support, Loughborough University

Who are they?

Technicians & technical Staff

Academic staff

VCs & PVCs

Directors, CEOs, & sector leaders

Representatives from...

Higher Education Providers

Research Institutes

Funding Bodies

Learned Societies & Academies

Industry

Charitable Foundations

STEM, Creative Arts, IT, etc

Key Themes Explored

Practice & Contributions Workforce Characteristics Funding & Resourcing Pathways, Progression & Professional Development Perception, Recognition & Representation **Policy Partnerships**

The TALENT Commission report





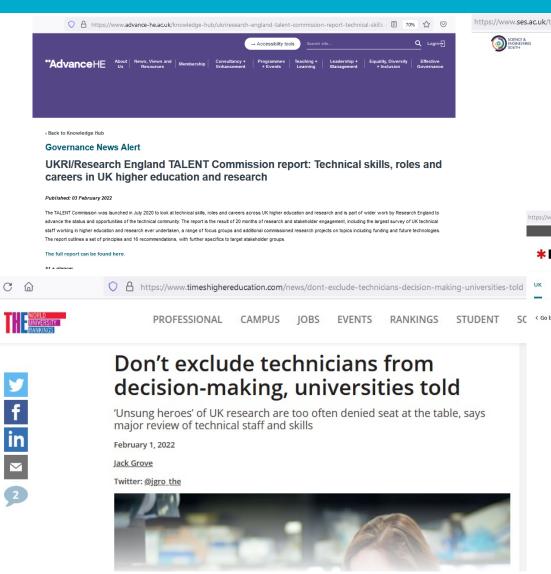


UK higher education and research

- A landmark policy report
- Research findings & evidence based recommendations
- Launched virtually in Feb 2022
- Parliamentary reception at the House of Lords in May 2022



Reception so far







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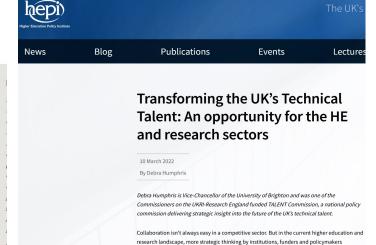
Talent Commission calls for better career opportunities for technical staff



○ A https://www.hepi.ac.uk/2022/03/10/transforming-the-uks-technical-talent-an-opportunity-for-the-he-and-research-sectors/

https://gw4.ac.uk/opinion/what-do-talent-commission-report-findings-mean-for-the-future-of-technicians-a-g

About Research and Innovation Talent and Skills GW4 Funding Opports







The TALENT Commission

Technical skills, roles and careers in UK higher education and research

Recommendation 16:

"The TALENT Commission advises the creation of a new collaborative entity, provisionally to be called the UK Institute for Technical Skills & Strategy [working title] that builds on the multi-stakeholder approach of the Technician Commitment, to represent and provide a conduit to the technical community, advising government, sector initiatives, funding bodies and other organisations. We advise that the new entity works closely with the professional bodies and membership organisations to which technical staff belong to ensure connectivity, voice and visibility for the technical community."

An Evolving Landscape

2017

Technician Commitment

Establish the Technician Commitment. It launches with 36 founding signatory institutions.

2018

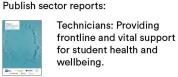
Publish sector report:



2019

Technician Commitment: One Year In

Publish sector report:





Equality, Diversity & Inclusion: A Technician Lens. 2020

TALENT

Awarded Research England funding for TALENT - a £5M programme to advance status and opportunity for the technical community in UK higher education and research



COVID-19: The Impact on Technicians in UK Higher Education & Research.



The government's UK Research and Development Roadmap launches, setting out the UK's vision and ambition for science, research and innovation (references Technician Commitment).

2021

Publish sector reports:



Equality, Diversity and Inclusion: UK Technicians' Experiences During the Covid-19 Pandemic.



Funding Technical Staff in Research



The Role of Technicians in Knowledge Exchange: An explorative study



Technician Commitment: Progress and Impact

2022

Publish sector report:

UKRI publish their

Technician Commitment

The government launch its

Strategy, a vision and call to

action to ensure people are

recognised as being at the

R&D People and Culture

Action Plan

core of R&D.



