March 13, 2024

#SWDSS

NIH Scientific Workforce Diversity Seminar Series

How Does Diversity Impact Innovation in Team Science?

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National Institutes of Health
Office of the Director
Chief Officer for Scientific Workforce Diversity

World leading research and innovation solves global challenges

Collaborative teams drive success

Team Science needs diversity of talent, skills and insight

The Technical Community

"Research technicians and technology and skills specialists (collectively referred to as Research Technical Professionals or RTPs) have expert knowledge and technical competence in their field. These may include but are not limited to – data scientists, data engineers, archivists, informaticians, statisticians, software developers, audio-visual technologists, technical professional staff and individuals staffing and managing core research facilities across all disciplines".

UKRI 2023

Further example job titles:
Research Technician, Staff Scientist, Technical Specialist, Core Facility Manager, Operator, Research Infrastructure Staff, Shared Resource Laboratory Staff, Experimental Officer, Technical Manager, Technologist, Research Associate

AID

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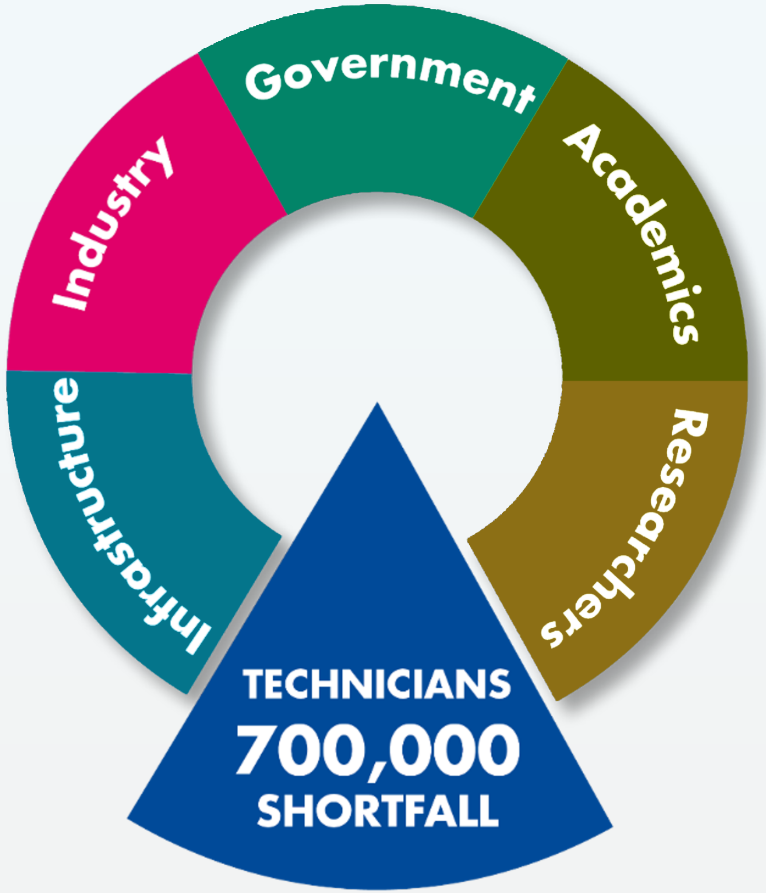
-But professor, I don't understand how this lab produces so much high quality research when it's full of **bottle washers!**

“I’m just the technician”

The Technical Community

- Technicians a vital part of teams yet experience a lack of visibility & recognition
- UK has an identified shortage of technical skills and roles
- Technical community has an ageing population & significant EDI challenges
- Technical career pathways are unclear/tricky to navigate
- Initiatives to ensure a pipeline of technical talent in HE & research are globally still few and far between – and coupled with a lack of visibility of technical careers makes it hard to attract/create pipeline
- Breadth and depth of roles considered technical – a complex landscape
- Lack of professional identity – negative connotations sometimes associated with the word ‘technician’



An Evolving Landscape in the UK

2017

Technician Commitment

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

2018

Publish sector report:

Technician Commitment: One Year In

2019

Publish sector reports:

Technicians: Providing frontline and vital support for student health and wellbeing.

