

**Kingston
University**
London



Future Skills

**League Table
2021**

With contributions from:





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The importance of creativity and innovation to the future UK economy and the global pre-eminence of our creative industries contradicts the most recent government declaration that university education for the creative industries is not important strategically, with reductions in their funding no doubt to follow.

Professor Steven Spier
Vice-Chancellor,
Kingston University

With my own professional background in the creative industries, as a practitioner and educator, and now as Vice-Chancellor of Kingston University, I have become increasingly alarmed at the disconnection between the acknowledged value of our creative industries and government policy.

The creative industries make a substantial contribution to the economy, in and of themselves, but crucially they also add value to other industries. However, the importance of creativity and innovation to the future UK economy and the pre-eminence of our creative industries in supporting global Britain contradicts the most recent government declaration that university education for the creative industries is not important strategically, with reductions in their funding no doubt to follow.

To resolve the paradox of these positions and subsequent policies, we decided to ask employers themselves about the challenges the UK faces in remaining globally competitive over the next 10-20 years and the skills they are looking for to meet those challenges. We first asked a small number of industries, mainly from outside the creative industries – such as Deloitte, Mastercard, Lidl – which skills will help meet the government’s aim of a high-growth, sustainable and secure economy.

From this intelligence we formed the questions that we put to businesses of all sizes and sectors across the UK through YouGov Business. A weighted sample of over 2000 employers contributed to the survey and you can see the results overleaf. The overwhelming concern was the threat from emerging economies, and the greatest need was for creative problem-solving as well as adaptability, communication and analytical skills. These are the skills for innovation.

We include in this report examples of how creative skills have led to business transformation, regional growth, and impact on local communities. You will see that the applicability of such skills is not only central to the creative industries in which the UK is pre-eminent but also a catalyst in others, such as healthcare, local services, sustainability and regeneration. This is the environment in which the rigour of creative problem solving prospers and helps grow new approaches, products, and industries.

We’re keen to hear what policymakers, employers, other higher education institutions and the creative sector make of the data. This is an ongoing project for us, so please do get in touch if you have comments, insights or support to offer.



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Behind every successful business is a great idea; a desire to deliver a service or product or business architecture that’s new, different or more effective than what’s come before. Across all sectors, the essential ingredient in generating any good idea is a creative mind.

Creativity is an indispensable asset to business and yet, perhaps because it is by its very nature unquantifiable, it is one that is too often taken for granted or not seen as a priority.

As we emerge from the pandemic, even the most successful companies will be required to adapt and change. This requires the ability to think creatively, to question how processes can be improved, and to identify solutions for a raft of new challenges. The skills needed to achieve this – indeed those identified in The Future Skills League Table – are invariably skills which are developed and nurtured through a creative education that ignites rather than squanders innate abilities. Those fortunate enough to engage in creative learning are taught and imbued with the confidence to communicate and work with others, to use their initiative and intuition, and to see their subject matter as something that is continually evolving and never confined by a ‘correct way of thinking’. I use the word ‘fortunate’ because sadly, it is increasingly the case that access to a meaningful creative education is the preserve of a privileged minority. It is undervalued, and therefore underfunded, meaning fewer and fewer young people are given the opportunity to develop these much-needed skills.

Creative practitioners are entrepreneurial, agile, and always seeking to grow their technical skills and knowledge. Surely these are attributes that companies in every sector – from financial services to manufacturing and logistics – should be looking for in their employees. Creative skills are highly resistant to automation. They are needed in every industry, and as we look to re-establish ourselves post-Brexit and lead the 4th Industrial Revolution, the UK will need them more than ever.

If businesses place greater emphasis on the value of creative skills within their workforce, the capacity for applied imagination within their companies (and the benefits that brings) will increase exponentially. If the UK learns to value and truly harness its collective imagination, our country’s brilliant creative minds will be enabled not only to rebuild our country post-pandemic but drive it towards an inspiring and sustainable future.

Rick Haythornthwaite
Chair, Ocado; Chair, Creative Industries Federation and Creative England

The UK Economy Future Challenges

Initial interviews were carried out with senior executives from 11 businesses and with three universities from across the UK. The employers represented a range of sectors from technology to financial services to retail; as well as creative businesses across the UK, from video games developers to exhibition designers to luxury interiors specialists.

They told us about the barriers they feared might affect the UK's potential to be a high-growth, sustainable economy in the medium term. These challenges were put to 2020 adults representative of British businesses across the UK, surveyed online by YouGov between 13th – 26th April 2021.

Those countries that UK businesses see as a challenge to our future global dominance are themselves investing and preparing for the uncertain future ahead.

China is investing heavily to transform the Greater Bay Area of Guangdong, Hong Kong and Macau in to a global centre for technology and innovation, increasing links between their universities, financial institutions, industries and infrastructures.

In Singapore they see 'design thinking' as one of the solutions to increasing global competitiveness. In December 2020, Singapore's Ministry of Trade and Industry partnered with DesignSingapore Council to launch the Design Education Advisory committee.

The Minister of State of Trade and Industry, Low Yen Ling, said '... the DEAC will play a vital role in ensuring an agile workforce equipped with the ability to understand changing user behaviour, and capable of innovating and solving complex problems. These valuable skillsets are key in enabling businesses to become more resilient and competitive, especially amid the current global uncertainty.'

Emerging economies have modelled creative and cultural policies on the UK's 'soft power'. According to a recent British Council report, South Korea has looked to the UK for the way we have built up our institutions, particularly educational and cultural, and to our success in innovating, inventing and creating a thriving creative industries sector.

“ These valuable skillsets are key in enabling businesses to become more resilient and competitive, especially amid the current global uncertainty. ”

Low Yen Ling
Minister of State, Ministry for Trade and Industry Singapore

“ Without investing in creativity we won't produce the really innovative tech businesses which go beyond tech to the end-to-end experience. If we don't grow the talent, someone else will. ”

Andrew Pearce
Managing Director, Accenture

Businesses surveyed by YouGov® cited the following as top future challenges:



The Future Skills League Table

Interviews with businesses and universities indicated over 20 critical skills that they felt were important in protecting the UK's global competitiveness. These were put to the YouGov Business panel, consisting of over 2000 top UK businesses, over half of which selected the top 10 skills shown on the right.

The responses show a great deal of consistency across sectors, geographies and age groups. Problem-solving/process skills are the single most important skill across all industries. Even when sector-specific skills are needed, problem solving/process skills still come top of the list. For example, for those in finance, financial literacy came above communication skills and creativity at 65%, but problem solving and process skills were at 73%. Communications skills ranked particularly highly for hospitality (72%), medical and health sciences (76%) and media, marketing and sales (70%) but problem solving still ranked higher – 74%, 82% and 78% respectively.



“**The UK is an unrivalled world leader in the creative industries, but international competitors are fast catching up.**”

Looking to the UK and recognising the economic benefits of creativity, countries such as China and Singapore are investing heavily in creative education. They do so in the recognition that it develops those attributes most in demand by businesses economy-wide: persistence, self-discipline, responsiveness, inventiveness and problem-solving. Unless the UK takes strategic action now, we risk a talent drain and loss of competitive advantage. Jobs in design and craft are among those most resistant to future automation.

Our future prosperity lies in the fusion of design, technology and enterprise: the UK could become ‘the Silicon Valley’ of physical and digital fabrication. The result? Improved productivity, high quality jobs and differentiation of UK output, enabling us to access new global markets and reap both social and economic benefits.

Annie Warburton
Chief Executive,
Cockpit Studios



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Top 10 Future Skills As chosen by business



Case study

TUCAN Studio: Teesside University

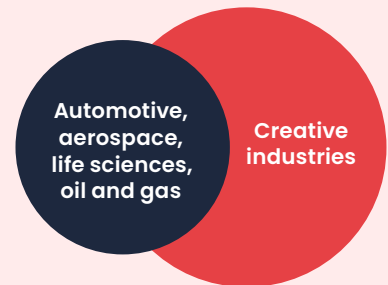
The TUCAN Studio was originally set up in 2017 to support Teesside University students and graduates gain experience of working on paid real-life commercial projects, and in particular, to broaden the application of creative digital skills by enabling students and graduates to work with sectors such as health, engineering, and the police.

TUCAN Studio brings multidisciplinary teams of graduates, academic staff, leading researchers and students together to collaborate on creating cutting edge creative digital solutions in the areas of animation, VR training, app development, AR and 360 degree video for and with industry partners – raising awareness of the possibilities in new sectors while driving innovation.

