Are the Creative Industries of Strategic Importance to the UK Economy or not? Reflecting on the future shape of Creative Higher Education to support Economic Needs

The Government has set out its future policy priorities in its Build Back Better Plan for Growth. This seeks to drive sustainable long-term economic growth. It includes the intention to develop sector visions, which enhance the support for sectors of existing strength in the UK economy. In this context, the Creative Industries have been identified as a key priority sector. Skills are one of three investment pillars in the Plan and hence a crucial area for such support. Yet, at the same time, as we approach the autumn spending review in 2021, there is an increasing threat of cuts in future funding to creative Higher Education (HE), driving reforms within education that could be detrimental to the Creative Sector. With significant national debt, the costs of HE to the Exchequer are being more heavily scrutinised, especially since changes in the accounting rules for student loans have highlighted the risks of non-repayment. Public subsidies, which have driven expansionary HE targets of the past are no longer being wholeheartedly supported. The Department for Education (DfE), instead, has identified subjects of "Strategic Importance," where it is considering prioritising funding and policy interventions in, HE in future. To date, while the Creative Industries are a priority economic sector, many creative HE courses have been deprioritised, which threatens the future talent pipeline. A range of options are being considered to control "low value" courses and debt: differential tuition-fees; a cap on student numbers; and minimum entry qualifications, to name a few. The Creative Industries Policy and Evidence Centre (PEC) seeks to influence current policy debates, drawing on the evidence base. It has been progressing work in partnership with stakeholders and Government to understand the most pressing employment and skills requirements facing the UK Creative Economy,[1] and how they should be met to ensure its future success. This evidence shows that over 9 out of ten creative workers are highly skilled in the Creative Industries and nearly 3/4s hold degrees or higher degrees – compared to only 44% for all industries. Furthermore, we have found that creative HE courses are giving graduates the skills they need to gain employment in the roles they want: there are high degrees of matching between creative graduates and creative jobs, with for example 82% of creative graduates in design subjects, 78% of creative graduates in *Music, performing & visual arts* subjects and 75% of creative graduates in Architecture working in related creative industries. Further, 73% took their job because it was the type of role they wanted to do - this compares with only 66 per cent of non-creative graduates. This paper offers insights for objectively assessing Strategic Importance. Whilst the aim is not to conduct the full assessment on behalf of Government at this stage, it does seek to constructively shape the assessment process the Government takes forward, and future policy decisions about the kind of creative HE the Creative Industries need in the years ahead.

Introduction

As the UK emerges from the Covid-19 pandemic, the Government is faced with important policy decisions about where and how to direct future interventions and funding. One area where this has particularly sparked policy debates is around the future of education as a key driver of innovation and economic growth. With this has come a growing interest in the role of education in supporting people to refresh their skills throughout their lives as a means not only to get into work, but crucially, to get on in the labour market, and hence to progress in the modern world. Such debates have placed a spotlight on higher education (HE) and revisiting its position in the education pathway. Indeed, there is interest in how it is supporting "habits" for lifelong learning, alongside early years schooling and further education, as well as wider traits for entrepreneurialism and innovation. In its Plan for Growth, the Government sets out its policy priorities. These seek not only to kick start recovery, but to ensure a more sustainable long-term growth. Ideally, their actions aim to support sectors of existing strength in the UK economy enabling them to flourish, such as the Creative Industries.

…*"The Digital and Creative Industry sectors are a major success story for the UK, and a critical driver of innovation and growth. We will work to ensure that these sectors can flourish…"* (Plan for Growth, 2021, p55)

Given that a highly skilled workforce has been so important to the past success of the Creative Industries in the UK, such concerns are central to the priorities of the Creative Industries Policy and Evidence Centre (PEC). As such, the Centre has developed a strand of work around skills, talent and diversity, exploring the basis to enhance the sector's future workforce and performance. The PEC has been progressing work in partnership with stakeholders and Government to understand the most pressing employment and skills requirements facing the Creative Economy in the UK, now and in the future, and, relatedly, what kind of education and skills system is needed to meet these needs in the years ahead. So, what are some of the key HE challenges that we have to resolve if we are to ensure the Plan for Growth's future vision for economic success ?