Equality, Diversity & Inclusion: A Technician Lens.

2020

MI 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

Publish sector report: 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

UKRI publish their Technician Commitment Action Plan

The government launch s R&D People and Culture Strategy, a vision and call o action to ensure people are recognised as being at the core of R&D.

2022

Publish sector report:

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

UK INSTITUTE FOR TECHNICAL SKILLS & STRATEGY

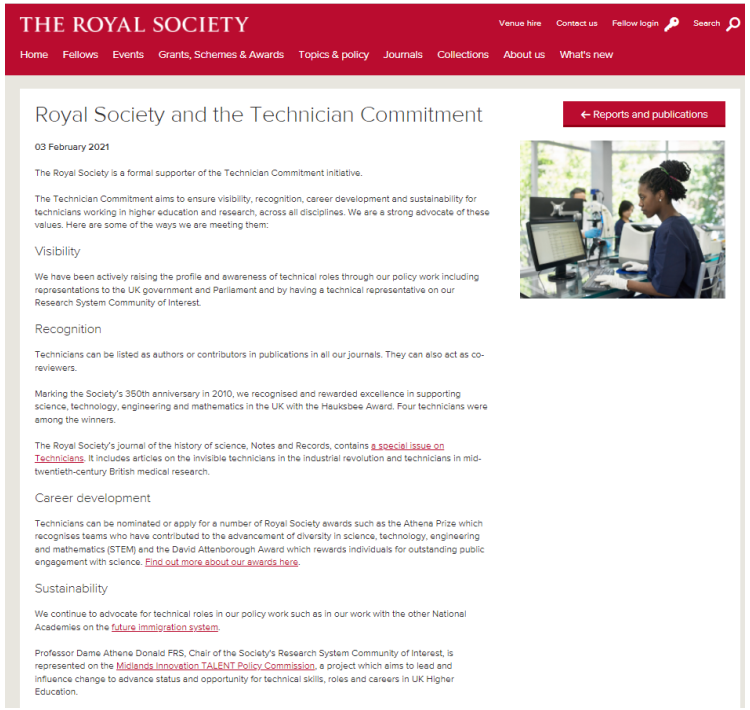
Awarded Research England funding to establish ITSS - £5.5M

UKRI Engineering and Physical Sciences 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

Support from sector institutions



THE ROYAL SOCIETY

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Royal Society and the Technician Commitment

← Reports and publications

03 February 2021

The Royal Society is a formal supporter of the Technician Commitment initiative.

The Technician Commitment aims to ensure visibility, recognition, career development and sustainability for technicians working in higher education and research, across all disciplines. We are a strong advocate of these values. Here are some of the ways we are meeting them:

Visibility

We have been actively raising the profile and awareness of technical roles through our policy work including representations to the UK government and Parliament and by having a technical representative on our Research System Community of Interest.

Recognition

Technicians can be listed as authors or contributors in publications in all our journals. They can also act as co-reviewers.

Marking the Society's 350th anniversary in 2010, we recognised and rewarded excellence in supporting science, technology, engineering and mathematics in the UK with the Hauksbee Award. Four technicians were among the winners.

The Royal Society's journal of the history of science, Notes and Records, contains a special issue on Technicians. It includes articles on the invisible technicians in the industrial revolution and technicians in mid-twentieth-century British medical research.

Career development

Technicians can be nominated or apply for a number of Royal Society awards such as the Athena Prize which recognises teams who have contributed to the advancement of diversity in science, technology, engineering and mathematics (STEM) and the David Attenborough Award which rewards individuals for outstanding public engagement with science. Find out more about our awards here.

Sustainability

We continue to advocate for technical roles in our policy work such as in our work with the other National Academies on the future immigration system.