The TALENT Commission



Research Culture: A Technician Lens

Technician Commitment

Stands at over 110 signatory and supporter organisations

2023

Publish sector report:



Economic Benefits of implementing TALENT Commission recommendations



Awarded Research England funding to establish ITSS -£5.5M



Research Council

EPSRC Strategic Technical platform call (£6M)

Increased sector awareness and engagement with the need to consider technical skills and roles strategically and drive culture change



UK Research and Innovation ② @UKRI_News · 6h

Technicians are essential to research & innovation. Through @ResEngland , we're pleased to support the new UK Institute of Technical Skills and Strategy @UniofNottingham.

More: mitalent.ac.uk/UK-ITSS #UKITSS

"The Institute of Technical Skills and Strategy will build on the great work of our technical community and Technician Commitment leads across the UK by providing advocacy and strategic leadership for the diverse technical community.

"Technicians, technologists, specialists and related roles across the Research & Innovation sector are vital to our strategy to create a diverse and inclusive system, supporting and enabling individuals, and the UK, to reach their full potential."

- Melanie Welham, UKRI Executive Champion for People, Culture & Talent.





Research England @ResEngland · 11h

Technicians are vital to the UK research & innovation system. We're pleased to be contributing to enhancing skills and developing careers through our support of the new national Institute of Technical Skills and Strategy @UniofNottingham - mitalent.ac.uk/UK-ITSS #UKITSS

> "I'm pleased that Research England funding is supporting the new UK Institute of Technical Skills and Strategy.

"The Institute will enhance the skills base for technicians, help to raise the visibility of their vital contribution to UK research & innovation, and support their career development, and tackle a shortage of technicians.

"I look forward to seeing the impact the ITSS will have for technicians – from museum archivists right through to space technologists."

- Professor Dame Jessica Corner, Executive Chair of Research England



Research **England**

£5.5 million Investment to establish new **UK Institute for Technical Skills & Strategy**



Study

University of

Sir Colin Cam

Home

Press releas

Press releas

2019

2018 2017

2016 2015

Blog

<u>Feedback</u>

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National Institute of Technical Skills and Strategy to support UK research and innovation launched

By Reece Goodall

Mar. 23, 2023 Posted in News he <u>UK is set to welcome a new £5.5 million national institute</u>, with the aim of augmenting the country's technical capability and capacity across academia, research, education, and innovation. The initiative seeks to enable the UK to become a global powerhouse in science, engineering, and creative industries.



Our Vision

The UK is a global leader in science, engineering, and the creative industries, enabled by its technical capability and capacity across higher education, research and innovation, and technical careers are recognised, developed, respected and aspired to.



Our Mission

To accelerate and fulfil the potential of UK technical skills and careers across higher education, research and innovation.

ITSS will provide insight, influence policy, inspire innovation, foster integration, promote international leadership, strengthen industry connections, and ensure the long-term sustainability of technical skills and careers.

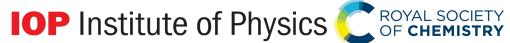


A Collaborative Approach

- A multi-disciplinary team with a strong track record in shaping, leading and delivering progress on this emerging agenda
- Academic, policy and community building expertise across the team
- A solid, cohesive and connected partnership, committed to working across the sector to deliver change
- Advisory Board comprised of sector stakeholders
- ITSS Technical Council to embed a culture of technical leadership





