[1] The Creative Economy includes the Creative Industries and people working in creative roles in other industries.

Time to repurpose education for the future?

The impact of the pandemic has clearly been huge, socially, economically and culturally. But its effects have arguably been harder felt coming on the back of waves of broader disruption, over the last decade or so, due to events such as the financial crisis and Brexit, and longer running global drivers of change. International trends driven by technological advances and innovations in ways of working, rapid rates of globalisation, alongside significant demographic, and climate change, to name a few, are dramatically transforming workplaces and employment and skills requirements. These have already fundamentally restructured the UK economy over decades and are substantially evolving our understanding of the future of work. In charting the way ahead for education and skills, as well as wider policies, it is thus vital that we sufficiently take stock of these broader labour market developments. This is key to ensure we adequately prepare for long-term challenges on the horizon, and that actions are sufficiently *"future-proofed"*.

With that in mind, significant questions are being raised about the purpose of national education systems in future and the role they should play. International thought leaders have highlighted the global risks of retaining the relevance and currency of education provision in the future in an increasingly dynamic and changing economy. A crucial priority has become how to inspire and support lifelong learning for all, while maintaining high-quality, and sustainable funding, where all those who benefit make a fair contribution.

One reading of such developments might be that the Government presses harder on the accelerator for those sectors, which have already proved to be so worthwhile to the UK economy prior to the pandemic - future skills investments in these sectors could support a quicker return to innovation, recovery, and long-term growth. In an economy, increasingly seeing a fusion of technologies, ways of working and employment and skills requirements, this will need to see more sectors working closer together. This might include in areas such as the Creative Industries and the Digital sector, Financial services and Fintech, Advanced Manufacturing, Construction and the Green Economy, and Health and Life sciences, to name a few. Equally, this means acknowledging that individuals in the future workforce will require a *blend of 'STEAM' skills* to progress: that is science, technology, engineering and mathematics, combining with 'arts', creativity and design skills.

In that context, the Government has been revealing, over the last 6 months or so, more of its long-term ambitions, including in reforming the skills system in a modern economy. We have seen a plethora of education policy developments in England, on the back of a raft of strategic reviews and consultations (including by Augar, Pearce, the Economic Affairs Committee and the Independent College of the Future), wrestling with the need to secure high-quality provision alongside value for money.

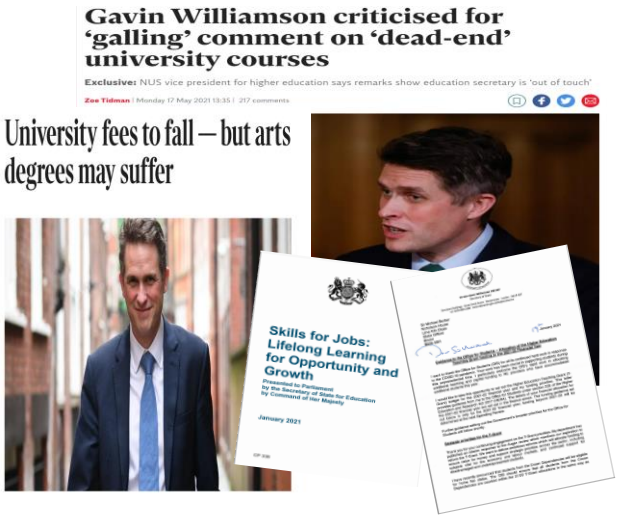
An all age skills strategy, supporting lifelong learning has started to evolve. There have been calls for: more industry engagement, especially to shape stronger technical education pathways that can meet economic needs; a greater balance across the education pipeline between FE and HE; and the means to broaden access ensuring sufficient opportunities for disadvantaged and underrepresented individuals. In part this is about changing funding options to incentivise more learning seen, for example, with the introduction of the publicly funded Level 3 Lifetime Skills Guarantee and the Lifelong Loan Entitlement from 2025. These aim to expand the flexibility of entitlements to support more atypical, part-time, and episodic periods of learning in a dynamic future world of work. But, it's also about developing wider options to progress through post-16 education, extending what's available at Levels 4 and 5, especially through industry-led technical education, and the Institutes of Technology programme, and therefore seeking more diversification around the core HE 3-year degree model (at Level 6 and above).