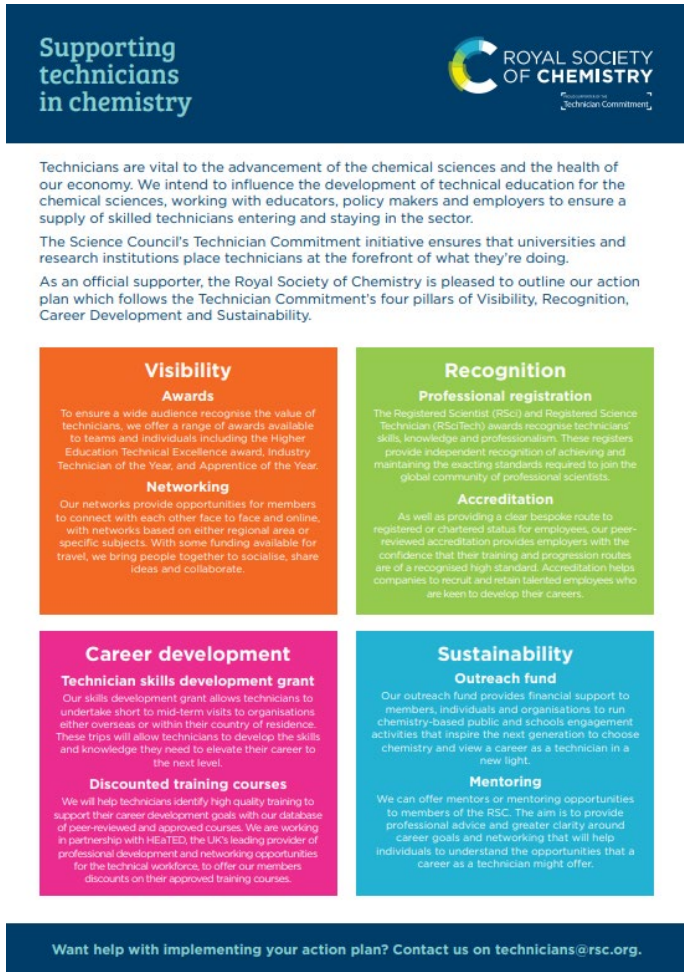
Professor Dame Athene Donald FRS, Chair of the Society's Research System Community of Interest, is represented on the Midlands Innovation TALENT Policy Commission, a project which aims to lead and influence change to advance status and opportunity for technical skills, roles and careers in UK Higher Education.

UK Research and Innovation

Technician Commitment

UKRI Action Plan

January 2021



Supporting technicians in chemistry

ROYAL SOCIETY OF CHEMISTRY

Technician Commitment

Technicians are vital to the advancement of the chemical sciences and the health of our economy. We intend to influence the development of technical education for the chemical sciences, working with educators, policy makers and employers to ensure a supply of skilled technicians entering and staying in the sector.

The Science Council's Technician Commitment initiative ensures that universities and research institutions place technicians at the forefront of what they're doing.

As an official supporter, the Royal Society of Chemistry is pleased to outline our action plan which follows the Technician Commitment's four pillars of Visibility, Recognition, Career Development and Sustainability.

Visibility

Awards

To ensure a wide audience recognise the value of technicians, we offer a range of awards available to teams and individuals including the Higher Education Technical Excellence award, Industry Technician of the Year, and Apprentice of the Year.

Networking

Our networks provide opportunities for members to connect with each other face to face and online, with networks based on either regional area or specific subjects. With some funding available for travel, we bring people together to socialise, share ideas and collaborate.

Recognition

Professional registration

The Registered Scientist (RSci) and Registered Science Technician (RSciTech) awards recognise technicians' skills, knowledge and professionalism. These registers provide independent recognition of achieving and maintaining the exacting standards required to join the global community of professional scientists.

Accreditation

As well as providing a clear bespoke route to registered or chartered status for employees, our peer-reviewed accreditation provides employers with the confidence that their training and progression routes are of a recognised high standard. Accreditation helps companies to recruit and retain talented employees who are keen to develop their careers.

Career development

Technician skills development grant

Our skills development grant allows technicians to undertake short to mid-term visits to organisations either overseas or within their country of residence. These trips will allow technicians to develop the skills and knowledge they need to elevate their career to the next level.