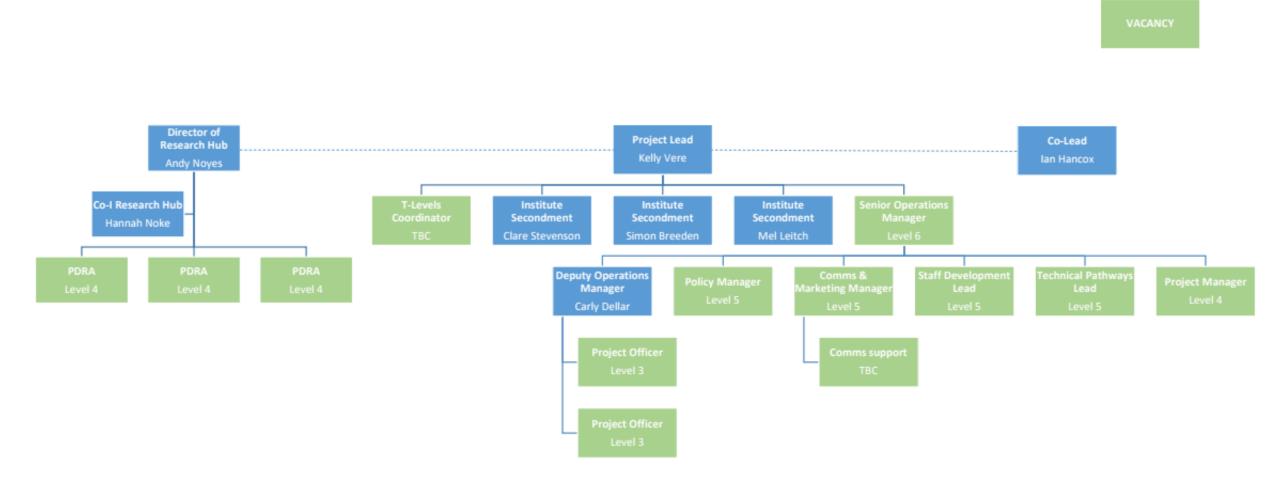








UK ITSS Organisational Chart



ITSS Hubs

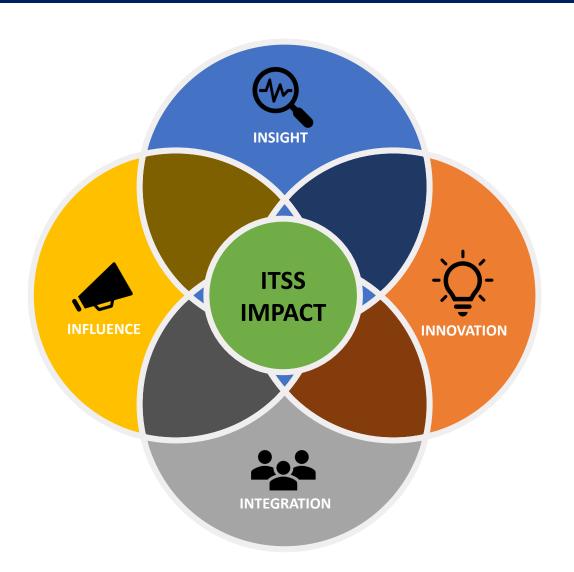


Research and understanding on technical roles, skills, careers, education, training and research culture and systemic change



INFLUENCE

Policy and Advocacy to inform, influence and interpret policy pertaining to technical roles, skills, careers, education and training



INNOVATION



Innovative Practice to develop and evaluate new ways of working to support technical skills and careers in R&D and beyond

INTEGRATION



Building Connectivity, Culture and Community across and beyond the sector around technical skills, roles, education and training

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M INSIGHT

Hub 1 – INSIGHT



Research and understanding on technical roles, skills, careers, education, training and research culture and systemic change

- Mapping the Landscape
- Understanding the Landscape
- Transforming the Landscape

















T-Level pathways to R&D careers



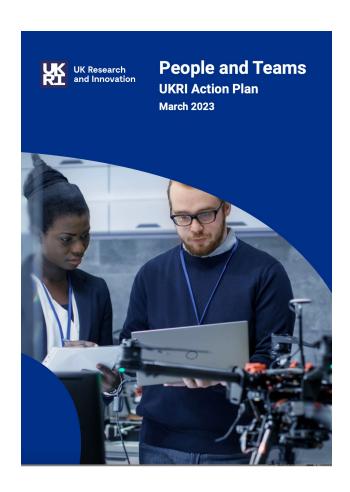


Engineering and Physical Sciences Research Council

Investment in new technical talent

IOP Institute of Physics





Supporting the establishment of the UK Institute of Technical Skills and Strategy (ITSS) to:

Provide strategic leadership, influence, insight and impact for technical skills and strategy across the UK.

