

A photograph of a male technician in a grey work shirt and blue gloves, working on a complex industrial machine with many wires and components. He is holding a small blue tool and looking at a notebook. The background shows more of the industrial environment with blue structural elements.

Cranfield's Technician Commitment: Progress so far and future plans

September 2024

Contents



- 3** Foreword
- 4** Technician Commitment and TALENT
- 6** The story so far
- 7** Support network
- 8** Learning and development
- 10** Events for engagement
- 11** Recognition for our technicians
- 12** Outreach and public engagement
- 14** Our commitment continues

Foreword

We are delighted to introduce this short report summarising our significant Technician Commitment achievements during the past seven years. Technicians are a critical part of our workforce, essential to the delivery of our mission to develop and deliver applied research and innovative education in science, technology, engineering and management. More widely, educating, training and retaining science, technology, engineering and mathematics (STEM) technicians is considered vital to the success of the UK economy.

During the last seven years, the Technician Commitment has created a cultural shift within higher education and research institutions. Cranfield University is now among over 120 signatories and is at the forefront of this cultural change through our involvement with initiatives such as the Midlands Innovation TALENT Project. We acknowledge there is still a need for continued and sustained advocacy and actions to support and enhance our technical workforce. Our 2024-26 action plan builds on the progress we have made. To those reading, we ask you to consider what you can do to support the recognition, visibility, sustainability and career development of technicians both within our institution and beyond.



Technician Commitment and TALENT

The Technician Commitment is a university and research institution initiative, led by a steering board of sector bodies, hosted by the UK Institute for Technical Skills and Strategy to help address key challenges facing technical staff working in teaching and research.

The Commitment aims to ensure visibility, recognition, career development and sustainability for technicians working in higher education and research, across all disciplines.

Cranfield was a founding signatory of the Commitment in 2017. Through the Commitment we pledge to our technical community that they and their work would be acknowledged and appreciated in the wider Cranfield community.

In 2020, as part of the Midlands Innovation consortium, Cranfield University became involved in the TALENT Project. The TALENT Project is supported by a £3 million grant from Research England Development fund to lead and influence change to advance status and opportunity for technical skills, roles and careers in UK higher education and research, which fundamentally supports the themes of the Technician Commitment. Significant outputs of this project have been the TALENT Commission Report and the establishment of the national Institute for Technical Skills and Strategy, alongside a multitude of training and development opportunities for technical staff.

All technical staff, as well as our IT staff are included within the Technician Commitment remit and are eligible to apply for the courses and funding provided by the TALENT Project.

Visibility

Ensure all technicians within the organisation are identifiable and that the contribution of technicians is visible within and beyond the institution.

Recognition

Support technicians to gain recognition through professional registration and external awards schemes.

Career development

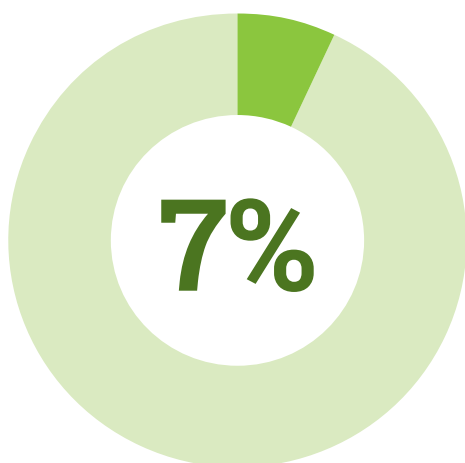
Enable career progression opportunities for technicians through the provision of clear, documented career pathways.

Sustainability

Ensure the future sustainability of technical skills across the organisation and that technical expertise is fully utilised.



Our technical community



of our workforce
are technicians

with **121 technical staff**
across our areas of
expertise



as of 31 July 2024

The story so far

After signing the Technician Commitment in 2017, we further pledged to action the TALENT Commission employer recommendations in 2022. This includes taking a strategic approach to future technical skills and plugging any future skills gaps, addressing existing equity, diversity and inclusion (EDI) challenges, costing technicians on grants and proposals consistently, broadening technical career pathways and expanding technician job families, making it easier to attract the best talent to create a diverse technical workforce.