Discounted training courses

We will help technicians identify high quality training to support their career development goals with our database of peer-reviewed and approved courses. We are working in partnership with HEaTED, the UK's leading provider of professional development and networking opportunities for the technical workforce, to offer our members discounts on their approved training courses.

Sustainability

Outreach fund

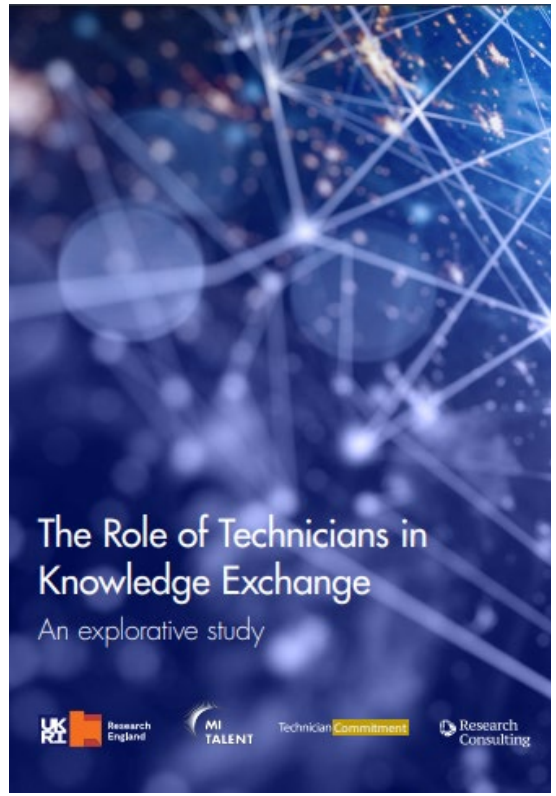
Our outreach fund provides financial support to members, individuals and organisations to run chemistry-based public and schools engagement activities that inspire the next generation to choose chemistry and view a career as a technician in a new light.