4.4. Investment and UKRI staff support for an Institute of Technical Skills and Strategy. A national institute providing insight, influence, and innovative interventions to ensure that the UK has the technical capability and capacity across academia, research, education, and innovation to enable the UK to be a global superpower in science, engineering, and the creative industries, and that technical skills, roles, and careers will be recognised, understood, developed, respected, and aspired to.

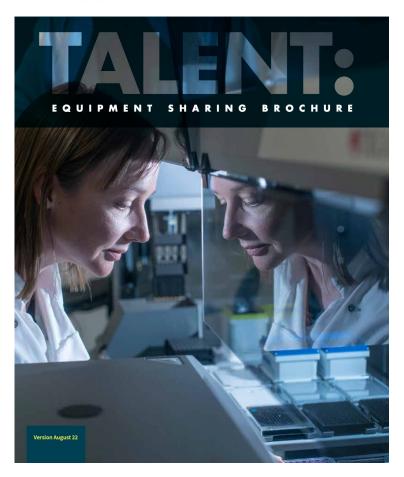
Continued collaboration with UKRI











Partnerships with other universities

Regionally, universities have been working together to collaborate on areas of shared interest for some time. These regional HE partnerships, like Midlands Innovation in the Midlands, N8 in the North, and GW4 in the West (see Figure 23), provide an opportunity for technical innovation, skill and expertise to be shared.

N8 Research Partnership (N8) University of Liverpool University of York University of Leeds Durham University he University of Sheffield Midlands Innovation **Aston University** Cranfield University **Keele University** University of Leicester Loughborough University University of Nottingham University of Warwick Midlands Enterprise Science and Engineering South King's College London Imperial College London Queen Mary University of London Great Western 4 (GW4) University of Bath University of Bristol Cardiff University University of Exeter Eastern Arc University of East Anglia University of Fssex University of Kent



National Technology & Technical Expertise Showcase

UK Technology Specialists Network



Alex Sossick

Head of Core Research
Laboratories, Natural History
Museum



Andrew Filby

Director, Newcastle University
Flow Cytometry and Single Cell
Technologies Shared Resource

Lee Murphy

Laboratory.



TALENT Co-Lead: Research Technology Engagement Manager, University of Warwick

Ian Hancox



Senior Experimental Officer at the University of Southampton

Julie Herniman



Senior Research Fellow and Head of NMR Spectroscopy, Department of Chemistry, University of Manchester

Ralph Adams



Head of Genetics Core. Edinburgh Clinical Research Facility, University of Edinburgh



Mass Spectrometry Core Manager and Senior Research Fellow in the Edinburgh Clinical Research Facility, University of Edinburgh

Natalie Homer



Director of the Bioscience Technology Facility, Vice-President Royal Microscopical Society, Head of Imaging and Cytometry, University of York

Peter O'Toole







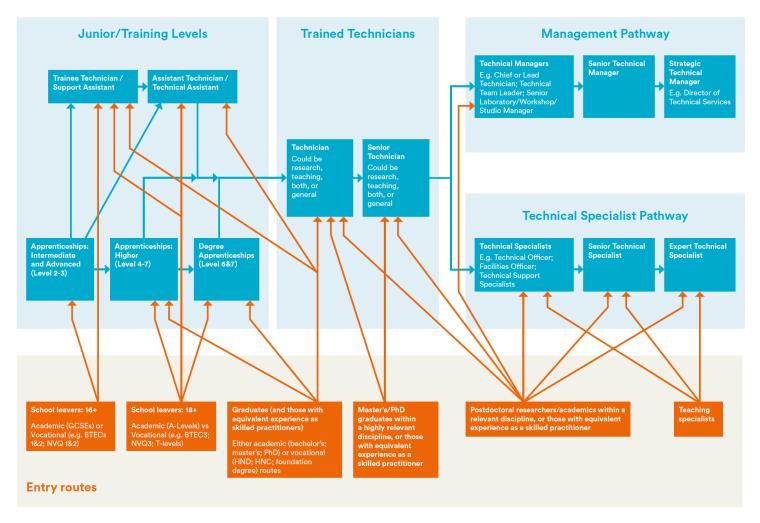


Figure 11: Possible entry routes into technical careers within UK HE and research.