Will a more differentiated HE strategy help?

As we progress to the autumn spending review in 2021, with a huge and growing national debt, since the Covid-19 pandemic, it is no surprise that many negotiations have placed a significant focus on funding. This is especially within HE, where changes to the accounting rules for student loans have made the public subsidies exposed to longer term write offs much more visible.[2] Consequently, expensive, blanket subsidies of the past, offered widely to all HE courses and institutions are unlikely to continue. These supported the previous objectives to expand the sector, seeking to send at least half of all young people to HE.

[2] Current estimates suggest only 12% of graduates are expected to repay their loans in full, while 33% are expected to default on the total amount. After 30 years the debt is then written off.

In that context the Secretary of State for Education has: opposed this 50% HE target; criticised what he sees as *'dead-end courses that leave young people with nothing but debt'*; and started to review the finance system, including exploring potential reductions in tuition fees and changing the repayment terms for student loans.



As the Government pushes for an increasingly differentiated, HE investment plan, it would like to direct more funding in the future towards *strategic priorities*. More specifically, the DfE aims to target support to courses it perceives to be vital to the economy and hence in high demand amongst employers. As a result, it has already started to identify *subjects of Strategic Importance* it aims to prioritise.[3] This includes STEM and healthcare subjects. It is stated that these areas have been vital in the delivery of public services, especially during the pandemic, as well as maintaining the UK's position as a leader in science and innovation.

However, a key concern for different parts of the Creative Industries is the fact that the DfE, has indiscriminately, *excluded* art, design and wider creative subjects.[4] This proposed course of action is hard to understand given the economic importance of the Creative Industries as set out in the Government's Plan for Growth and with the focus on skills as one of three *investment pillars* to support priority sectors. The absence of a transparent assessment framework, clarifying how Strategic Importance has been derived adds to this confusion and raises concerns about fairness around the decision. As further policy developments are announced, which illustrate the implications, opening-up opportunities for strategically important subjects, and limiting the possibilities for others, this can only heighten concerns for creative areas.

For instance, following the Office for Students' (OfS) consultation, which the DfE initiated earlier in 2021, on proposed reforms to the distribution of the recurrent teaching grant for 2021-22, the Government has already endorsed the introduction of a 50% reduction in the grant to those high cost courses that are no longer considered strategically important - such as in creative subjects. Relatedly, it is exploring the feasibility of targeting a range of wider options to the prioritised courses. This could include: lowering tuition fees / loans; and/or imposing more controls on student numbers via new student number caps or minimum entry standards.

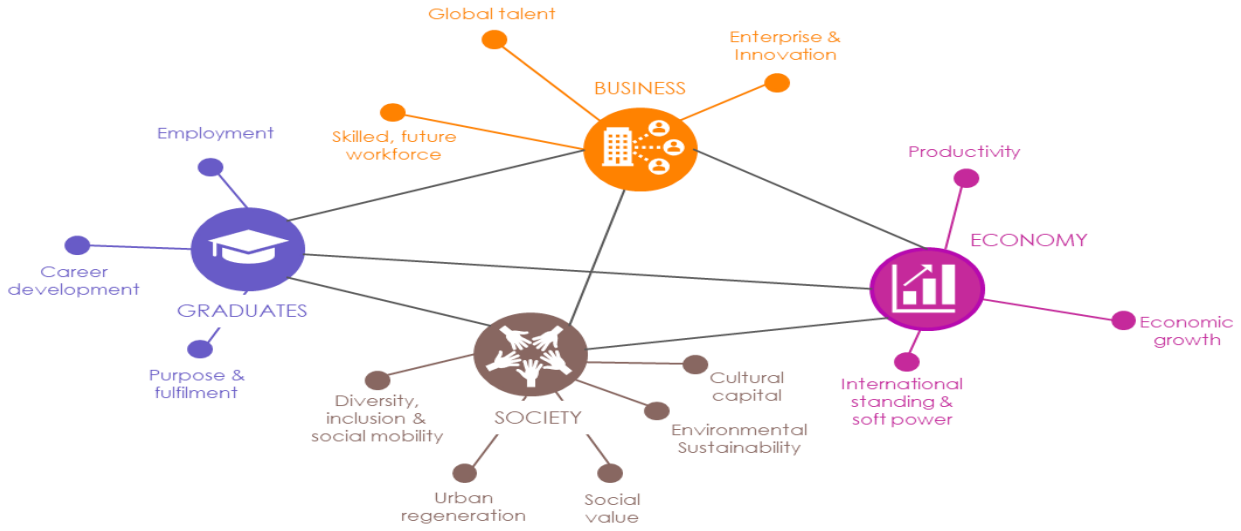
It seems a system of prioritisation is attracting increasing support within the DfE to provide the basis to identify areas to drive future improvements in HE courses and repurpose the HE sector more broadly. Depending on how this is managed, it could severely limit the ability of providers to modernise and diversify de-prioritised provision such as in creative subjects. A more recent policy development provides confirmation of this risk, in the form of the latest HE Challenge Competition. This is inviting bids for £2m of public funding to develop and trial shorter, more flexible HE short courses at Levels 4-6, but only in the Government's priority areas. If such developments are expanded and continue to be targeted to strategically important areas alone, they could considerably diminish the potential to reform and future-proof the education offer more generally. Where wider recommendations, such as those of Augar, are to be pursued, this highlights the further scale of the problem.

For instance, Augar's proposed system of *"kite-marking"* offered much potential to update HE provision. Under such a scheme, he suggested industry might become more involved in redesigning education programmes and the quality assurance of content and standards, endorsing programmes and qualifications, and testing more flexible and varied delivery models. This could build on the Degree Apprenticeships, offering a wider skills portfolio within the skills system, blending short training modules with fuller programmes of longer duration, yet with the ability to tailor options to varying needs. As such, it could become a key strand of the future HE reform programme in its own right; to raise standards and enhance industry relevance. These developments offer many advantages, providing a more systematic approach to securing improvements and emulating the piloting

[3] For example see the strategic guidance from the DfE to the OfS in January regarding the teaching grant here

[4] See for example the OfS' recent consultation on recurrent funding for 2021/22 here

Figure 1: A conceptual framework of the benefits of HE



approach seen in other parts of the post-16 skills system (such as around the Skills Accelerator Fund and Flexi-job Apprenticeship Fund). However, if the opportunities remain tightly restricted to a narrow range of priority subjects, not clearly determined, this could severely constrain the full potential of the reforms.

Of course, with future participation levels in HE heavily dependent on what policy decisions the DfE imminently takes, it is crucial that the Government thinks through carefully its policy intentions. This is not least around assessments of Strategic Importance and which subjects are finally selected as priorities for future investment and intervention, if that is indeed the long-term path it takes. In a post-pandemic and post-Brexit world, seismic changes are already being felt by every industry, including growth sectors such as the Creative Industries. In a broader context in which education is at the heart of the Government's Levelling Up agenda, and lifelong learning is increasingly important, not only to enable people to advance at work, but to support those sectors rebuilding, such policy changes must be increasingly scrutinised and fully tested. Indeed, this is vital to avoid the unintended consequences of funding cuts that risk being too blunt and/or widespread, with likely serious social as well as economic effects, to sectors already facing skills deficiencies and performance challenges.

Given such developments, the PEC has been reflecting on the means to review objectively the Strategic Importance of different sectors across the UK economy. Its aims are to start to consider the implications this raises specifically for the Creative Industries, and what kind of HE its sub-sectors need. But the overall framework can of course be applied to wider priority sectors. *Our intention is to assist the PEC to work with creative stakeholders moving forward to constructively contribute to current policy debates within Government, and hence shape the nature of HE – especially creative HE*.

A balanced way forward to assess Strategic Importance?

We start by examining the available evidence that could be deployed around assessing the significance of sectors in the economy and the benefits of HE in supporting those sectors, drawing on some of the key authoritative and seminal sources in this area.[5] The purpose of this first stage of the assessment is to inform the different domains of how a *conceptual framework* of strategic importance might be objectively determined. This helps to show that HE leads to some very important, benefits, and, most crucially, these operate on multiple levels, bringing potential advantages and gains to individuals, businesses, the wider economy and society at large (see Figure 1).