Working in partnership with the private and public sector, Teesside University's academic staff work alongside graduates to create R&D digital solutions for applications in health, and innovative solutions to training and education for a range of sectors such as the police and fire brigade, plus innovative animation to raise awareness of sensitive health issues.



In partnership with Cleveland Fire Brigade, TUCAN developed a bespoke virtual reality training module for fire commanders to enhance their life saving skills in the field. Using a combination of fresh graduate talent, academic expertise and cutting-edge technology the University and Cleveland Fire Brigade have now worked together for over four years. The module has become more and more specific and can now take the user to several different firefighting scenarios, adding the complexities of a live scenario.



£115.9bn GVA
contributed to the UK economy by creative industries, greater than the automotive, aerospace, life sciences and oil and gas industries combined

1 in 3
creative jobs are in sectors outside of the creative industries

5x
Creative industries were growing at 5x the rate of the UK economy



“**TikTok has become a creative outlet so many have turned to during the pandemic, from artists and performers who have been able to share their voice, to museums and theatres who have been able to engage with audiences globally through the TikTok Community; supporting the creative industries is more important now than ever before.**”

We have launched a number of initiatives to champion our creator community and worked with key partners across the creative industries to ensure the next generation of British talent continues to thrive; like the Evening Standard Future Theatre Fund, offering ten graduates and two TikTok breakout stars, a grant and mentoring to kick-start their career in the arts, and becoming the Principal partner for NEWGEN, the British Fashion Council's internationally celebrated talent programme.

We are delighted to be able to support the future of British creative talent through TikTok and inspire a new generation to follow in their footsteps.”

Rich Waterworth
General Manager,
TikTok, UK and Europe

Case study

Creative Industries Clusters

The Creative Industries Clusters Programme is an example of successful collaboration between industry, government and higher education. So far the £80 million investment has leveraged over £150 million from the private sector.

XR Stories, the R&D partnership for Yorkshire and Humber's Screen Industries, was set up in November 2018, along with seven other clusters across the UK, funded by the Arts and Humanities Research Council as part of the Industrial Strategy.

Since launch, XR Stories has delivered 60+ projects with 50 SMEs, two global media companies, eight universities and 52 academics. The investment in industry-led collaborative R&D has leveraged twice as much co-investment.

Case study

Design in an age of crisis

In 2021, Chatham House, an international think tank, and London Design Biennale partnered on an international open call, inviting radical thinking from the world's design community to tackle our current crises, including poor health, rapid transformations in the world of work, social inequality and the climate crisis.

Design in the Age of Crisis received over 500 submissions from more than 50 countries across six continents, the highlights of which are part of the London Design Biennale at Somerset House.

The Environment: Building Back Greener category called for a radical rethink of environments to be sustainable, just and resilient in the face of the shocks to come. Global warming is forcing us to adapt to a new world with longer and more intense heat waves. Traditional air conditioning systems contribute to climate change: the energy used for cooling Europe's cities has increased by 72% in the past 15 years. Sofie Ascham's submission, *Draft: Passive Home Cooling* offers a new approach that utilises natural materials, water, wind and evaporative cooling to reduce the indoor temperature. It is a sustainable alternative to traditional air conditioning, designed to be more suited to a home environment, less noisy and most importantly – kinder to the environment.





Case study

Deloitte Digital

At the beginning of the last decade, Deloitte identified that their clients needed to get ahead of the disruption that was being caused by companies who had design and customer-experience at their heart: brands like Amazon and Apple. It was no longer enough to get the numbers right and follow tried and tested processes.



To help their clients innovate successfully, Deloitte Digital brought creatives into the core of their business, growing a group of new talent to work alongside their team of business analysts and technology specialists. This was a wholesale strategy, which nurtured an environment in which creatives were valued alongside their more traditional Deloitte colleagues.

They found that creative input de-risked their clients' investments in online or mobile strategies, producing interfaces that not only worked well and delivered on financial objectives, but also were loved by the end user. The benefits of this approach were immediate and clear, multiplying sales and profit.

The creative team at Deloitte Digital has grown 20% per annum, now numbering around 250 people. Within that time, the company has grown nearly tenfold. Not only have the creatives added value to the business, they have also found that the professional development structure of Deloitte Digital has brought greater focus on formal career pathways than in a traditional design studio or advertising agency and helped them to achieve greater progression.



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Designers spend their lives solving problems. That’s what the job is all about. Through their education and training they learn creative, critical and practical skills.

‘I am not surprised that problem solving skills come top in this survey. Employers really need people with them, but don’t we all love problem solvers, those creative, positive people who change things for the better by coming up with the answers? I am surprised though, at the UK’s general lack of recognition for the people who are specially trained and encouraged to be brilliant problem solvers – designers. We have some of the best in the world, trained at some of the best universities and colleges in the world.

Designers spend their lives solving problems. That’s what the job is all about. Through their education and training they learn creative, critical and practical skills.

Designers have to develop a rare combination of intuitive and analytical thinking in order to solve the problems facing their employers and clients. If you are a product or engineering designer you might be given the problem of creating a better functioning car, kettle, chair, train or phone. If you are an architect you are constantly faced with new problems to solve concerning the environment, sustainability, climate change and societal shifts.

Or you might be confronted with the urgent need to design emergency shelters in the wake of an earthquake or new medical equipment in a Pandemic. As a graphic or digital designer you could be commissioned to unravel a particularly complex communications issue and in transport design you might have to grapple with the problems of a massive infrastructure project.

Designers are great to work with because they are always positive about finding a way forward in the most difficult situations. They can apply their specially tuned way of thinking to every sector of business and industry and add value wherever they work. Design is at the heart of the UK’s world class creative industries sector which, before the Pandemic, was contributing over £100billion per annum to the economy and is a key ingredient in Britain’s soft power strategy when trading and exporting to the world. It’s time we recognised the contribution designers make to our country and properly invest in the next generation.’

Sir John Sorrell CBE
Designer and UK Business
Ambassador

Case study

Saturday Clubs

The world of work is rapidly changing. This generation will encounter global challenges, which require innovative thinking and versatile skills. Young people's career prospects in regions across the UK will demand creative capacities such as imagination, inquisitiveness, collaboration, persistence and discipline.



© Saturday Club Trust

From Truro to Hartlepool, the National Saturday Club is raising aspirations for the next generation of creative thinkers by offering 13–16-year-olds the opportunity to study subjects they love for free, at their local university, college, or cultural institution. The programme inspires young people, builds their skills and broadens their understanding of the breadth of possible future study and career pathways open to them. Across five dynamic, year-long programmes – Art and Design, Fashion and Business, Film and Media, Science and Engineering and Writing and Talking – subject strands provide opportunities for young people to develop and gain vital skills employers desire, and support regional upskilling and the government's manifesto commitment to levelling-up.

Since 2009 over 10,000 young people and 1,268 educators from 86 institutions have taken part. The National Saturday Club programme is free and has no exams, reducing barriers to young people attending, particularly those from under-represented backgrounds and disadvantaged communities. 60% of young people attending the programme are from widening participation (WP) backgrounds (BAME, first-generation HE, disabled, experience of care, free school meals) and of those 60% do not take part in any other extra-curricular activities (16% more than other groups).

Since 2009 over 10,000 young people and 1,268 educators from 86 institutions have taken part.

The National Saturday Club programme is growing, offering increasing numbers of young people the opportunity to take part. Its unique partnership model knits together young people with local FE and HE institutions, cultural organisations, schools, industry and individual practitioners. It has become a pivotal part of local and national learning ecologies, empowering young people to develop new skills, gain practical experience and become self-confident creative thinkers, with the ability to express their ideas.

Skills for Innovation

A campaign to boost UK competitive advantage in a changing world economy

The UK faces an historic challenge and opportunity: to emerge from this pandemic a stronger and fairer society with a more dynamic enterprise economy. A country filled with industry and inspiration.

The government has made Innovation a pillar of its new industrial strategy in the 'Plan for Growth'. Alongside investment in skills and infrastructure there is a commitment to:

“Support and incentivise the development of the creative ideas and technologies that will shape the UK’s future high-growth, sustainable and secure economy.”

Kingston University’s ‘Future Skills League Table’ tells us what 2,000 employers across a range of sectors say are the skills they need to meet this objective – to keep the UK globally competitive for the future.

