TALENT:
ADVANCING STATUS AND OPPORTUNITY FOR THE TECHNICAL COMMUNITY
TALENT is a project to lead and influence change to advance status and opportunity for technical skills, roles and careers in UK Higher Education (HE). It is led by the Midlands Innovation (MI) consortium of eight universities in collaboration with key stakeholder and industry partners. It is funded by Research England, the eight MI universities and several collaborating organisations and was announced by the Science Minister, Amanda Solloway MP in February 2020.

"Technicians play a vital role across our universities, research centres and industry sectors. It is great to see that Midlands Innovation is leading the way in supporting technicians who work so hard across the UK to teach students and underpin innovation."

Amanda Solloway MP, Minister for Science
Technicians and technical staff are fundamental to university life. They enable teaching, research and outreach activities. As a partnership founded on supporting research excellence, Midlands Innovation recognises that ensuring recognition and opportunity for our technical community helps us to achieve our aims.

The Midlands Innovation universities have over 2,100 technical staff working in their institutions. Since 2015 the Midlands Innovation partnership has embarked on a programme of activities designed to increase the visibility of our technical workforce, to recognise its excellence and to start to think about collaboratively supporting its career development.

The Technician Commitment is a university and research institution initiative, led by a steering board of sector bodies, with support from the Science Council and the Gatsby Foundation. The Commitment aims to ensure visibility, recognition, career development and sustainability for technicians working in HE and research, across all disciplines. All eight members of the Midlands Innovation partnership were founding signatories of the Technician Commitment in 2017.

Our work in this area is led by our Technical Staff Strategy Committee which brings together technical managers from across the partnership to support our institutional responsibilities under the Technician Commitment and to explore innovative ways in which we can collaborate to further support our technical staff.

Our major areas of activity have included:

- Establishing the UK Higher Education Technicians Summit; a national conference for technical staff working in higher education and research.
- Establishing the Papin Prizes; a series of national awards to publicly recognise technical excellence in academia.
- Piloting a collaborative placement programme to enable career development opportunities for our technical staff.
- Piloting the delivery of shared soft skills training tailored for our technical colleagues.

TALENT allows us to make a step change in the scale of our delivery in this collaborative agenda. Through three focussed work packages, TALENT will lead and drive new understanding of, and a strategic approach to, the development of technical skills in universities and a stronger, more efficient, more engaged, more diverse and invested in technical community - a community who work in a culture where their contributions to research, teaching and knowledge exchange are recognised, their development and progression is encouraged and supported and their roles as professionals in HE are respected and aspired to.

“I am delighted that Midlands Innovation have been awarded this investment. TALENT will shine a light on the important role that technicians play in our universities and will enable us to deliver a step change in the career development opportunities we provide to this vital workforce.

“In addition, TALENT is an excellent example of how universities can collaborate to innovate in their operation. Collectively we have over 2,100 technicians working in our eight universities. We will be sharing information on the nature of our technical workforces, collaborating to create new development opportunities for our technical staff and trialling interventions to address issues such as equality, diversity and inclusion and representation of technicians. By doing this in partnership we can share different approaches and experiences whilst creating a vibrant, connected and empowered technical community.”

Professor Alec Cameron, Vice Chancellor and Chief Executive of Aston University and Chair of Midlands Innovation.
BUILD AN UNDERSTANDING OF THE FUTURE REQUIREMENTS FOR SKILLED TECHNICIANS IN THE UK HE SECTOR.

DELIVER A PROGRAMME OF TRAINING AND DEVELOPMENT OPPORTUNITIES FOR THE MIDLANDS INNOVATION TECHNICAL COMMUNITY OF OVER 2100 FTE AND SHARE THE LEARNING WITH THE SECTOR.

WORK COLLABORATIVELY TO ADVOCATE AND DELIVER A CHANGE IN CULTURE THAT WILL RAISE THE PROFILE OF TECHNICAL CAREERS, ROLES AND CONTRIBUTIONS, ENHANCING CAREER PATHWAYS AND POSSIBILITIES.

