For many people embarking on a career in scientific research, the prospect of going back to university can seem daunting. To advance further in their careers, it may be advantageous for these individuals to further broaden their knowledge and skills in academia by taking on a PhD. Yet with existing constraints in both time and funding, this can seem unattainable—especially for people from more diverse backgrounds. For someone already established in a job in industry, the prospect of taking a career break and giving up their salary to go back to university is simply not an option, and the dream of a PhD ends there.

Fortunately, universities and industries alike have now begun to recognise these barriers, and are exploring ways in which they can be addressed. Through new collaborations, these institutions are increasingly offering funding programmes which allow researchers who have already started their careers to take on university courses, without stepping away from their current jobs. As this academic landscape shifts, the boundaries between university courses and industry careers are no longer as rigid as they once were.

Introducing: the EPSRC programme

The University of York is at the forefront of an exciting new movement of UK universities to collaborate with research industries in this way. Along with three other institutions, the University of York has been selected by the UK government’s Engineering and Physical Sciences Research Council (EPSRC) to pilot a new route into academia for researchers already working in industry. Compared with more traditional approaches to university enrolment, the EPSRC doctoral training programme (DTP) offers far more flexibility for candidates hoping to take on a PhD—helping them to trial innovative new ways of partnering with industry.

Among the most important aims of the EPSRC programme is to remove the restrictive barriers placed most heavily on individuals from more diverse backgrounds. In helping as broad a range of candidates as possible to achieve their full potential, the goal is to build a stronger, more robust, and more competitive landscape of scientific research in the UK.

The EPSRC programme is built on the core principles of equity, diversity, and inclusion, which are widely used by workforces and universities to ensure fair treatment and opportunities for everyone. These principles aim to eradicate prejudice and discrimination by ensuring that individuals are never treated more or less favourably based on their backgrounds; by respecting and celebrating their differences; and creating environments where everyone can feel welcome and valued.

Identifying barriers

To achieve these goals, it has been particularly crucial for the University of York to identify the barriers which currently exist for researchers thinking about going back to university. In particular, the university’s Departments of Chemistry and Biology have considered the needs of those thinking about taking on a PhD, but have already started their
The doctoral training programme (DTP) aims to increase mobility across the business and academic sectors. Working closely with industry partners, the University of York’s EPSRC Mobility DTP in Leadership and Excellence in Circular, Resource-efficient, Sustainable Manufacturing. This partnership is particularly well suited for employees preparing for leadership roles – where the ability to work across both business and research sectors is a highly valued skill.

These high-quality, fully funded postgraduate research opportunities lead to a PhD qualification. With the support and funding offered by the Mobility DTP, participants can go back to university to complete a PhD without leaving their current jobs: not only enabling them to advance their careers, but also allowing companies to retain their valued staff, while nurturing their professional development.

Guided candidate selection
One of the new measures in place, the University of York ultimately hopes that this new route into academia will achieve the overall goal of widening and diversifying the pool of talent undertaking advanced-level research, therefore ultimately boosting the UK’s overall strength and robustness in research and development.

New opportunities for support
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There is still time to apply for the DTP. As of April 2023, the University of York is welcoming enquiries for the few remaining places on the EPSRC programme.

The programme can assess the potential of candidates based on their professional track record, rather than their academic background alone.

What challenges are faced disproportionately by researchers from more diverse backgrounds thinking about taking on a PhD?
Among the challenges for researchers in industry, particularly those from diverse backgrounds, is that they may never have considered a PhD as a realistic option for them. Perhaps they didn’t achieve the grades in their first degree typically needed for PhD entry or perhaps they simply wanted to start earning a salary. For these reasons, and many more, advanced-level academic research may not be something they’d considered until they were more established in their careers. Having acquired good skills and experience through work, they may now have become better prepared for embarking on a PhD than they realise. At this point in their career, though, taking a career break, giving up a salary or losing contact with professional networks would all be unappealing. Taking into account other personal circumstances including family, caring responsibilities, financial commitments, etc, giving up a job to do a PhD could prove highly disruptive. All these considerations impact different individuals to varying extent, and are often exacerbated for candidates from backgrounds that are under-represented in STEM, but they all represent barriers that could prevent talented candidates from accessing opportunities to grow their expertise and advance their careers.

How did the University of York embark on this pilot project initially?
The university responded to a call for proposals from EPSRC. Designed in partnership with representatives from several industry partners ranging from large multi-nationals to local SMEs, the university aimed to create a programme offering more pathways into advanced level STEM research where, within a flexible and supportive academic environment, candidates would be able to undertake innovative research projects tackling industry problems with their eventual research outputs having real-world impact. The DTP opened for applications in 2020 and admitted its first cohort in 2021.

What qualities does the University of York look for in candidates for the EPSRC programme?
Candidates for the DTP will ideally currently be, or recently have been, employed in a research or research-adjacent role in industry. They’re not required to have a 2:1 in their first degree in order to be considered for the programme. Candidates with equivalent professional experience are strongly encouraged to apply as are candidates from backgrounds which are under-represented in STEM. This programme is especially suited to candidates for whom the ability to work across business and academic sectors would be desirable.

Can employers get involved with the programme, if so how?
Yes. We welcome approaches from employers who wish to put a candidate forward as an applicant to the DTP. Additionally, there are opportunities to participate in our steering group which is made up of stakeholders from a range on industry partners and professional bodies that help to advise our DTP Management Team. We’re also interested in hearing from employers with feedback on the DTP as well as expressions of interest in partnering with us in future.

EPSRC Mobility DTP