

Future Jobs Scotland

Contents

Meeting the challenge: now and into the future	3
Responding to today's challenges	5
Action that the Scottish and UK Governments can take	13
Redesigning for the future	16
This is not a conclusion	19

Meeting the challenge: now and into the future

Labour markets in Scotland, the UK and globally are undergoing significant change. Rapid advances in Artificial Intelligence (AI), a challenging economic environment and long-term demographic shifts are reshaping the skills employers need and the opportunities available to those entering the workforce.

This is happening in real time whilst the UK and Scottish Governments are developing their own approaches to skills needs. In Scotland, a national skills plan is under development, and the recent Tertiary Education and Training (Scotland) Act is intended to simplify the skills landscape and funding in Scotland. Meanwhile the UK Government's Industrial Strategy aims to align the post-16 skills system and the needs of employers to eight high-growth sectors.

Universities need to be responsive to these changes and this demands action on two fronts:

Responding to today's challenges

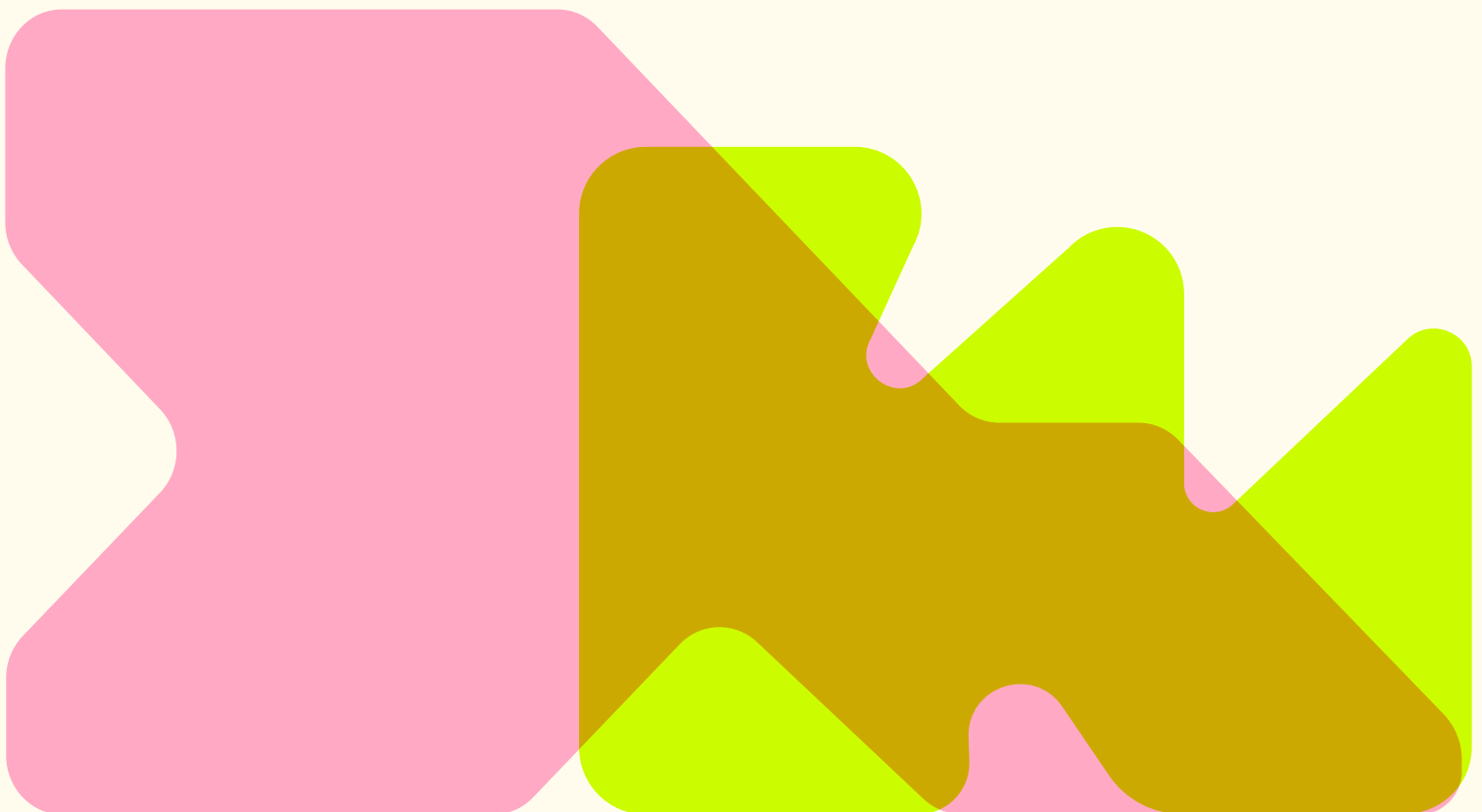
As universities we need to respond to today's challenges by ensuring graduates are equipped with the skills employers need now and over the coming years. This report reflects the initial engagement we have undertaken with employers in Scotland as part of the [Future Framework](#) and a wider **Future Jobs** listening exercise led by Universities UK across the UK. Clear themes have emerged around the skills, attributes and experiences employers value. There is a lot of good practice underway and we'll continue to build on this, roll out new approaches and seek to work in partnership with Government, in pursuit of the policies and action that will support this. In doing this, we'll be mindful of relevant Scottish and UK Government strategies on economic growth and skills.

Redesigning for the future

In parallel, we must take a longer-term view and design a university system capable of meeting the needs of learners, employers and the economy through to 2045 and beyond. This is happening in the form of the [Future Framework](#), our joint

programme with the Scottish Government. The [Future Framework](#) takes a longer-term perspective on how Scotland's universities can remain resilient, relevant and financially sustainable through to 2045. This work recognises there are multiple drivers for change and the needs and expectations of learners, employers and the economy will shift significantly over the next two decades, and that universities must evolve alongside them. Employers are key to the governance of this project and their views on how change will affect their workforce needs will be key to our long-term thinking.

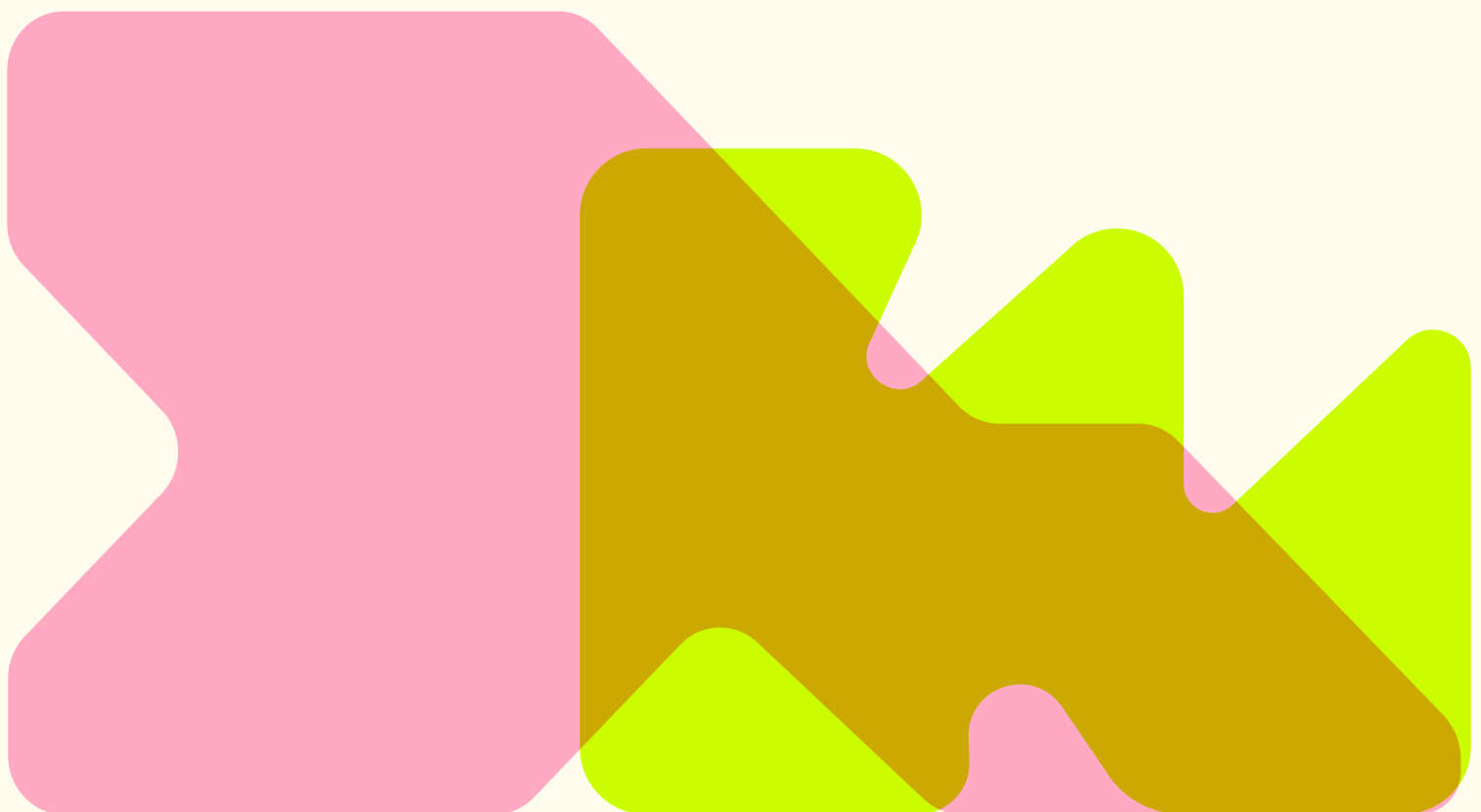
Throughout 2026, we will continue engaging with employers, industry sectors, staff, learners and graduates. Their insight, combined with robust evidence and trend analysis, will help shape further proposals through the [Future Framework](#) process and ensure Scotland's universities are well positioned to support future talent, productivity and economic growth.



Responding to today's challenges

In the first phase of engagement in 2026, there are already some strong emerging themes.

Employers have been clear through the Universities UK listening exercise that our universities deliver graduates with strong high-level skills that remain critical to meeting future workforce needs. However, there is a shared view that universities must evolve to meet current and future challenges, working in stronger partnership with employers to translate graduates' strengths into consistent, work-ready outcomes in a rapidly evolving labour market. There is good practice happening.



1: Strong demand for work readiness.

We found that employers were overwhelmingly positive about the growth and demand for the unique set of skills graduates bring to the workplace, but there is an appetite for more emphasis on work readiness.

A recent survey of employers in Scotland found 85% of respondents said university leavers were 'well' or 'very well' prepared for work. But through our listening exercise, employers of all sizes also told us...

- they wanted graduates to have relevant practical experience of the workplace in addition to subject specialism and meta skills to support their transition from education to the workplace.
- that the work readiness challenge is constraining business productivity. The Institute of Student Employers found that in the last year over half of employers (52%) had increased the induction time dedicated to 'professional conduct' and supporting the transition from education to the workplace.
- new graduates can sometimes struggle to communicate their strengths and clearly convey how their skills can add value to the workplace.
- they saw Graduate Apprenticeships and work experience placements as successful models, and there was strong interest for universities to work with employers and expand work-related and work-based learning activities for all students.
- most employers wanted commercial awareness from new hires and an understanding of the business model of the sector they are entering into in graduates.

"Feedback from our members indicates they highly value the unique contribution graduates make to the workforce, with ongoing demand for STEM specialisms. They also feel there are opportunities to strengthen direct engagement between employers and higher education providers, with a greater focus on developing graduates' readiness for the world of work."

Moira Stalker, Skills Manager, Food and Drink Federation Scotland

Supporting transitions into employment

We want to do more to prepare our graduates for work. Graduate Apprenticeships and placements are two models but there are many other approaches to support graduate career readiness by embedding employability throughout the student experience. This includes integrating transferable skills into curricula across all degrees, working closely with employers and professional bodies, offering placements, internships and work-based learning opportunities. Work-based and work-related learning can be adapted to allow all students across all academic disciplines to apply academic knowledge in real-world settings.

Universities also provide high-quality careers provision right from the start of a degree and most continue to provide support for at least two years after graduation. Some also offer lifetime careers support in recognition of increasingly diverse and non-linear pathways and the need to access guidance and navigate career transitions throughout working life.

Existing good practice

University of St Andrews' Your Future, Start Now is a first-year undergraduate employability programme designed to build confidence, develop transferable skills and provide an early understanding of the world of work. The programme forms part of a structured approach to supporting employability from the outset of the student journey, evolving annually in response to employer feedback on graduate work readiness. Skills students have developed align with those identified by the Institute of Student Employers (ISE) Student Development Survey as priorities: communication, resilience, digital capability, adaptability and entrepreneurial thinking. Students can also undertake micro-internships with local organisations, applying learning in real workplace settings whilst creating an accessible pathway for small and medium-sized enterprises (SMEs) to engage with the University.

Queen Margaret University's (QMU) THRIVE initiative, delivered in partnership with Scotland's Rural College (SRUC), combines academic expertise with real-world insight, demonstrating QMU's strong commitment to collaboration with other universities and industry. The programme is delivered through a series of workshops and industry-led webinars, and also equips graduates to adapt to technological and industry change, exploring areas such as sustainable marketing, packaging innovation, and evolving regulations while building resilience and forward-thinking skills. Collaboration brings together QMU, SRUC, and industry experts to drive connections and knowledge sharing, helping THRIVE develop highly employable graduates ready to innovate and succeed in the food and drink sector.

ABDN Internships is a structured, paid internship programme designed to enhance student work readiness through flexible, accessible work experience. It is open to all University of Aberdeen students across disciplines and levels of study during term time and in summer, ensuring inclusivity of other commitments. These experiences develop key employability skills, like teamwork, communication, problem-solving, and professional behaviours, while providing exposure to workplace expectations. The programme is designed to help remove barriers to work experience through paid roles and flexible formats, with 100% of interns recommending the programme. This model has embedded meaningful, supported work experience into the student journey to improve graduate outcomes and employer confidence.

2: The pace of change is significant and future direction is unpredictable.

Today's graduates will go into jobs and industries that do not yet exist and work in ways that will continue to evolve throughout their careers. Advances in AI are already transforming the labour market, and employers expect it to do so with greater force in the years ahead. A recent PwC report found that AI is creating a two-track labour market in which skills such as judgement and leadership are becoming ever more critical for employers.

Employers consistently told us...

- they were operating in an environment of rapid change with uncertainty about future workforce needs, but see graduates as critical to their future success.
- AI is reshaping rather than replacing graduate roles.
- whilst employers are uncertain about the nature of AI-related opportunities they are clear that they need a workforce with high-level skills to help drive and implement the change.
- they increasingly see the need for training and development of sector-specific technical skills to reoccur every 3-5 years as innovation and the technologies shift fundamentally making existing skills obsolete.
- in this context, employers will depend upon a workforce with meta skills such as communication and curiosity, relational and translational skills, the ability to see and articulate risk. Above all, an intrinsic motivation to learn throughout life will be important.
- with regard to careers advice, the emphasis should be on matching graduate skills to employer need rather than solely trying to align traditional degree subjects to traditional jobs (a law degree to the law profession).

- they also recognise that the unique nature of research-informed teaching at universities positions graduates at the forefront of new technologies and knowledge, and that they can bring this expertise into the labour market.

Supporting students

Universities have an important role in preparing graduates to use AI effectively, responsibly and critically. As AI becomes increasingly embedded across workplaces, the ability to use and evaluate AI tools is an important career and professional skill.

Universities are helping students to understand the opportunities and limitations of AI, to build confidence in using AI tools to support learning and work, and to develop the judgement needed to evaluate AI-generated outputs. This might include AI literacy and responsible use workshops, use of discipline-specific AI applications, activities that encourage critical evaluation of AI-generated content and careers education on using AI for job searching, interview preparation and career planning.

Universities are also helping industry and government anticipate how AI and technical changes will continue to impact the workforce, helping them to identify and plan for future skills needs in areas such as AI, advanced technologies and the energy transition.

It is reasonable to expect the growth and emergence of some industry sectors and the decline of others. With major consequences for jobs in certain sectors, it becomes more important for degree study, careers advice and recruitment needs to increasingly shift to a skills-focus rather than an industry focus which will enable people to make career pivots, as needed, and reduce the risk of people finding themselves “stuck” in declining industries. A skills-based approach opens up transferability and wider opportunities for both the employee and the employer. From a university perspective, it’s about transparency and guidance from the outset of a degree about the various pathways a degree can take you. Careers advice must help learners to recognise and articulate their skills and employers must be prepared to reward different pipelines of talent.

"AI is redefining how work is organised, how value is created and the skills that employers need from their people at a pace we have rarely seen before. The challenge is to adapt quickly enough. The future will belong to those who can combine technological fluency with critical thinking, creativity, judgement and an ability to keep learning throughout their careers."

Sandy Begbie, Chief Executive, Scottish Financial Enterprise

Existing good practice

Rather than treating artificial intelligence as a standalone subject, **Abertay University is embedding AI throughout the curriculum for all disciplines** enabling students to develop the skills and understanding needed to apply the technology responsibly. Students explore both the opportunities and challenges presented by AI through learning experiences tailored to their subject area. Computing students use AI to support problem-solving and explore unfamiliar technologies, while Ethical Hacking students critically evaluate AI-generated code, identifying vulnerabilities and limitations. Creative disciplines explore AI's impact on artistic practice and employability, while Law students examine the implications of AI for ethics, accountability and professional standards. This approach aims to equip graduates with the technical, ethical and professional skills needed to thrive in an increasingly AI-enabled workplace.

Using Generative Artificial Intelligence (GenAI) for career progression – an Open University programme set up by their careers team to address the issue of GenAI in job applications. The programme currently includes regular live practical workshops, a recorded on-demand video, a 'How to use Generative AI for your career' resource and the accompanying blog 'Get hired, get inspired with GenAI'. The team is also aware of student concerns regarding environmental sustainability and promote prudent usage in accordance with the OU's 'Responsible AI Policy'. They aim to ensure that students harness the power of GenAI to support their career progression in a responsible, critical and productive way.

Queen Margaret University and the Edinburgh Innovation Hub is a flagship collaboration with East Lothian Council to develop a nationally significant centre for innovation-led enterprise. The Hub is designed to connect businesses with QMU, fostering an entrepreneurial culture while expanding opportunities for industry-relevant research, knowledge exchange, and student placements. The partnership aims to support business innovation and skills development, with clear potential to enhance graduate employability. Engagement with SMEs and start-ups will provide exposure to live industry challenges, supporting the development of practical skills, commercial awareness, and professional confidence. The Hub's integrated approach will equip graduates with digital skills and industry insight needed to succeed in technologically advanced workplaces and contribute to sustainable economic growth.

3: Employer-university partnerships have solid foundations but can be further leveraged

Employers see closer partnerships with universities as critical to their success. The listening exercises uncovered the breadth of partnership-working, ranging from co-designing curricula to offering work placements to shared facilities and consultancy services.

The extent to which universities and their staff are permeable with the industry/ industries to which they deliver was thought to be key to successful connectivity. Strong partnerships existed where academic staff have recently been, or still are, active practitioners in public or private sectors.

We also heard from employers that there are opportunities to enhance engagement with SMEs. Some SMEs noted that more streamlined access and clearer pathways for engagement could support the development of even stronger and more enduring partnerships.

"Strong partnerships between higher education institutions and community organisations demonstrate how practical experience can complement academic study, helping students develop the confidence, professional skills and understanding that will benefit them throughout their careers."

Elizabeth Murphy, Communications Lead, COVEY

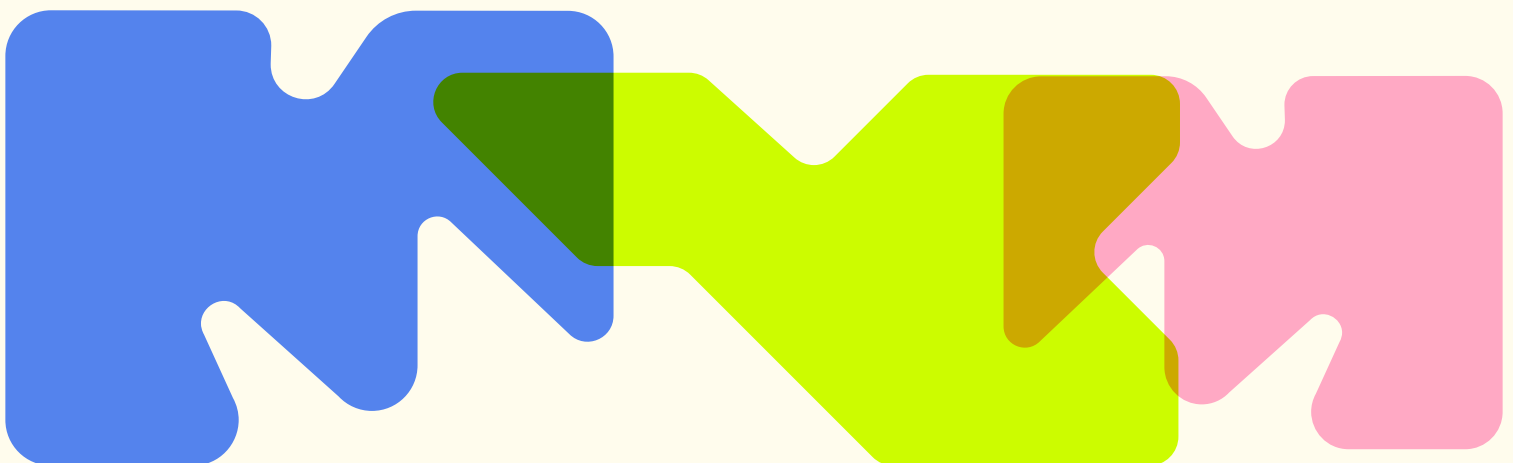
Existing good practice

Robert Gordon University (RGU)'s journey to becoming the UK's leading Work-Integrated University by 2030, ensuring learning is closely connected to the professions, industries and communities graduates will serve. Building on a strong base as one of Scotland's largest providers of Graduate Apprenticeships and with 81% of courses already offering placement opportunities, the University is working to innovate and extend the range of work-integrated activity. This work is already reflecting strong graduate outcomes. In the Complete University Guide 2027, RGU ranked 1st in Scotland and 5th in the UK for Graduate Prospects – On Track.

As part of their final year studies on the BA Modern Ballet programme at the Royal Conservatoire of Scotland, students participate in 'company class' with Scottish Ballet at their HQ at Tramway, in Glasgow. This experience gives students

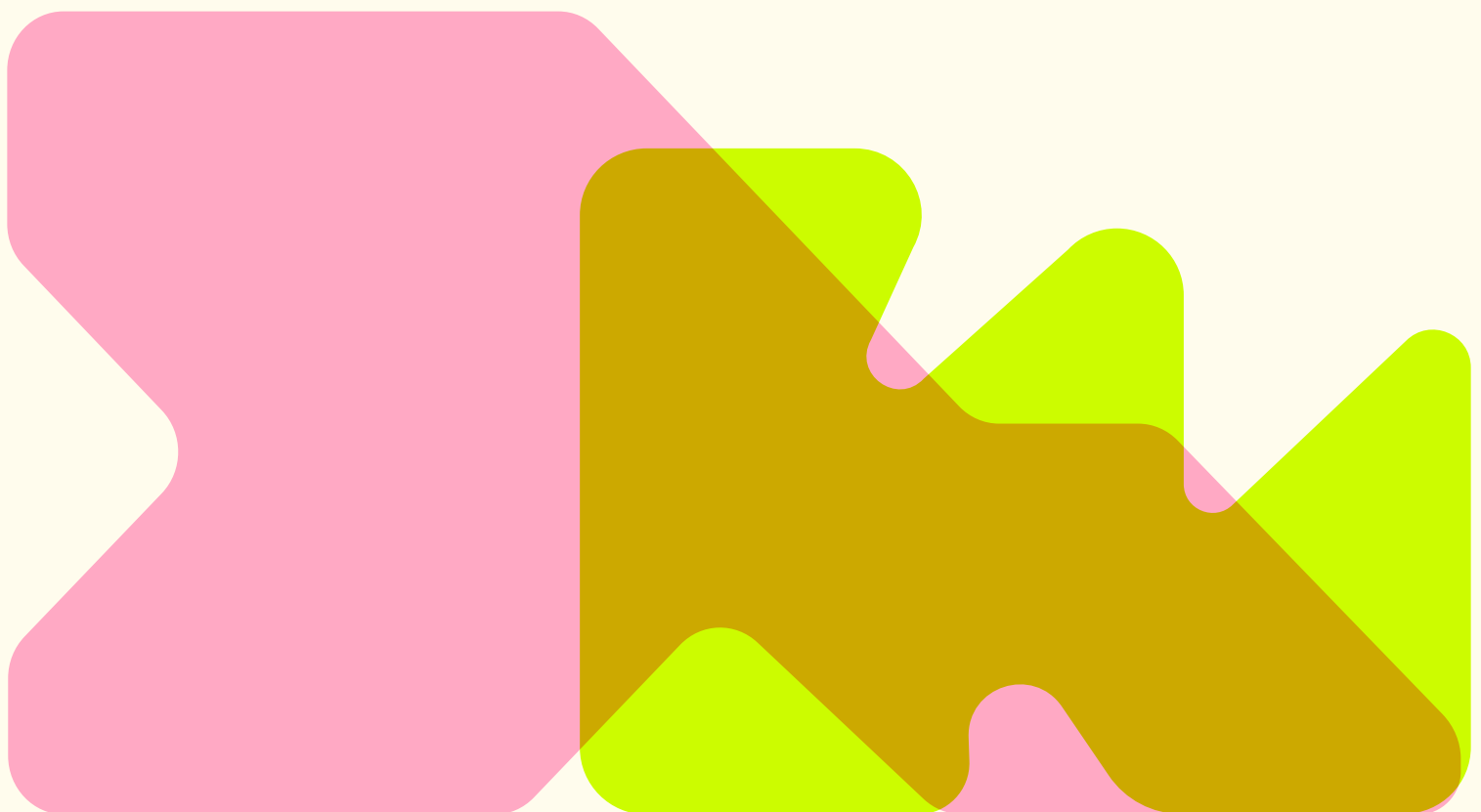
the opportunity to learn alongside professional dancers, providing invaluable experience of the workplace. They develop technical and performance skills, receive feedback from Scottish Ballet artistic staff and learn alongside world-class dancers. When applying for employment upon graduation, the audition process typically comprises dancers joining company class, giving RCS students a unique advantage. Additionally, final year students join Scottish Ballet as artists for their national winter tour, participating in the full run of around 60 performances.

Strathclyde Business School, in partnership with the Careers and Employability Service, identified a gap between employers who wished to engage with students and academics, and developed a process to bring these two groups together. Business School staff now distribute an annual survey to highlight opportunities to engage in the curriculum. These opportunities are then collated for employers and alumni interested in building partnerships, accessing student talent or giving back to the university, including a dedicated section for opportunities particularly suited to SMEs. This is disseminated to all staff with an employer-facing remit, allowing for a joined-up approach and creating clear paths of communication between industry and academic opportunities.



Action that the Scottish and UK Governments can take

There is significant progress that universities and employers can make by working together to improve graduate employability. However, there is a limit to what can be achieved by universities and employers alone, particularly given economic headwinds and government policy. There are actions that both Governments can take to achieve shared objectives.



A. Decrease costs for hiring entry-level graduates and more transparency on the Skills Levy.

Employers consistently voiced concerns over the cost of hiring entry-level graduates, particularly citing the increase to National Insurance employer contributions and reduction in the threshold from the Autumn Budget 2024.

Across the UK, employers suggest a relief on National Insurance employer contributions would turn the dial on graduate recruitment – 65% of employers indicated that financial support to offset the cost of hiring entry-level graduates would make them more likely to recruit graduates.

We would like to see the UK Government's Autumn Budget implement policies that address the cost of hiring entry-level graduates and support young people who are not in education, employment, or training (NEETs). One such proposal is the relief of Class 1 National Insurance for employers of employees who are under 21 to be extended to all young people (under 25). This means employers will not pay National Insurance so long as their employee earnings are below the Upper Secondary Threshold of £50,270.

We would also welcome more transparency from the Scottish and UK Governments on the Skills Levy. Employers struggle to see where their contributions are being spent in Scotland and more openness about the quantum and how the money is distributed into the skills system would help improve the relationship with businesses as they invest in their workforce.

B. Ensure universities are at the table at strategic skills conversations.

Universities are core providers of skills. The Scottish economy requires skills at all levels, and the binary perception of academic vs vocational does not truly reflect the delivery of skills education in universities. James Withers's review from 2023 first made an important call-to-action to address this. Our economy and industries are reliant on a skills matrix, from apprenticeships of all levels, to undergraduate degrees and postgraduate qualifications.

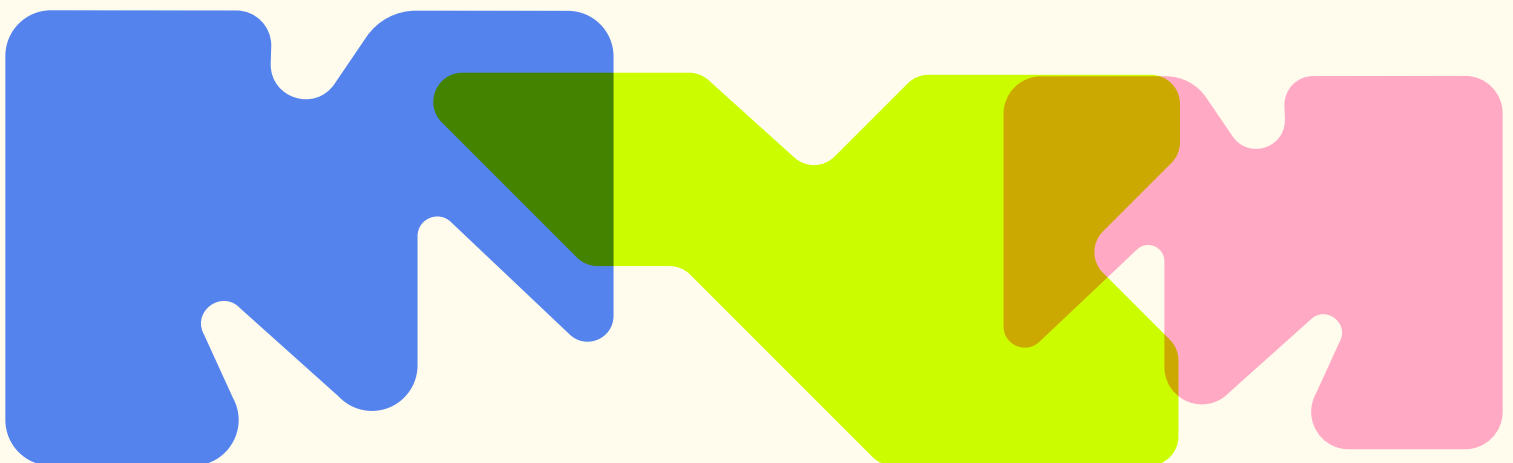
Not enough action has been taken to address this persistent dichotomy and we would welcome clear recognition from the Scottish and UK Governments that universities are one of the core providers of skills education alongside colleges and training

providers. The development of Scotland's national skills strategy needs to be as informed by universities, as any other post-16 delivery partner, just as all post-16 study and training routes need to be supported.

C. Streamline the framework process for the development of new Graduate Apprenticeships so universities can use that route to respond with agility to emerging workforce needs.

The Tertiary Education and Training (Scotland) Act transfers responsibility for all apprenticeships to the Scottish Funding Council (SFC) from Skills Development Scotland from April 2027. This should create an opportunity to streamline the process – called frameworks – used to develop new Graduate Apprenticeship frameworks. However, further action is needed by the Scottish Funding Council to improve the efficiency and effectiveness of the framework processes it inherits. This would be entirely consistent with the principles of the Act, which sought to bring more agility to the skills space.

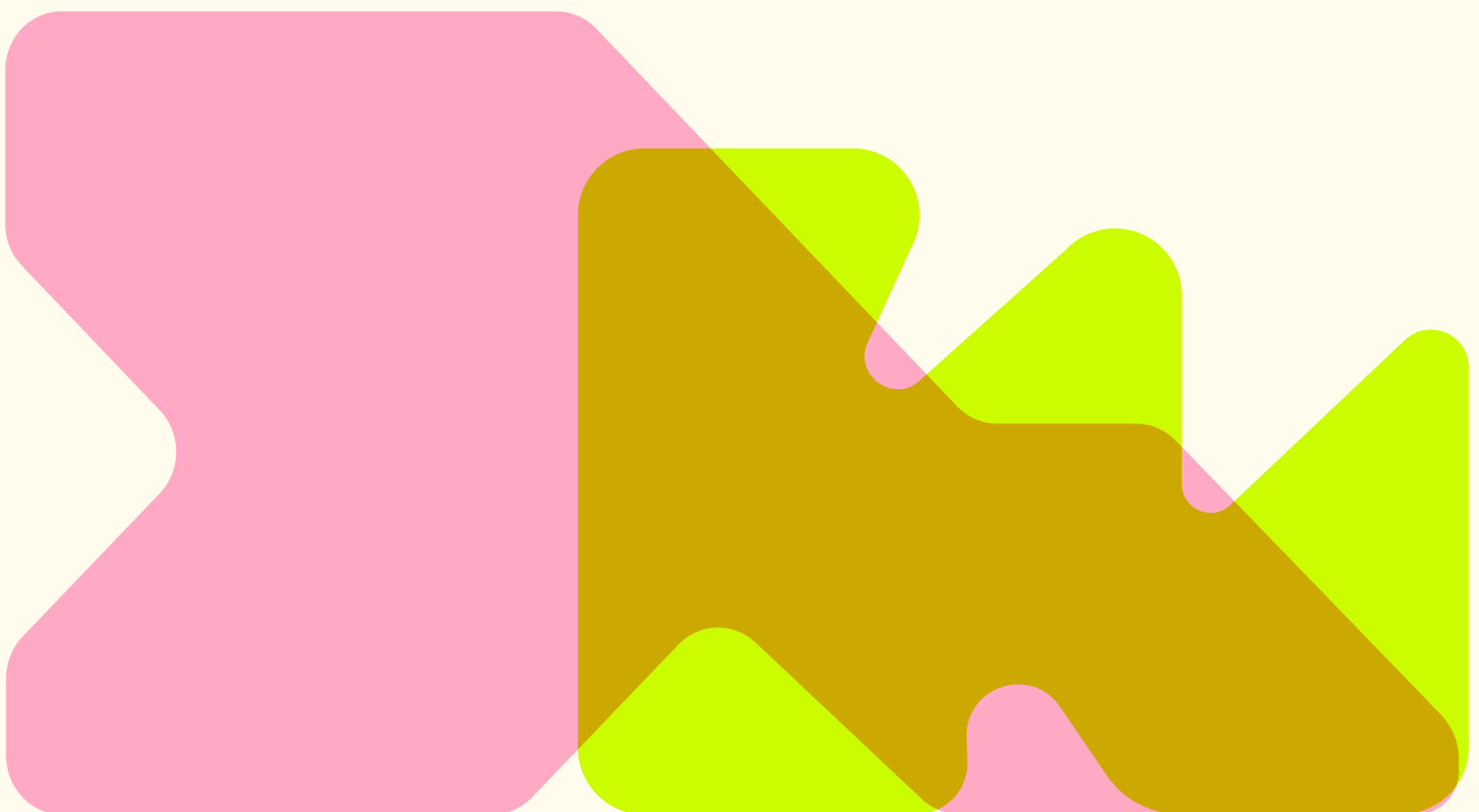
Universities are keen to expand graduate apprenticeship provision but they can only do so if the conditions are right. As well as process improvements, universities need sustainable and adequately resourced funding per apprenticeship as well as more funded graduate apprenticeship places.



Redesigning for the future

In partnership with the Scottish Government, Universities Scotland is looking to co-create a new funding Framework capable of securing the financial sustainability and success of Scotland's universities to 2045.

The Future Needs pillar of the [Future Framework](#) involves drawing on trend analysis and forecasting tools to anticipate the changing needs and expectations placed on universities 20 years from now and exploring those potential long-term horizons with our stakeholders of today. Some of the strongest trends include the following...



1. A much-changed learner population by 2045.

By 2045, Scotland's universities are likely to serve a markedly different learner population from today. Demographic projections for Scotland suggest that school-leaver numbers decrease from 2030, our society gets older and there will be a smaller proportion of working-age people to sustain the labour market.

These trends point towards a future in which universities are no longer as focused on school-leavers studying for a single degree at age 18. Instead, a larger share of learners may be adults returning to education throughout their working lives to reskill, upskill and adapt to changing labour market demands. The growth of AI, automation and longer working careers will reinforce the need for lifelong learning, flexible study options and stackable learning, that allows for a better balance of study, work and other responsibilities, and more personalised routes through education.

At the same time, expectations around learner support are changing. Rising awareness of mental health challenges and growing recognition of neurodiversity are reshaping how learners want to engage and how institutions think about learning environments, student services and assessment. Scotland's public health projections point to sustained concerns around mental wellbeing, particularly among younger people, whilst neurodiversity is set to increase amongst the young and adults.

Taken together, these trends suggest universities in 2045 will need to be more flexible, inclusive and responsive. Success will be defined not simply by recruiting students, but by supporting a much more diverse learner population with different expectations, circumstances and learning needs. The universities that thrive will be those that can combine academic excellence with adaptable delivery models, personalised support and lifelong relationships with learners across multiple stages of life and work.

2. The need for Scotland to generate high-value jobs as well as fill them.

Productivity growth in Scotland and the UK has remained stubbornly weak for over a generation and the economy has struggled to generate sufficient numbers of high-value, high-skilled jobs across all regions. Economic modelling suggests that if Scotland's economy didn't have the number of graduates it does, growth would be even worse – or negative.

Over the next 20 years, universities will have an ever more important role not only in preparing people for the jobs that exist today, but in supporting the creation of new jobs. As technological change accelerates, universities will be essential in helping existing industries adapt and diversify, whilst also supporting entirely new sectors to emerge and grow – creating new jobs at all levels. This is in addition to the role universities have in supporting enterprising students and staff to launch start-ups and spin-out companies. The unique contribution universities have in this regard lies in the combination of high-level skills and talent development, world-class research, innovation, entrepreneurship and being rooted in their places.

"Scotland's reputation as a global hub for creative technologies is built on the expertise and vision of universities like Abertay which provide the graduate skills pipelines required for emerging industries to flourish, while also pioneering the research and innovation that drives the jobs of the future. There are so many conditions required for a tech cluster to truly thrive, but nurturing young talent through higher education and instilling them with the skills and confidence to invent or reinvent new products, pipelines and services is essential for innovation and future success."

Chris van der Kuyl CBE FRSE, Chair of 4J Studios

We can see this contribution in existence in Scotland already. The growth and resilience of Dundee's globally recognised games industry was built and then sustained on the interaction between university expertise, entrepreneurial talent and industry collaboration. What exists now grew from an undergraduate degree in computer games more than 30 years ago. Scotland's creative industries are fuelled by the talent and enterprise of our specialist institutions. More recently, Scotland's leading credentials in quantum technologies have drawn on decades of university research and innovation. Similar strengths exist in areas such as life sciences, green hydrogen, advanced manufacturing and informatics to name just a few.

In a future shaped by AI and automation, the jobs most likely to prosper will be those that combine technical expertise, creativity, problem-solving and innovation. Universities will therefore become even more important as engines of economic renewal, helping businesses adopt new technologies, commercialise research and create new sources of competitive advantage. The challenge for 2045 is not simply producing more graduates, but empowering universities to co-create secure, productive and well-paid jobs in every part of Scotland.

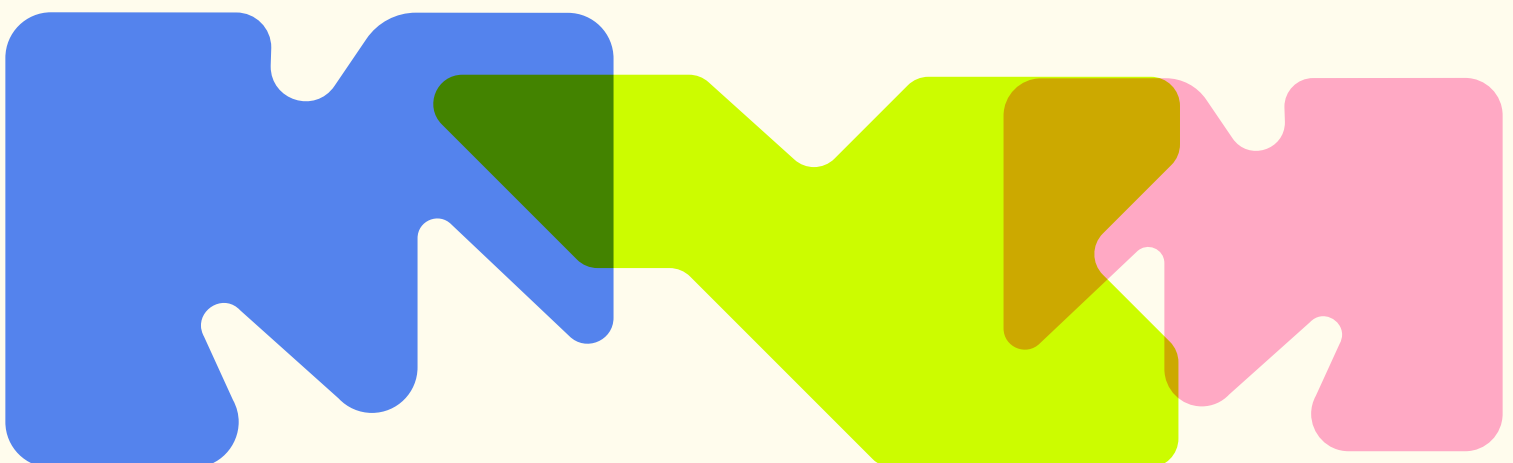
This is not a conclusion

The insights in this report are an important starting point, not the final word. Labour markets, technology and workforce needs are changing rapidly, and universities need to continue shaping their response in partnership with employers, government and learners.

We encourage employers and industry partners to stay involved in this work by sharing their evolving skills needs and workforce challenges over the short, medium and long term. We are also keen to hear about wider strategic trends that may shape future demand for skills, talent and innovation but are not yet fully reflected in this discussion.

As the [Future Framework](#) progresses, ongoing engagement will be essential to ensuring Scotland's universities can respond to today's challenges while preparing for the opportunities and uncertainties of 2045 and beyond. At UK level, Universities UK will focus on delivery of its Future Jobs Roadmap to ensure that universities play their fullest part in securing a brighter future for the next generation.

Together, we can help ensure Scotland has the talent, skills and ideas needed to support future economic growth and prosperity.





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**Future
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