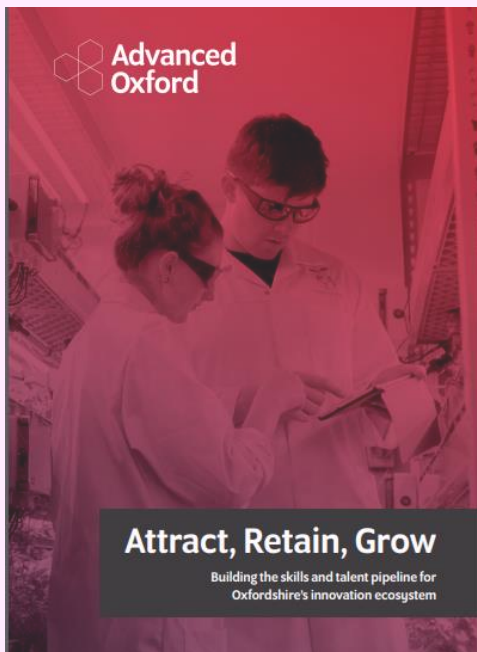# Attract, Retain, Grow - *building the skills and talent pipeline for Oxfordshire's innovation ecosystem -* Executive Summary

Access to skills and talent - the acquisition and retention of people - is one of the key drivers of growth and success for any organisation. This issue is a high priority for all members of Advanced Oxford.

This report, its findings and conclusions are based on research undertaken between May and October, 2021. Advanced Oxford has used a mix of quantitative and qualitative techniques to collect, analyse and present data on the Oxfordshire innovation-based labour market. Qualitative research draws on the experience of knowledge-based/innovation-based businesses across a range of sectors, company size and age, including businesses outside Advanced Oxford's membership.

Companies were questioned on several issues, focusing on the following themes:

- Hard to fill roles/higher level STEM scientific and technical skills.
- Entry routes to careers, including the role of apprenticeships within the local innovation labour market.
- An examination of the impacts of Brexit on the attraction and retention of talent.
- A forward look to 5 years hence, asking companies to anticipate changing or new areas of skills requirements.

This has been supplemented by quantitative data collection and analysis across the Oxfordshire innovation economy, drawing on data from advertised STEM based roles, using two time points – June 2018 and June 2021.

The report presents findings from the research, a number of case studies, recommendations for action and a resources section, the latter is also available through Advanced Oxford's website https://www.advancedoxford.com/project/skills-support-oxfordshire/

Key findings

Companies participating in the research are growing and as a result there is an increasing demand for skills and talent. Areas where companies find it hard to fill vacancies tend to be in engineering, data science, computer science and other scientific disciplines.

Despite the race for talent, the use of apprenticeships within knowledge-based companies is low, particularly within smaller and younger businesses. There are two main reasons why companies do not use apprenticeship training routes, these being perceived lack of organisational capacity and poor knowledge of apprenticeship training routes or understanding of how to get started. However, there are examples of successful initiatives to drive the development, exploration and uptake of apprenticeships, and the Advanced Therapies Apprenticeship Community has been particularly successful in this regard. There is good usage of internships as a means of engaging early-stage talent, but work placement offers are less common and often informally organised. Apprenticeship training, internships and work placement opportunities have all suffered as a result of the Covid pandemic.

Brexit has resulted in diminished interest and fewer applications from EU national candidates residing outside the UK, which has caused difficulties for some companies. Although businesses recruit from across the whole of the UK, facilitated in the last two years by increased opportunities for remote working, there can still be difficulties in sourcing appropriately skilled and qualified candidates from the UK labour market. For those recruiting outside the UK, the time and cost for acquiring new hires has increased. Nevertheless, many businesses find it difficult to disassociate the impacts of Brexit from those of the pandemic.

Looking forward to 5 years' time, businesses anticipate the need for the same kinds of talent, but also anticipate increased need for commercial, engineering, computer science and data science roles.

From a sample of 188 companies, 60% were advertising at least one role in May/June 2021, using their own channels (website, LinkedIn, Twitter etc.). However, 29% of these businesses present no information about career or job opportunities on their company websites. Where knowledge-based enterprises have the opportunity to advertise roles through other, free-to-use job portals, typically offered by science campuses or parks, these are not always used.

STEM-related roles, as a percentage of all jobs advertised, increased across all of Oxfordshire's five local authority areas between 2018 and 2021, based on data drawn from advertised roles at the end of June in each of these years. The most commonly advertised roles were for ICT, engineering, project management, technician, scientist and research associate vacancies. The research looked at the most sought after transferable, professional and technical roles in STEM-based vacancies within Oxfordshire's innovation ecosystem. There is high demand for transferable skills including communications, project management and management and the top technology related skills are dominated by programming/coding skills in Java, C++, JavaScript and Python.

The full report - ***Attract, Retain, Grow – building the skills and talent pipeline for Oxfordshire's innovation ecosystem*** – can be found on Advanced Oxford's website, https://www.advancedoxford.com/project/skills-and-talent/

Summary of recommendations and areas for action

The report contains nine recommendations, drawing on the research findings. These recommendations will be the focus for engagement with stakeholders to agree actions. Stakeholders include local skills and education providers, including schools, further and higher education; businesses; skills policy makers and Oxfordshire Local Enterprise Partnership.

Create resources to inform **school-based careers services about the local labour market**, job opportunities, areas of demand and how potential routes of study can lead to fulfilling and rewarding roles within the innovation economy.
Increase the number of **work placement opportunities** available within the region for young people to explore STEM education, skills, and career opportunities.
Work is required to overcome barriers to the **adoption and use of apprenticeships** as a route for developing skills and talent.
Explore the **Advanced Therapies Apprenticeship Community** (ATAC) model within the region in other sectors.
Help students and graduates understand the **opportunities that exist within the local innovation-based labour market**, including our those studying in Oxfordshire's business schools.
Develop short courses and skills development offers around **commercial skills**, particularly targeting science and technology specialists.
Promote the **Knowledge Transfer Partnerships** (KTPs) scheme locally.
Businesses should use their **company websites** to provide information about careers and job opportunities and be supported to understand the importance of their digital presence.
The **OxLEP Connecting Global** platform must be marketed to companies in an effort to onboard them and encourage usage. It is recommended that the platform is not provided on commercial terms.

About Advanced Oxford

Advanced Oxford is a not-for-profit membership organisation with members drawn from R&D based/innovative companies working across Oxfordshire. Our membership includes companies, Oxford's two universities, the NHS through Oxford Academic Health Science Network and providers of innovation infrastructure and support.

Advanced Oxford is research-led, providing analysis and a united voice for our members on the key issues affecting the development of the innovation ecosystem in the Oxford region. We generate our own research and work to support and inform key stakeholders involved in the development of the business environment, infrastructure and policy. Advanced Oxford is working to support the long-term development and success of the Oxford region as a place to live and work. We do this by drawing on our collective experience of setting up, running or working in knowledge-based, innovation-focused businesses and organisations. We use our connections to other businesses to generate evidence and undertake research.