Since 2017, our action plans have seen much progress against the identified targets. The plan focused on the following key areas:

- Ensuring continued governance and leadership for the Technician Commitment.
- Raising awareness of the Technician Commitment.
- Reviewing our baseline data.
- Clarifying our technical careers.
- Supporting technical staff to achieve.
- Keeping technicians up to date.
- Acknowledging the contribution technical staff make.

Technician's contribution during Covid-19

Many of our technicians were involved in Covid-19-related activities. Technicians in our Centre for Design Engineering produced parts for breathable face shields that had filter units on them for a local business and also 500 ESA visor surgical masks which were donated to Milton Keynes University hospital.

In our water area, technicians used the point-of-use laboratory to search for traces of Covid-19 in wastewater from prisons and schools to assist in early detection of potential outbreaks.

Support network

Our Technician Commitment Working Group meets periodically and looks at the actions and initiatives that can be taken across the University to support the key areas of the Commitment and ensures the delivery of our Technician Commitment action plan. Progress on this is reported at the technician forum.

The quarterly technician forum is run by technicians for technicians. It is designed to raise the visibility of technicians in the University, as well as provide an opportunity to network, learn from each other and discuss current topics. There is also a quarterly, vibrant apprentice network that is well attended.

The forums are organised by a small working group who have a passion for engaging technicians in networking opportunities and development within their role.

To ensure that the technical community is represented at University committees, a representative sits on the Research Committee, Council and Ethics Committee.



"The Technician Commitment is obviously well-embedded within Cranfield University with support at every level."

UK Institute for Technical Skills and Strategy

Learning and development

We have had over 34 technicians take part in Midlands Innovation Talent technical development activities including:

- Technical development workshops during the year.
- Preparing for Technical Management and Leadership programme.
- Technical career mentoring/coaching programme.
- Collaborative Leadership programme.



Development opportunities are included in the monthly training bulletin sent to all technicians.

Through the career pathway working group, there has been progress in developing the technical career pathway. This has included defining the overall job family structure, benchmarking, consulting on and launching the new pathway.

Five technicians have successfully completed the Herschel programme for women in technical leadership and staff have also been included in the Cranfield Women as Leaders programme.

“There is always scope for personal and professional development at Cranfield and opportunities to work on new challenges. I’ve had my first paper published as a co-author, which I am hoping will be the first of many.”

Jarryd Braithwaite,
Cranfield Technician 2009-2022,
(MBA 2023 and Advanced
Mechanical Engineering
MSc 2019)



Apprentices

We currently have 18 recruited technical apprentices and have just recruited a further laboratory science apprentice who starts in September 2024. We also have six existing technical members of staff who are enrolled on apprenticeship programmes relevant to their field – five of which are enrolled on degree apprenticeships.

We successfully hosted our first Science T level placement during January – June 2024 in the Environmental Analytical (EA) department. This placement consisted of 45 days working with the EA team and provided the T Level student with a placement relevant to his studies and meaningful work experience. They were an excellent addition to the EA team and also provided their host manager (who had previously completed an apprenticeship) with some useful management experience. We hope to host further T Level placements across the University over the next few years.

Events for engagement

We offer plenty of opportunities for the technical community to come together and network. Activities have included:

- Grant funding awareness and opportunities for technical staff.
- How to deal with research outcomes around sensitive topics.
- Publishing papers for technicians.
- Technicians and IT services workshop.
- Blogs and social media for technicians.
- TALENT roadshow.

There was also a technician's trip to Shrivenham Ministry of Defence (MOD) secure site.

The Annual Technician's Event runs during the autumn and is a key opportunity for updates and to celebrate the successes of the past year. In 2021, this event ran for a whole week with at least one session each day.



Recognition for our technicians



Apprentice of the Year

Sam Darcy-Page one of our apprentice technicians completed his Level 6 Ordnance Munitions and Explosives Degree Apprenticeship this year. Sam achieved a BSc with honours and was awarded the 'Apprentice of the Year' award by the Institute of Explosive Engineers.

Papin Prizes

Cranfield technicians are regularly nominated for the Papin Prizes that recognise the skills, talent and experience of technicians in higher education and research.

2019: Stephen Staines, Jane Hubble and Barry Walker.

2021: Jarryd Braithwaite.

2023: Jane Hubble and Ian Hakon.

Times Higher Education Awards 2020

Jane Hubble, Head of Technical Services at Cranfield was highly commended in the Outstanding Technician of the year category. Jane has spent her whole career in the technical community within industry and higher education and was the first female technician to reach the senior post of Head of Technical Services at Cranfield.