Problem solving skills are #1 for all sectors. The top 10 priority skills tell us that business is looking for a real mix of logical, social, creative, intuitive as well as analytical thinking abilities. We define this portfolio as ‘Skills for Innovation’.



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These ‘Skills for Innovation’ will drive creative ideas, technologies and secure our economy in an environment where businesses tell us the #1 threat is competition from emerging economies (e.g. China, Singapore, South Korea).

They are the skills taught on creative industry degrees in design, crafts, film production and games design, and which are also resistant to automation (one of the challenges to future success identified by employers). They are the skills that will deliver innovation in sectors from green energy to video games and will enable disruptive, entrepreneurial businesses to thrive.

To boost these skills across all parts of the UK is a team effort. One that can only be tackled by strong and active government embracing the instincts of the private sector and working with higher and further education providers to ensure a pipeline of home-grown talent.



We call on

Government to...

- **Invest in the skills for innovation** the UK needs to support its future competitive advantage
- Department for Business, Energy and Industrial Strategy to convene key government departments ahead of the CSR to **promote the skills for innovation we need to build back better**
- Department for Education (working with its equivalents in the devolved nations) to **develop a Creative and Innovation Skills Strategy** that identifies and promotes strategically important creative subjects and skills that businesses want
- Department for Digital, Culture, Media and Sport to continue to **support the Creative Careers Programme**, and develop programmes in government to embed creative skills across departments

Sector regulators to...

- **Define high value degrees by the skills for innovation** students acquire and businesses say they want
- **Incentivise and reward** provision of strategically important creative subjects that align with business skills needs
- **Develop a start-up metric that recognises skills for innovation** rather than limited salary data that does not support entrepreneurship, start-ups or future skills

Universities to...

- **Promote skills for innovation which are high value** across their subject portfolios
- **Embed business and entrepreneurial skills** in creative degree curricula
- **Entrench multi-faculty consultancy** across the curriculum
- **Work with employers to deliver career opportunities** that foster future-facing skills
- **Build partnerships with employers to foster creative approaches to problem solving**, from hackathons to short courses and micro-credentials

Employers to...

- **Recruit and reward applicants with the skills that are the foundation of the UK's competitiveness**; the skills that drive the creative ideas and technologies that will shape the UK's high-growth, sustainable and secure economy
- **Develop graduate recruitment programmes with local and regional Higher Education Institutions** to acquire graduates with the skills that drive innovation
- **Engage with opportunities to build future skills**, such as the Department for Education's Bootcamps

Case study

Chip[s] Board®: Kingston University

Chip[s] Board's® philosophy is that a circular economy within waste (by-product) management and material production will create a new sustainable model, utilising the abundant resources we currently have rather than continuing to process virgin materials.

The business, created by Kingston School of Art design graduates Rowan Minkley and Rob Nicoll, won top honours at the Santander Entrepreneurship Awards, landing £25,000 of seed funding to help grow their operations. Founded as part of their final project when studying at Kingston School of Art, Chip[s] Board® was driven by a desire to create an impactful product from waste materials.

Chip[s] Board® have developed a range of innovative and sustainable circular economy materials using potato waste, and gets its supplies from businesses like McCain who see the appeal of their waste being turned into something highly sustainable.



They have also developed Parblex™ Plastics, a range of translucent pure or fibre reinforced bioplastics with incredible surface finish and durability for fashion and interior design.

In the space of a year, Chip[s] Board® had celebrated its first birthday, completed its first round of investment, and moved into a new home in Shepherd's Bush Market which is a space dedicated to bio-based companies. They now have a team which includes a biochemist, polymer chemist and chemical engineer.

Rob and Rowan hope they can make a real impact on the world, and they want Chip[s] Board® to inspire more young people to find creative solutions to issues affecting the world.

Chip[s] Board® has won a Creative Conscience gold award, the July Shell LiveWIRE competition and the product has been exhibited in Los Angeles and featured on a BBC4 TV show.

Since the awards were first launched, Santander Universities has funded more than £420,000 in support for budding student entrepreneurs, offering universities the chance to showcase entrepreneurial talent from across the UK. Kingston University has also received more than £500,000 towards various projects including internships, supporting entrepreneurial endeavour around the University and a Hack Centre.

Get in touch

To find out more or get involved, contact:

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