Mentoring

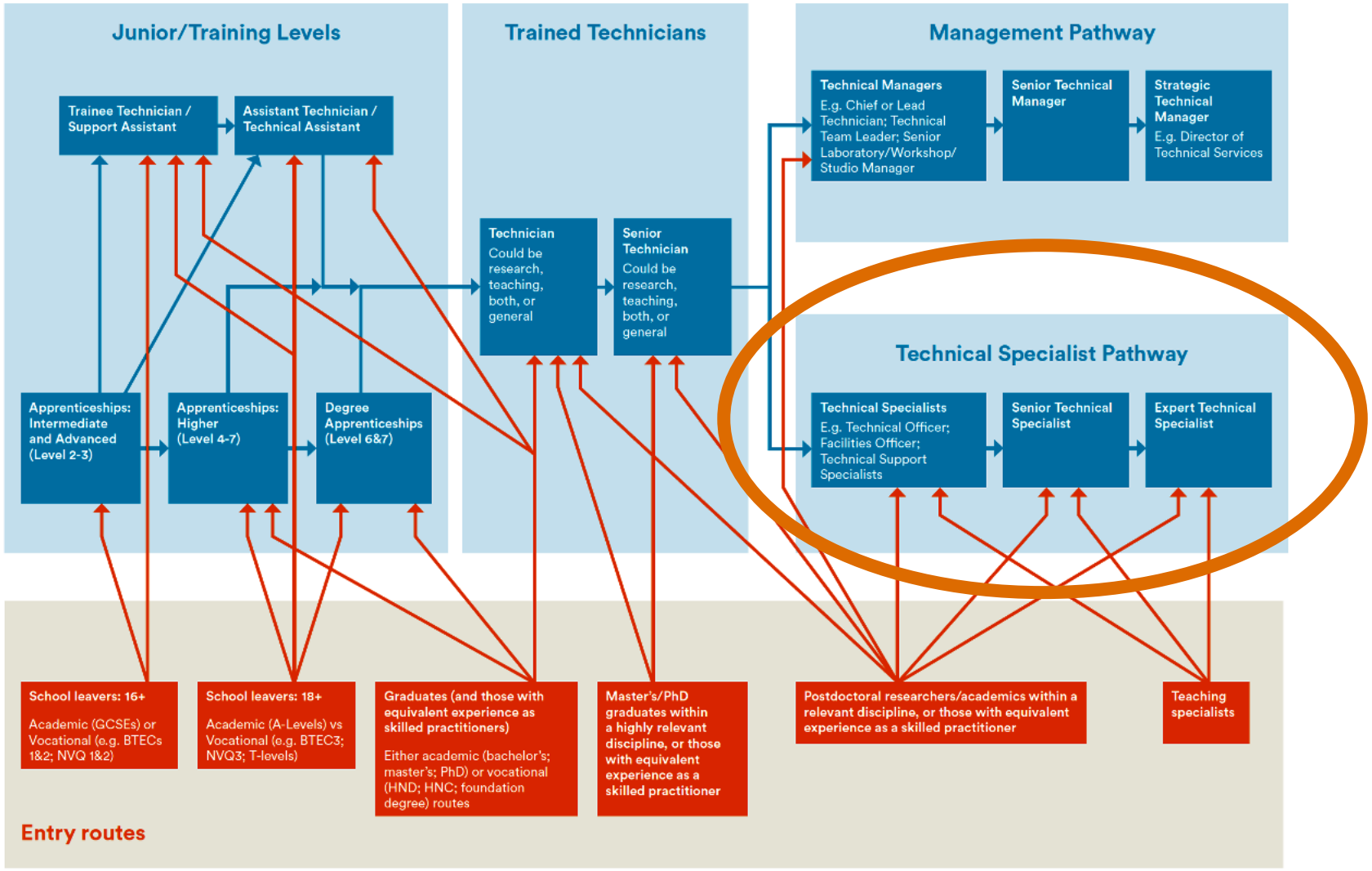
We can offer mentors or mentoring opportunities to members of the RSC. The aim is to provide professional advice and greater clarity around career goals and networking that will help individuals to understand the opportunities that a career as a technician might offer.

Want help with implementing your action plan? Contact us on technicians@rsc.org.

New research and policy insights into technical roles, skills and careers



New clearly defined career pathways for technical roles



Legend

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

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.

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.

International sharing of best practice

THE UNIVERSITY OF SYDNEY

Technician Commitment

THE UNIVERSITY OF SYDNEY

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University of Sydney joins Technician Commitment program

16 February 2023

Sydney becomes the first international signatory to UK-based initiative

Share

Progress and Impact

- The UK Technician Commitment has unlocked investment and is driving a change in culture within signatory institutions and supporting organisations (professional bodies etc)
- Attracted £11M+ in additional funding for targeted interventions
- Created a strong and vibrant community of practice
- Established career pathways, progression routes and funding mechanisms for technical roles
- Design and delivery of bespoke learning and development programmes for technical staff
- Engaged funders and policymakers, influencing government policy in this space
- Published evidence-based reports and a national policy commission - providing strategic insight into future technical workforce requirements of UK higher education and research
- Sharing best practice internationally to support vital technical workforce

UK INSTITUTE FOR
TECHNICAL
SKILLS & STRATEGY

UK INSTITUTE FOR TECHNICAL SKILLS & STRATEGY

Who We Are

Funded by

UKRI Research England

Home of

Technician Commitment

Our activities

- Centre for Research and Policy
- Innovative Practice
- Integration through strong communities

In collaboration with sector partners

THE ROYAL SOCIETY

Universities UK

IOP Institute of Physics

ROYAL SOCIETY OF CHEMISTRY

National Centre for Universities and Business

AdvanceHE

GW4

N8 RESEARCH PARTNERSHIP

Royal Society of Biology

CRAC The Career Development Organisation

vitae realising the potential of researchers

GATSBY

MI TALENT

MIDLANDS INNOVATION

Technician Commitment

University of Nottingham UK | CHINA | MALAYSIA

Science Council

TMU TECHNICAL MANAGERS in Universities

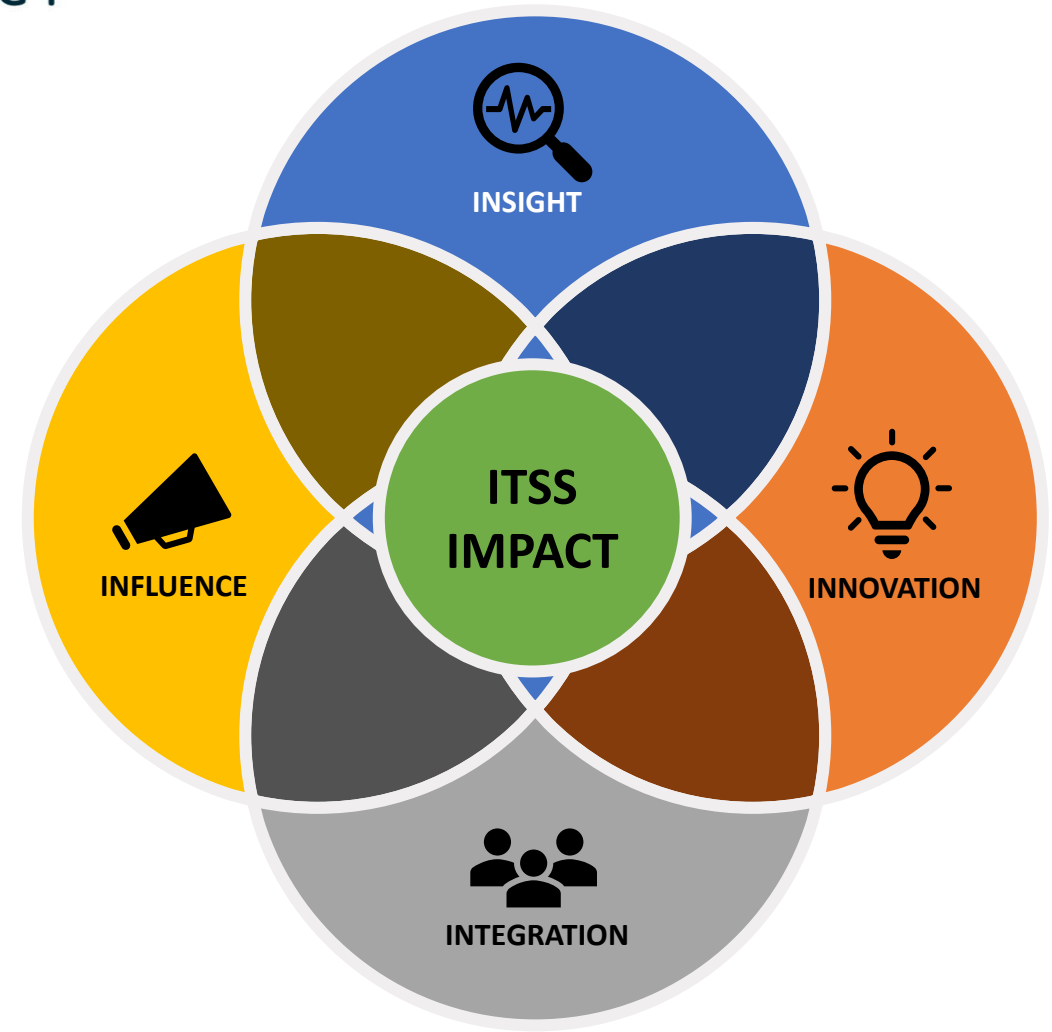
UK INSTITUTE FOR TECHNICAL SKILLS & STRATEGY

INSIGHT

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

Summary

- Research and innovation is a team sport
- The technical workforce are a key component of that team
- We've been working for several years to change the culture for the technical community
- UK ITSS is taking this work forward
- Learn more at www.itss.org.uk
- Get in touch: enquiries@itss.org.uk

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