Graduation beadle

To celebrate the role our technician's play in the education of students, they have been chosen for the ceremonial role of beadle at recent graduation ceremonies.



Keith Hurley,
IT Training &
Support Specialist
(Beadle 2024)



Stephanie Kimpton,
Senior Technician
(Beadle 2023)

Outreach and public engagement

Aligned to Cranfield's distinctive strengths, we inspire education and career choices in STEM (science, technology, engineering, maths) among diverse audiences and our technical community are at the heart of helping us to achieve this.

Royal Academy of Engineering – Ingenious Programme

In a day packed full of activities, year 5 and 6 pupils came to Cranfield for a special engineering-focused event. This event was the culmination of a year-long outreach project by Cranfield, funded by the Royal Academy of Engineering's Ingenious awards. Our microscopy technicians delivered a session where they linked the lecture room to the electron microscope introducing the school children to the world of electron microscopy.



"The pupils were 'buzzing' on the coach home, talking about their favourite parts of the day. I hope it goes some way to inspiring pupils to consider science or engineering careers one day."

Victoria Giles,
Teacher, Putnoe Primary School

IET FIRST® LEGO® League

Cranfield hosted the Milton Keynes regional tournament for the Challenge series, with over 80 children taking part. Two of our technical staff took on hosting and organising the tournament. This involved liaising with the IET and school/club leaders, arranging volunteers and delivering training to ensure a well co-ordinated event. The students took part in robot challenges and did group presentations about their projects to try and win a place at the national finals. The technicians will be repeating their event organisation role by hosting another tournament in 2025.

World's smallest coronation tribute

Technicians in Cranfield's materials characterisation area proposed the idea to make a miniature golden royal monogram to celebrate King Charles III's Coronation. Gold microscopic letters – each a fraction of the width of a human hair – form part of a commemorative piece. Using recycled gold, it depicts the official cyphers of King Charles III and Queen Camilla and lettering below reads: "Westminster Abbey 6th May 2023".

Watch a video about the making of the piece:



Promoting technical roles at recruitment fairs

Technicians have volunteered to take part in recruitment fairs to give potential new staff members a taste of what it is like to work in a technical role at Cranfield.



Our commitment continues

2024-26 action plan

We are dedicated to building on the achievements of the last seven years. Our focus will be to continue reviewing and improving on our current activities and developing new initiatives.

Our plan for the future is focused around five key areas:

- Ensuring continued governance and leadership for the Technician Commitment.
- Reviewing and continuing previous activities.
- Career development opportunities for our technical community.
- Ensuring the sustainability of our technical staff.
- Increasing the visibility and representation of our technical colleagues.

Key highlights from the new plan

Career development

- Review our technical career pathway in collaboration with UK Institute for Technical Skills and Strategy Career Pathways Action Group.
- Provide wider support for 10 days annual development time for technical staff.
- Promote professional recognition for teaching activities undertaken by technicians.
- Cranfield “ideas fund” will give technicians the opportunity to apply for funding from the University to try out ideas delivering greater efficiency or promote innovative methods.

“The ‘Ideas Fund’ was considered to be an innovative idea, that if successful could be sector leading.”

UK Institute for Technical Skills and Strategy



Sustainability of technical staff

- The use of technicians in both teaching and research activities needs to be adequately resourced. We will achieve this by ensuring that we develop clear guidelines on how to cost technicians into proposals being submitted and providing an appropriate mechanism for technical managers to see where their technicians have been included on a proposal.
- The inclusion of our technical team outside of standard teaching and research activities should be encouraged. We will support technicians to attend and support outreach and public engagement events and for them to take part in sector policy discussions.

Increasing visibility and recognition

- Improving the equity, diversity and inclusion (EDI) across our technical community is an important target during the next action plan period. We will ensure that there is technical representation at all levels of University committees related to EDI and we will promote technician-specific initiatives like the Herschel Programme.
- To ensure that the wider community become more aware of the role of technicians within the University sector we will promote opportunities for our technicians to be involved in national events, for example; International Women in Engineering Day and Soapbox Science.
- Recognition is equally as important as visibility. We will continue to encourage the nomination of technicians for both internal and external awards.



Cranfield University
Cranfield
MK43 0AL, UK
T: +44 (0)1234 750111
www.cranfield.ac.uk

Find out more:

