

**Kingston
University**
London



Future Skills

**League Table
2022**

With thanks to our contributors



With photography from Pete Langdown, Lucy Ezzidin & iNHouse Communications

Introduction from Professor Steven Spier, Vice-Chancellor, Kingston University

Last year, Kingston University started a national conversation around 'Skills for Innovation' when we launched our 2021 Future Skills League Table.

In this, business clearly identified 'Skills for Innovation' as most important to meeting the challenges they face. Interestingly, those skills can best be attained through exposure to the varied ways in which disciplines approach and act on a problem, and so does not favour any one over another. As business shows us, the skills needed by the workforce to navigate through today's significant social and technological changes are not simply acquired by reading a subject.

That's why, this year, we seek to push the debate onto the practical steps we can take to integrate 'Skills for Innovation' across business and higher education. Put simply, there needs to be a more holistic approach, bringing together government, business and higher education to ensure Future Skills are embedded in and valued across the increasingly life-long learning cycle. This report demonstrates that there are concerns around the economic security of the country, and the skills of its future workforce; cohering government, business and higher education around Future Skills will go a long way to allaying those concerns.

In partnership with YouGov we have continued our conversation with business, engaged extensively with politicians and policymakers in Westminster and Whitehall, brought students into the discussion.

Crucially, this year's report provides another opportunity for business to assert what they feel the biggest challenges are and the skills they most value. The ability to communicate, analyse, adapt, problem-solve and think creatively are the key skills that business requires. Despite the changing global situation, such skills were similarly identified in polling last year; what business says it needs could not be more emphatic. As case studies this year and last demonstrate, those skills can be delivered in a range of courses, and the work of a multidisciplinary team can powerfully raise performance. Kingston University is so committed to the power of this that our new Town House Strategy will ensure that Future Skills are embedded in the curriculum for every student in every programme.



This report confirms that Future Skills are a priority for the nation's prosperity. But to deliver them we need government, industry and education to work collaboratively to ensure that existing hurdles are overcome, emerging obstacles can be avoided, and potential opportunities maximised. The report highlights examples of educators and industry figures working collaboratively to meet and overcome obstacles.

The successful integration of Future Skills in all areas requires coherency in both policy and approach. We call on the Government to create a Future Skills Council, modelled on the CIC, co-chaired by Ministers from DfE and BEIS – and senior figures from higher education and business to achieve this.

Vice-Chancellor
Kingston University

Setting the Context



It is now beyond doubt that the dramatic technological and social transformations of the last few decades will continue to accelerate and impact how we live and work.

Of particular relevance for universities are the ways in which we access information and conduct ourselves with others. With the world at our fingertips, access to information and people is now more immediate and comprehensive than ever. It is the ability to work across forms of knowledge that will help facilitate creative problem solving and thereby drive innovation.

Gradually, though, the country's post-pandemic, post-Brexit landscape is coming into view and it's already obvious that both are bringing profound change to work patterns and the overall shape of the labour market. In a more competitive environment the need for employee adaptability will certainly grow. Firms have an even greater incentive to invest in the capability of their staff, ensuring that they retain the right people and equip them with the right skills. Employees, meanwhile, can ensure they remain in demand by constantly developing their skills. Universities should be promoting skills for innovation and embedding them into the curriculum, while also strengthening links with employers and building partnerships that foster career opportunities for graduates.

“ **The most important skills needed for today's working world involve having a curious, growth mindset. As automation and technology change the nature and types of jobs we do, we will all need the confidence and openness to learn new skills and ways of working throughout our careers. And to be innovative it is crucial to think divergently - questioning assumptions and stretching boundaries. Skills like divergent thinking are critical to human progress.** ”

John Vary, Futurologist, John Lewis Partnership

The government has, arguably, an even greater incentive to ensure that life-long learning becomes a reality. If it is implemented in the right way, lifelong learning has the potential to unlock opportunities for learners and deliver on the country's skills needs.

The challenge to train and keep talent

Last year, we commissioned YouGov to ask a 2000-strong representative sample of businesses what challenges the UK faced in ensuring it remained globally competitive in the next 10 to 20 years.

In the 2021 report, more than half identified 'competition from emerging economies like China and Singapore' as a challenge. This made it the most pressing concern.

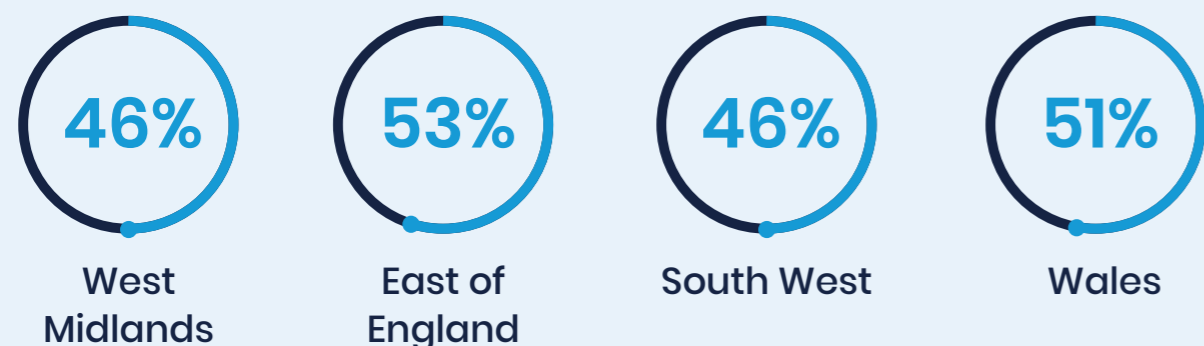
However, this year 'competition from emerging economies' fell into second place behind 'attracting and retaining talent in the global marketplace' which topped the list at 45% of respondents. Only in the **North West**, at 51%, was this a higher priority than in **London**.

Similarly, if we are to apply the regional perspective to 'competition from emerging economies' being a priority, the **West Midlands (46%)**, **East of England (53%)**, the

South West (46%), and **Wales (51%)** all rank it as of greater concern than those in **London** and the **South East**.

The results of a question on what businesses want the government to prioritise over the same 10 to 20-year period are, in light of the above, unsurprising. Some 57% of respondents chose 'investing in a skilled and adaptable workforce' from a menu of priorities, a percentage only matched by the number who chose 'developing the country's social infrastructure' as the top priority.

Regional concerns on competition from emerging economies



Levelling Up: Spotlight on the South West

The South West is a case in point for how unpicking the data clarifies the needs for Levelling Up. In all three of the top metrics ('attracting and retaining talent', 'competition from emerging economies' and 'need to foster an environment that encourages innovation') the South West scores higher than London and considerably higher than the national average. This shows genuine concerns in that region around these macro-economic issues.

Recent data based predictions suggest that, along with the North East and Yorkshire & the Humber, the South West is set to be one of the slowest growing regions. Despite strong performances, the YouGov polling data sets out the scale of the task ahead as the Government seeks to level up the UK economy, with the gap between London and the rest of the country set to grow again during the post-pandemic recovery. It is clear that action is needed to safeguard this regional economy and ensure that its workforce can successfully meet the challenges of the future and the South West doesn't get left behind.

From a regional perspective both 'investing in a skilled and adaptable workforce' and 'developing the country's social infrastructure' were seen as more urgent outside of **London** and the **South East**. 57% of those polled in **London** saw 'investing in a workforce that is skilled and adaptable' as a priority, compared to 67% of those in the **West Midlands**, 64% in the **East of England**, 60% in the **South West**, and 61% in **Wales**.

Furthermore, the third most popular priority being 'investing in R&D and innovation' again underlines the desire for concerted investment in our skills and knowledge base. The only region that scored higher than **London** with regards to R&D was the **East Midlands** at 58%. It is perhaps interesting that in **Yorkshire & the Humber** 'closing regional inequalities' polled as a priority for 56% of respondents, compared to only 35% seeing it as being of importance in **London** – quite a stark contrast. The Levelling Up agenda, in tandem to embracing the arguments this **Future Skills League Table** report makes, can go a long way to addressing the concerns raised by the regions.

Case Study: Coca-Cola Company

The Coca-Cola company is an organisation that thrives on creativity and innovation, striving to become award winning in our campaigns to refresh the world and make a difference.

During the lockdown we wanted to ensure we delivered Coke Magic for our iconic Christmas Campaign. The brief was conceived to describe a 'Christmas apart' and how everyone was craving the company of their loved ones. Shooting a Global Christmas ad with our Production Director based in the UK during the pandemic was an immense challenge however, working closely with our agency partner, W&K and Director Taika Waititi (Jo-Jo Rabbit) we knew we had the winning combination to make magic happen.

In each country we operate in Governments would only allow filming to continue under strict health and safety guidelines; as we couldn't fly key crew, something we always would have done in the past, we had to ensure we engaged the best local crews.

To minimize travel we needed one location. For a Christmas advert, with its snowcapped mountains, forests and lakes all in one country, New Zealand (NZ) was the only location that would work for our story.

We chose a director that understood the local terrain, had local contacts and the skillset to overcome the challenges of shooting in a pandemic. A Kiwi by birth, Taika by now was living in LA. His access to world class crew and talent in NZ meant we had some of the main crew who'd worked on "The Lord of The Rings" on our project, this gave us a lot of comfort as we moved forward with a fully virtual shoot.

In addition, Taika had worked with our key protagonist Cohen Holloway before, so they already had a shorthand to getting the best performance. Cohen performed most of the stunts himself. We streamed the entire shoot via QTake and Zoom and in the most remote places the network team proved their resilience and climbed mountains to ensure links with the internet connections. The tech allowed us to be truly creative and was incredible allowing us to get fantastic footage.

The Mill in London were our post-production partners overseeing all the compiling of the shots we created against green screen. The most complex shots were compiling the whale into a live action shot of Cohen falling from a dinghy onto tarmac in a car park and then re-creating an entire ocean and stitching it all together seamlessly.

The other main post shoot task was the Coke Christmas truck, which we shot during the daytime for a night scene and then had to remake the entire background featuring the northern lights. A Truck with a lot of reflective elements meant weeks of post work from the 2D and 3D team.

The weather and Covid were our two biggest challenges as both were out of our control. The other main challenge was the time differences. Taika in LA, the shoot in NZ and us in Europe. Try figure the schedule on that one. 7pm until 7am 8 nights in a row. So innovation and creativity were what allowed our success.

Case Study: Cell and Gene Therapy Catapult

The cell and gene therapy industry in the UK is a rapidly expanding industry of national strategic importance.

To ensure the sector had enough people with the right skills it was clear it needed its own apprenticeship scheme.

With a grant of £15 million from IUK Cell and Gene Therapy Catapult, this scheme has enabled more than 230 people to start apprenticeships, developing skills in around 15 core standards at more than 45 firms over the last five years.

Critical to the success of the scheme was the insight drawn with help from the Gatsby Foundation of the need for the sector to coordinate. The Advanced Therapies Apprenticeship Community (ATAC) was set up to amalgamate demand and coordinate apprenticeship activity throughout the sector. The ATAC programme set out to

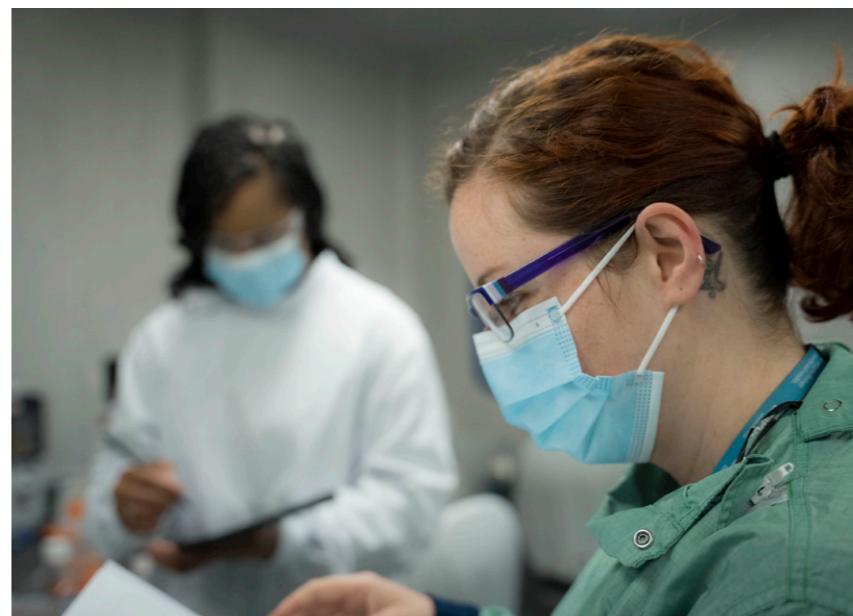


build an industry community to deliver apprenticeships from Level 2 up to degree apprenticeships.

ATAC has supported programme design, attraction and recruitment as well as providing valuable enrichment activities in technical and personal skills and utilising new technology such as Virtual Reality to enhance development.

This has resulted in £15.1m being invested by industry including £6.5m unspent apprenticeship levy to develop key skills and capabilities in the sector.

More critically it has built a vital skills pipeline ensuring that this exciting new industry has the end-to-end talent management that will keep the UK at the front of the pack in the decades to come.



Making it happen

Training and retaining talent in the right areas will not happen by chance; it will require concerted efforts from business, government and education providers.

To help move the conversation forward, we aimed to drill further into what businesses feared might hold the UK's workforce back over the medium term (again defined as between one and two decades from now).

The automation of roles, the rise of the 'gig economy' and, post-Covid, navigating the new hybrid working arrangements that the pandemic has produced all

registered reasonably strongly in the list of challenges present. The largest totals, however, were recorded for an absence of what might be called 'future-proofed' skills (creativity, adaptability) and the absence of opportunities or willingness to upskill or reskill.

What does 'future-proofing' really mean? In roundtable discussions a senior executive of TikTok reflected that, as a young company, the skills that the business currently needs are constantly changing. Nor are they necessarily technical – innovators in marketing can be as valuable as those in algorithms.

As Kelly Devine, Division President, Mastercard UK & Ireland, put it:

“It's critical that we recognise how the future of work – and workers is evolving. New technologies are transforming the world of work and we need to ensure that everyone is equipped with the skills to navigate the jobs of tomorrow. New digital skills and computer literacy, alongside more traditional workplace skills, will help the UK workforce adapt to new industries of the 21st century, and ensure that no one is left behind.

That's why Mastercard – through our Center for Inclusive Growth – is working alongside RSA and Bayes Impact to create lifelong learning programmes to enable all British workers to succeed in the digital world of work.



Case Study: Kingston University

When the world is becoming more interconnected through technological innovations, and the pace of societal change is accelerating, universities narrow, subject-specific depth is an obvious hindrance to developing the skills business says it needs. These are, in short, to understand, learn and benefit from other means of making sense of, and acting in, the world; of other methods of inquiry and forms of knowledge. This drives innovation.

The new pattern of work is characterised by the transformation of employment from a career path that has been linear to one that resembles a portfolio, with people moving within or between professions, some of which will be redefining themselves; some of which do not yet exist. The business imperative for Future Skills, or higher cognitive skills, is emphatic and will continue to be so. This puts two demands on educating students. The first is to equip graduates with the ability to continually learn and adapt their knowledge to different circumstances. The second is to ensure that Kingston graduates are known for having the future skills that employers have identified and can articulate and demonstrate them.

In educating students, therefore, Kingston University will deliver not just subject specific knowledge, but also Future Skills. We have translated the skills identified as vital for success as an employee or entrepreneur into Kingston University graduate attributes. We will explicitly develop these in every student to help them succeed in their studies and employment. In addition, we're piloting new employability metrics.

We will embed the development of future skills throughout every year of every programme for every student. For instance, in the first year the student's learning pathway, will begin with an individual diagnostic to

develop tailored means of engagement to facilitate and measure the acquisition of Future Skills. Then, an increasingly personalised menu of opportunities will allow students to develop and apply these skills to their unique programme of study. It will include individual insight assessment to foster self-awareness, creative problem solving through design thinking, and ways of thinking and behaving foreign to their chosen programme of study.

“ Kingston University Town House is a theatre for life—a warehouse of ideas ... In this highly original work of architecture, quiet reading, loud performance, research, and learning, can delightfully co-exist. That is no mean feat. Education must be our future—and this must be the future of education.

Lord Foster, RIBA Stirling Prize citation, 2021





“ Universities should be promoting skills for innovation and embedding them into the curriculum.

*Professor Steven Spier, Vice-Chancellor,
Kingston University*

Case Study: Creative Industries Council

Council is a great example of how bringing together government and business builds a talent pipeline and ensures the country benefits from an industry where the UK really does lead the world.

The council was set up to lower the barriers to growth such as access to finance and export markets, regulation, intellectual property, but also crucially skills.

Its Creative Careers Programme aims to engage with more than 160,000 school-age students and enable around two-million young people to access great advice about pursuing a creative career.

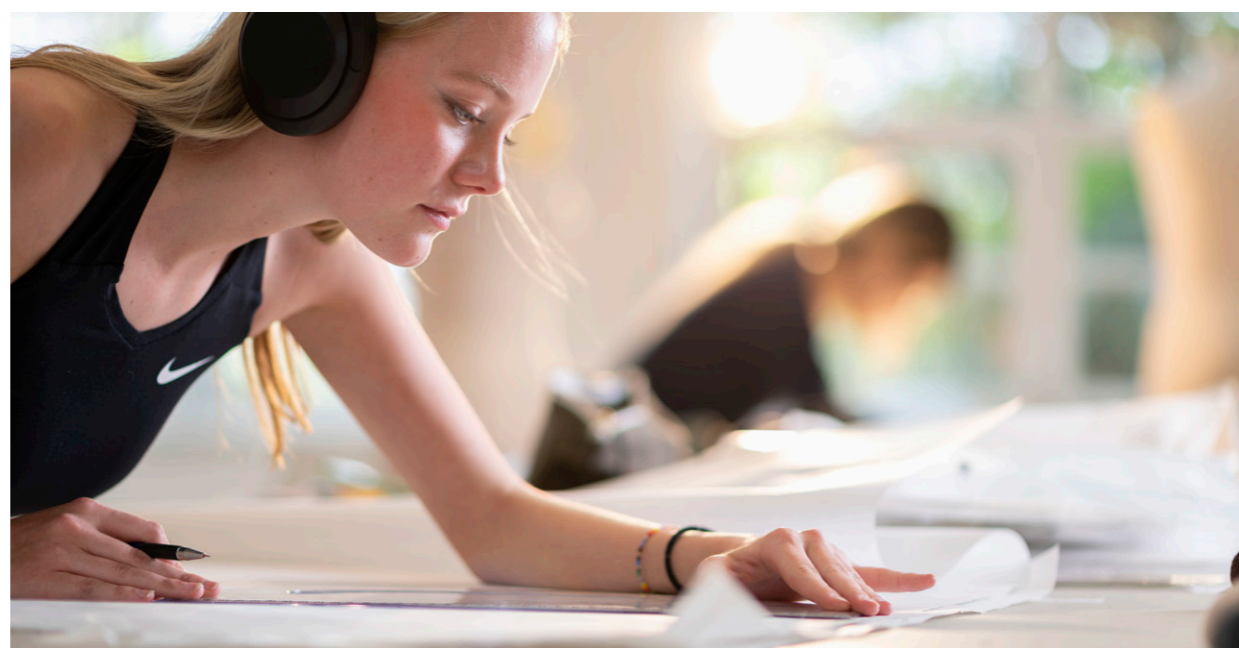
The programme is being delivered by Creative Industries Federation, ScreenSkills and Creative & Cultural Skills, in collaboration with The Careers & Enterprise Company and Speakers for Schools that helps inspire the next generation of creatives.

Additionally the council is helping to raise the profile of CreaTech, which brings together creative skills and emerging technologies like 5G, virtual reality and artificial intelligence to create new ways of engaging audiences and to inspire business growth and investment. Over £5bn has been invested in UK CreaTech businesses by venture capitalists since 2017, and CreaTech investment recently jumped 16%.

It also oversees collaboration in higher education through the Creative Clusters programme comprising nine creative clusters across the UK and a new Policy and Evidence Centre, led by Nesta in partnership with 13 universities. The programme combines world-class research talent with companies and organisations in a first of its kind research and development investment.



Crucial to the success of the council is its structure – it is co-chaired by the Secretary of State for Digital, Culture, Media and Sport and Secretary of State for Business, Energy and Industrial Strategy. In the four years since its creation the council has set the standard for cross-departmental working.



Case Study: ScaleUp Group

The world of graduate recruitment is changing fast. Insights developed in the rapidly-evolving world of technology firms are spreading to other more traditional industries.

One example is how ScaleUp Group, a consultancy that usually works with growing technology firms, has been asked by a sports company to establish its graduate scheme.

Following a recruitment that will test candidates' emotional intelligence rather than rely on standard verbal and numerical reasoning measures the scheme aims to build communication and relationship-building capabilities.

Students that can communicate well are vital for the company to continue growing and improving. They want graduates to broker more relationships and partnerships: they want the graduates to add value.

The new scheme draws on the insights of the world of scale-ups which need to adapt quickly to evolving environments to ensure they secure maximum profit to enable growth. People are typically expected to work across a variety of business functions



including events, brokering, tech and analysis. Graduates need to adjust to different roles quickly as business' priorities and demands change.

So while graduates remain a priority for hiring for the businesses that ScaleUp advises, the type of degree they possess is no longer their top priority. It isn't always necessary to have a business or economics degree to work in a finance start-up, for example, but communication, creative-thinking, empathy and adaptability are vital.

For Scaleup Group, it isn't your degree title that will keep you in a role, it is the skills you bring to the business. Graduates will be kept on and promoted if they can communicate effectively, adapt quickly and drive innovation. These are the skills that graduates provide, and we need to develop more of this type of skills training in the future.

Case Study: Limitless

Limitless are re-inventing customer service by connecting customers with real know-how to deliver fantastic customer experiences for the world's leading brands. These brands include Dell, Microsoft, and Unilever.

They believe experts, those people who have real life experience of the product, who care the most about your brand should be the face of its customer support. This is a radical change in the customer service space. Limitless want to ensure those they are hiring have developed the skills needed for this changing environment. Limitless is growing rapidly and hopes to double the number of its employees in a year, from 50 to 100.

Limitless call those working on this new customer service platform GigCX Experts. In a recently published report, Limitless found 82% of GigCX Experts Limitless surveyed felt the nature of customer service queries has changed over the COVID-19 pandemic. The findings show people want added services, faster answers, and more personalised contact. Limitless know this new style of thinking requires more than just a university degree, but a broad range of skills such as critical thinking and communication.

Limitless is all about new thinking. However, many graduates they hire currently think in a linear way, especially in the customer service space. This is a significant challenge the business faces: finding employees with the aptitude and training to think in creative and critical ways. They want graduates who can move away from just a business focus to have a broader customer focus. These skills come from people who are creative, adaptable, and can problem-solve. This applies to both the graduates they hire within Limitless, and the GigCX Experts supporting on customer service.

Limitless is looking to discover these people with 'new thinking' by finding graduates with a broader world experience. They are seeking to overcome their challenge by hiring people who have nurtured a passion for a more comprehensive range of things in education, rather than focussing on just getting employed. They seek graduates who have had their minds developed at university in many different ways and have built many skills rather than focussing on the specifics of their degree course. Being creative and motivated, alongside being a strong communicator with problem-solving skills, can help drive Limitless' new way of thinking within the company and outside of it. Hiring and partnering with people who have a broad range of Skills is enabling Limitless to grow rapidly. They are hiring people not based on specific degrees but on how they work and what they bring to support the company ethos.

Experts at Limitless have skills and areas of expertise that AI can't mimic today. They provide a human connection, a feeling of community, troubleshooting, and specific knowledge that is tough to capture in information repositories, AI's source for information.



Limitless wants to strive to have these skills taught throughout education, so that young people develop a broad range of ways of thinking and can adapt to the constantly evolving business landscape.

Future Skills

Last year we launched the **Future Skills League Table** to draw out which competencies were most valued by Britain’s businesses as they face the global challenges ahead.

With the help of YouGov we surveyed more than 2000 senior decision-makers in a representative sample of firms across the UK. From a list of skills drawn by eleven businesses and three universities, respondents were asked to choose which they thought should be developed to ensure that the UK remained competitive over the next two decades.

The results of this year’s survey broadly match those of the initial survey with problem-solving the most valued skill for innovation. Critical thinking edges communication into second place, a reversal of last year’s rankings. And while digital and analytical skills both performed strongly they were again challenged by more general qualities of adaptability and creativity underlining how acutely aware firms are that they will need a resilient workforce able to get the best out of rapid change.

Confirmation of the future skills that businesses value in this year’s league table underlines the need for a new metric of graduate attainment. The current Office for Students measure fails to capture the value of those with the initiative to set up their own firms or take part in social enterprise. And while a full-time job is a valued destination for some graduates many others prefer today to enter the gig economy. Many of these will have exactly the sort of skills for innovation that are so vital if the UK is to adapt to the changing world.

Top 10 Future Skills as identified by businesses



“ **A common mistake that people make when discussing tech companies is that they automatically assume companies like TikTok are only looking for people who can code or data scientists. But in reality, tech firms are looking for a range of employees in non-tech areas like marketing and project management. Tech companies need to do more to explain what working in tech is. It is not just sitting in front of a computer all day.** ”

There are some partnership opportunities between industry and university to develop modules that can demonstrate these pathways. Students should learn how the skills they are being taught can help them get a job in the future, and businesses can support in developing this.

The traditional 'milk round' approach to finding skills doesn't necessarily work for companies which are moving incredibly fast as what we need will consistently change. What we need from graduates now may not be what we want from them in a couple of years. It is like trying to build a plane while you fly it.

The sector needs to develop programmes where graduates can be placed in different parts of a business and adapt to new roles. This is why partnerships on modules will be so important, to develop the skills needed for constant change in a career. This is how we will create graduates that are 'job ready' most effectively.

Giles Derrington, Senior Government Relations and Public Policy Manager, TikTok

Student Polling

So far we've seen how much businesses value the skills for innovation and how regulators could better demonstrate that valuation when assessing creative

We've reflected the growing sentiment that delivering the adaptability that is key to the innovative workforce of the future, and we will need a new model of higher education.

But of course, the most important stakeholders in this conversation are today's students. What do they want from the time and the money they invest in themselves? How do they see their future careers? Do they value the same skills as their future employers?

To get a sense of the answers to those questions we asked You Gov to poll a representative sample of more than 1,000 students.

Encouragingly, students value the same sorts of skills as those identified by businesses as critical for helping the UK meet the global challenges ahead. Asked to choose from a list of those competencies they thought would most improve their future employability, the top three of problem-solving, communication and critical thinking were exactly the same as those chosen in the business survey.



Students' appetite for moving between sectors, however, is less marked. Asked to choose any from a menu of career pathways that interested them, the most popular, chosen by **56%** of respondents, was a linear career, that is staying in the same sector if not the same role. The next most chosen pathway, chosen by **37%**, was a non-linear career, that is moving between sectors. Entrepreneurship and business ownership was selected by **12%** while freelance work and self-employment attracted **18%**.

There were some intriguing differences in the details of the poll - students from the South East of England, for example, were significantly more attracted to non-linear career pathways than in other UK regions. Older students, perhaps unsurprisingly, are also more open to switching between sectors.

Further work may well be required to dig into what is driving the strong attachment to a linear career pathway, something that may become increasingly rare as the world of work absorbs the consequences of the next wave of technological change.

Alignment of students and their employers over skills is needed, however, a solid foundation for the work of building the new models of higher education required.



“ I have sat on many business boards, and I consistently find that most people around the table haven't come from a traditional business degree or technical background. Their degree qualifications are often random and rarely associated with the career they have been successful in. These include graduates of geology, history of art, psychology, chemistry, archaeology and English Literature. It wasn't the type of degree they did that got them to that board level; it were the skills and passion for what they did, developing alongside the formality of the degree.

Limitless is a fast-growing, market-leading company that doesn't hire based on degree topics. A much more significant focus is placed on underlying skills such as critical thinking, flexibility and interpersonal abilities. When it comes to these key skills, people who studied philosophy can do just as much, sometimes more, than those who studied mathematics and computer science. We are here to support and develop a team based on aptitude and commitment, and not to judge people by qualification.

Mike Havard, Chairman, Limitless Tech and board member/advisor to a range of high-growth organisations.

Future Skills Framework

This report confirms that Future Skills are a priority for the nation's prosperity. But to deliver them we need government, industry and education providers to work collaboratively to ensure that existing hurdles are overcome, emerging obstacles can be avoided, and potential opportunities maximised.



Future Skills Council

We ask the Government to create a Future Skills Council, modelled on the Creative Industries Council, showcased above, with both the Education and Business Secretaries as Co-Chairs. The Future Skills Council will focus on how to solve the workforce skills challenge and the roles of government, industry and education can each play.



Expand the remit of the Minister for Higher and Further Education

In addition, to underpin this cross-departmental focus on skills delivery, we ask the Government to position the Minister for Higher and Further Education in both the Departments for Education and for Business, Energy & Industrial Strategy.



R&D Spending

Industry to commit to increasing R&D spending to OECD average of around 2.4%. In 2019 UK gross domestic spending on R&D was circa 1.7%, whereas South Korea invested more than double.



Regulation

An employability metric that will support start-ups, entrepreneurs and industries needs to be created.



Funding, Incentives & Opportunities

Adapt funding mechanisms such as the apprenticeship levy and lifelong learning entitlement to deliver Future Skills.



Business Should Then

- ✓ Recruit and reward applicants who demonstrate the skills that are the foundation of the UK's competitiveness.
- ✓ Collaborate with local and regional Higher Education institutions to facilitate better post University recruitment pathways.
- ✓ Develop a variety of means to reskill employees.
- ✓ Partner with Universities so students develop the Future-proofed workplace skills.



Universities Will Then

- ✓ Pilot modules that integrate skills for innovation into learning.
- ✓ Embed entrepreneurial skills in all degree courses.
- ✓ Link students' skills development to future jobs.
- ✓ Work with employers to deliver career opportunities that draw in future-facing skills.
- ✓ Build partnerships with employers to deliver creative approaches to problem solving.

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If you would like more information then
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