ADVOCATE AND DEVELOP OPPORTUNITIES FOR TECHNICIANS IN THE HE SECTOR, ENSURING TECHNICAL CAREERS ARE SUPPORTED, DEVELOPED, RESPECTED AND ULTIMATELY ASPIRED TO.
Technical expertise is critical to the success of UK HE and is crucial to growth of the UK economy. As a highly skilled workforce, technicians underpin universities’ primary activities by providing the technical excellence essential to enable research, teaching, knowledge transfer and innovation. Many technicians are additionally researchers and educators in their own right, teaching and training students and researchers at every level. Current data estimates over 30,000 technicians work in UK universities under a vast range of job titles – including technicians, skills specialists, technologists, experimental officers and laboratory managers. In Midlands Innovation universities we have a technical community of over 2100 FTE who are supporting, for example, over 11,000 students enrolled on postgraduate research programmes in addition to the support they provide for undergraduate teaching and the delivery of research grants and contracts.

Despite their vital role, the technical community is often referred to as an ‘invisible workforce’ and is a relatively understudied occupational group in HE. As a consequence, the UK HE sector lacks an effective understanding of the technical workforce; roles are ill-defined, and little is known about future technical skills requirements. Career pathways and professional development is lacking and an ageing technical workforce means that large numbers of highly skilled technicians are retiring every year, without appropriate planning for knowledge retention.

BACKGROUND

The UK faces an identified shortage of technicians across all sectors, which poses a serious threat to innovative strength and global competitiveness. This threat also applies to the UK Government’s Industrial Strategy aim to raise UK investment in R&D to 2.4% of GDP. Meeting this target will require increased technical capacity both within the HE sector and in the private sector, as recognised recently at the Research England Engagement Forum (September 2019).

Since 2017, the sector’s Technician Commitment initiative has generated significant momentum and galvanised activity to ensure increased visibility, recognition, career development and sustainability of technical careers, skills and roles across its 89 signatory institutions. Universities and research institutes are publishing plans to meet the Technician Commitment’s core aims and institutional activity is beginning to show evidence of change. There is however, still much to do to address the challenges.
INTRODUCTION TO TALENT THEMES

TALENT consists of three focussed themes:

**THEME 1**
Strategic insight into technical skills of the future

**THEME 2**
Driving culture change for the technical community

**THEME 3**
Career development for technicians through tailored technical training
Theme One, for the first time, delivers strategic insight into the HE technical skills of the future through a national policy commission.

TALENT will investigate the higher education sector’s future need for technical talent. Following a series of evidence gathering sessions, a board of commissioners, chaired by Professor Sir John Holman, will provide a report and a series of recommendations to universities, research funders and government on the future need for technical talent in the sector.

Theme Two consists of a number of culture change projects to test and pilot across our institutions.

Through a technician lens we’ll look at research culture, equality, diversity and inclusion, technician voice and representation, equipment sharing and industry collaboration. In our region, we’ll develop a technical community who have strong engagement with industry partners, enabling knowledge transfer and utilising collective technical skills to drive innovation. We’ll drive a culture which promotes equality, diversity and inclusion, where technicians are recognised on research outputs, can contribute or lead research grants, be consulted and costed appropriately on projects, and are present at decision making committees as business as usual.

Theme Three provides career development for technicians through tailored technical training which includes work placements, soft skills training, peer to peer knowledge cafes and the continuation of the UK’s largest conference for HE technicians, HETS.

Our aim is to build a technical community who work collaboratively to address training needs and can access bespoke training tailored to technical working environments.
TALENT will employ a commission approach to investigate the HE sector’s future need for technical talent.

The TALENT Policy Commission will be led by an independent Chair, Professor Sir John Holman, and a team of senior commissioners. Evidence gathering sessions will collect input from: technicians; academics; university management; research funders; technology experts; students; business; and policy makers amongst others. The commission will provide a report and a series of recommendations to universities, research funders and government on the future need for technical talent in the sector.

The scope of the commission will include the sector’s future need for technical talent (numbers and skillsets); workforce demographics; gap analysis; analysis of changing technologies technicians use (e.g. to support laboratory teaching, increasing digitisation of research); government policy implications; and the impact of the increasing focus on collaboration (business, across universities, multidisciplinary research).

TALENT will disseminate the findings through an open access report, events, speaker slots and meetings, ensuring wide dissemination with a focus on universities, policy makers and research funders. The commission process will also act as a significant engagement activity focussing stakeholders’ minds on the role, importance and future need for technicians. An engagement programme will run alongside and after the commission to ensure findings are well understood.

"I am honoured to be appointed Chair of the TALENT Policy Commission. This is an exceptional time for Higher Education, and indeed for the UK as a whole. The Covid-19 crisis has highlighted the importance of academic research for making and implementing policy, and the critical role of technicians in both research and teaching. Now more than ever, we need to understand the technician workforce in Higher Education, so we can better support them and enable technicians to give their best. I salute Midlands Innovation for taking this imaginative initiative, and I salute Research England for supporting it. I am looking forward to getting down to work with some of the leading experts in the country."

Professor Sir John Holman
Technicians as Partners is made up of five projects to understand existing culture and then raise profile, opportunity, participation and representation of technical staff. This theme will provide an opportunity for technical staff to develop their careers and take a wider role within and beyond their institutions.

1 Research Culture: A Technician Lens: This project will investigate research culture from a technician perspective, advocate the technicians’ role in research and challenge existing boundaries in collaboration with Wellcome. We will explore the inclusion of technicians as principal and co-investigators on research grants; defining specialist technical career pathways, equipping technicians to support multi- or inter-disciplinary research; the role of technicians in teaching; appropriate costing of technical staff and training into research proposals and appropriate recognition of technicians on research outputs, aligned with a Team Science approach.

2 Equality, Diversity and Inclusion (EDI): A Technician Lens: The shortage of technicians nationally requires innovative approaches to diversify the workforce. We were part of a collaboration publishing a national report on EDI in the UK technical community. The report identified EDI challenges for the technical workforce including an alarmingly low number of BME technicians, significant gender differences in technicians in differing subject disciplines and the low number of female technicians at higher levels of technical management or specialism. We will work with MI partners to understand local EDI challenges for technicians at each institution. We will work with HR and EDI champions across MI to design, implement and test interventions to address the local challenges. Interventions will be evaluated and findings disseminated nationally.

3 Developing the Technical Voice: This project will explore current technical representation on executive committees within universities and the likely impact of better representation. We will explore the training and experiences technicians need to enable them to succeed in such roles.

What does this mean for the Midlands Innovation technical community?
We want to ensure better representation of technical staff in the decision making processes at MI institutions so their input can be made at all levels.

4 Technician Led Equipment Sharing: Technicians are key to effective equipment sharing, managing, teaching and advancing methodology. We will build on examples of best practice led by technical staff driving the equipment sharing agenda so they can support access to the best facilities for research regardless of institution.

What does this mean for the Midlands Innovation technical community?
We will run equipment showcases at each MI institution where technical staff can demonstrate their capabilities and provide a dedicated fund for equipment sharing across MI.

5 Technician Led Industry Collaboration: Knowledge Exchange (KE): Routes to establishing university/industry partnerships are typically based on academic expertise. Technical expertise is also valuable to industry but is significantly underutilised. We will explore opportunities for technical KE and collaboration and liaise with business to create new partnerships, collaborations and opportunities for technician-led KE.

What does this mean for the Midlands Innovation technical community?
More direct engagement with key stakeholders in industry to build networks and opportunities.
We will deliver activities to support the career development of technical staff. This theme will take the recommendations from the commission and work alongside the culture change projects to implement a programme of technical placements, soft skills training, networking, technician-led training, promotion/dissemination of training opportunities and the continuation of HETS in 2021 and 2023. This will result in training developed specifically for technical colleagues. We will work with staff development colleagues across MI and project partners to support technical career development. The Technical Training and Empowerment theme consists of the following interlinked activities, supported by three dedicated technical trainers, a technical careers advisor and existing staff development expertise across MI:

1. **Soft Skills Tailored Training for Technicians**: We will employ technical training managers to analyse existing staff development programmes. They will modify existing programmes to address the needs of technical staff and develop new content and courses designed specifically for technical roles.

2. **Technical Placements**: We are expanding the MI technical placement scheme and engaging with industry partners. This will strengthen the regional network of technical colleagues both within and beyond academia. It will enable us to explore the roles of technicians in knowledge transfer and utilise collective technical skills and innovation.

3. **Technician Led Training Fund**: This fund will enable collaborative groups of technicians to bid for training, run on a competitive basis. This is designed to support technical staff development.

   **What can be funded?**
   Bids can be for technical training or soft skills such as writing proposals and business cases. The training can be delivered by external providers, technical staff or the dedicated TALENT trainers.

4. **Technical Conference & Skills Fund**: We are creating a new MI Technical Conference & Skills Fund to ensure technical colleagues can competitively apply to attend appropriate conferences and courses to develop their technical skills, disseminate their own activities and develop networks in their area of expertise.

   **What does this mean for the Midlands Innovation technical community?**
   Access to a conference fund dedicated to technical staff with an investment of £160,000 from the MI universities.

5. **Peer-to-Peer Learning for Technicians**: To build peer networks, identify common training needs, enable knowledge and equipment sharing and stimulate collaboration a fund is available for hosting ‘Technical Knowledge Cafes’. These will receive investment of £5k per year (over a 4 year duration) to deliver events and training across a range of areas.

6. **UK Higher Education Technician Summit (HETS)**: HETS offers networking and training activities beyond the MI partnership and provides a unique opportunity for TALENT to consult and disseminate beyond its eight partners. HETS will be delivered as a co-investment from Midlands Innovation and event sponsors and will take place in 2021 and 2023.

   **History of HETS**
   The first HETS took place in Nottingham in 2015, launching the Papin Prizes. Since then, HETS has grown with every iteration, launching the Technician Commitment in 2017 at Warwick and with over 700 delegates attending in Birmingham in 2019. HETS 2021 will take place on June 23rd 2021 at the East Midlands Conference Centre, Nottingham.
PROJECT PARTNERS

TALENT will lead and influence change to advance status and opportunity for technical skills, roles and careers in UK HE. This will be delivered through the Midlands Innovation consortium of eight universities in collaboration with key stakeholder and industry partners including the Science Council, Technician Commitment, Wellcome, British Geological Survey, Manufacturing Technology Centre, Rolls Royce Plc, Unilever, Thales Alenia Space, Cobra Biologics and Midlands Engine.
TALENT will empower employers to take a strategic approach towards their future needs for technical talent and the technical community to take a leadership role in the development of their training. We will fill knowledge gaps in relation to the technical workforce in higher education and the sector’s future requirements. TALENT will work to deliver culture change to match the increasingly multidisciplinary and sector-crossing direction of research and knowledge transfer.

TALENT will result in three overarching pieces of work, freely available to the sector: A national ‘Technical Talent of the Future’ commission report; a ‘TALENT: Technicians as Partners’ Portfolio and a ‘TALENT Technical Training’ Package.

TALENT has been designed to ensure that there will be substantive benefit beyond the partnership. Beneficiaries include the wider university sector, research funders and industry partners. The HE sector will benefit from access to the portfolios consisting of lessons learnt and best-practice case studies and an increased understanding of technical roles. Research funders will benefit from new understanding of the roles and contributions technicians make to the research they fund. TALENT provides societal benefit of accelerating high impact challenge-based research through the improvement of the technical skills base, both regionally and nationally ensuring that the UK is more competitive globally.

REFERENCES

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4. https://wellcome.ac.uk/what-we-do/our-work/research-culture
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