Source: interviews with technical managers and career specialists from a range of UK institutions and discipline areas.

UK INSTITUTE FOR TECHNICAL SKILLS & STRATEGY

Technical Pathways Lab

Legend

- Linear career pipeline for UK technical staff.
- Possible routes of entry into the technical career pipeline.



Research Technical Professional Pathway

At any of these levels, transition or entry can occur to and/or from different sectors, such as between HE providers, Research Institutes, and industrial or commercial employers.

Global and UK Knowledge Exchange Placements



Strategic Technical Development: Herschel Programme for Women in Technical Leadership





Executive Programme in Strategic Technical Leadership





Technician Commitment









HI INDUSTRY

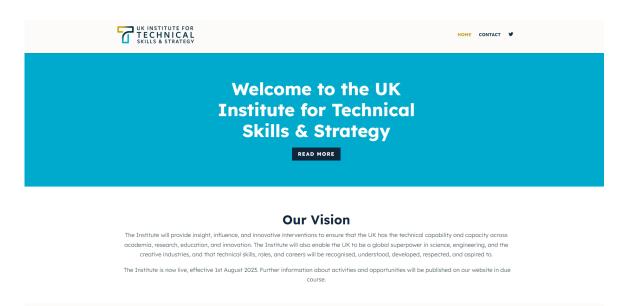
INTERNATIONAL

INSTITUTE SUSTAINABILITY





ITSS Website



https://itss.org.uk/

https://itss.org.uk/contact-us/



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* indicates required	
Email Address *	
First Name *	
Last Name *	
Organisation *	٦
Job title *	
Interested in	

- ☐ Insights and research
- Policy and advocacy
- . Technical skills and career development
- Technician Commitment

UK ITSS Governance

ITSS Management Board

Senior management team leading ITSS strategy and operations

Stakeholder Governance Groups

- ITSS Advisory Board (national stakeholder representatives to provide strategic advice and guidance)
- Technician Council (body representing the technician voice in ITSS activity)
- Technician Commitment Steering Board (to continue as current)

Funder Reporting

Annual financial and KPI reporting to Research England

Operational Policies and Procedures

 Compliance with University of Nottingham policies and procedures (e.g. HR, finance, procurement)

UK ITSS Technical Council







Resource

Events

Latest Nev

Signatorie

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22 MAR 2023 | 1:00 PM QUICK READS

UK ITSS Technical Council calls for members from the wider technical community

The UK Institute for Technical Skills and Strategy is forming a Technical Council, comprising of members from the technical community across the UK, to embed a culture of technical leadership.

Paul Gilbert University of Liverpool

Following the announcement of the UK's new £5.5 million national Institute for Technical Skills and Strategy, we've created an opportunity for technicians, technical leaders and those with specialised work experiences, across all levels and disciplines, to get involved in shaping the work of the Institute. The ITSS Technical Council is opening its membership to the wider technical community to implement a diverse perspective and inclusion of new voices across the UK. There are no minimum or maximum requirements, just a willingness to shape the national landscape for technicians.

Members are expected to serve 2-year terms, after which the Council will be refreshed to allow a wide range of ideas and individuals to be included. Members will meet quarterly to advise the ITSS on the needs of the community, contribute to progressing ITSS programmes/initiatives and provide input on the assessment of internal submissions. They will act as ambassadors for the Institute and its activity. Whilst national in scope, the ITSS will be physically located at the University of Nottingham. This is a voluntary role, with a commitment of up to 5 working days per year. Any reasonable performance expresses will be compensated

Paul Gilbert, Technical Manager, University of Liverpool and Chairperson, Technical Managers in Universities (TMU), will be co-chairing the Council said:

"The greatest reward of being a technical manager is in helping to guide and promote technical careers.

The new Institute of Technical Skills and Strategy will be in the vanguard of driving transformative technical skills development strategies and policy-making in the UK. The Technical Council will give technicians of all backgrounds the





Andy Filby Newcastle University