For example, for individual **Graduates** HE is vital not only in securing more rewarding careers in highly skilled graduate employment, and with higher earnings, but paving the way for a wider range of life experiences and skills. Indeed, HE can enrich people's lives, improving long-term life expectancy, life satisfaction and health and well-being, for example.

For **Businesses**, HE too is about the provision of a suitably skilled workforce, which is more resourceful, entrepreneurial, and able to respond to change. But HE also supports R&D and innovation, and through that better management

[5] These have informed the focus of the OfS Strategy; and reference important recent reviews such as the Augar and the Pearce Reviews in the UK and the OECD review of HE mentioned earlier.

and commercial ideas highly trained leaders, global talent, and entrepreneurship.

For **Economies**, HEIs can raise skills and innovation levels and enterprise in scale, by working through business networks and their supply chains, supporting investments in business development, new products and services, technological adoption, training, and such like. Indeed, engagement with business communities encourages the exchange of knowledge, ideas, culture, and creativity, between as well as with in individual companies. Such activities enhance scholarship and debate and drive continuous improvement and smarter working, seeking to raise the general platform of performance across those communities. Business partnerships with HEIs can, therefore, provide the "know-how" to secure productivity-enhancing practices and better workplace performance that sustains enriches business communities over time.

For **Society**, HEIs seek to understand and address societal challenges and inequalities. HE connects to and supports economic, educational, social and hence civic needs of the local and national communities it serves. Through such connections it can provide a means to secure improvements in social mobility, social engagement, and social cohesion. This in turn, drives better health, wellbeing and community stability, more environmental awareness and supports urban regeneration and more sustainable prosperity. Having set out the conceptual parameters for the analysis, *consideration can then be given to how to practically take it forward*.

Building the framework - sound working principles?

In developing an analytical approach for objectively reviewing Strategic Importance, we recommend setting out at the outset core working principles to guide the assessment process so that the methods are transparent and working assumptions are clear and defensible. This should provide the basis to build trust, test and refine the approach, and hence to embed high-quality standards and working methods, to ensure efficiency and effectiveness in line with other parts of the skills system. This is particularly important in the light of such vital funding and policy decisions it is likely to shape. We have reflected on a few design considerations, not least the approach should:

- Reflect the Government's brief. Given the focus on "*priorities of the nation, specific labour market needs, and good highly skilled job outcomes*", the process should be demonstrably driven by rigorous *labour market analysis*.
- Align, and integrate, with, existing labour market information (LMI) and skills analysis tools such as those already used by the DfE for the local skills assessments conducted by the Skills and Productivity Board and associated local network of Skills Advisory Panels. These are currently deployed to assess skill priorities in the labour market nationally and sub-nationally and hence different parts of the skills system - thus supporting progression pathways in the broader post-16 system. They also build on previous best practice LMI toolkits.[6]
- Be objective, drawing upon high quality and robust data and LMI, especially those funded by Government and adhering to data quality standards set by the Office for National Statistics – this will not only ensure greater reliability but consistency over time and will allow comparisons and benchmarking at different levels of detail by varying sectors, jobs and regions within the economy.
- Give sufficient weight to qualitative narrative statements, especially where concepts are hard to measure quantitatively but impacts and insights are still important to capture. This can be achieved through richer, more granular information to enhance prioritisation in the assessment process (eg contextual/occupational case studies/institutionally determined evidence as already used in the HE performance frameworks such as the Teaching Excellence Framework).

We have then explored the feasibility of populating the framework, using existing labour market sources – Figure 2 below. Some domains are currently hard to quantify, and will require further research to fill evidence gaps (in areas such as assessing the public and cultural value[7]). That said, a wide range of metrics do already exist that can be used to ensure a robust, transparent and a more rounded approach takes place. These offer much potential in determining Strategic Importance and value, capturing a diverse and multi-dimensional perspective, with social as well as economic domains, covering business skills demands as well as skills supply. They also include measures of the future as well as current demands, so that early actions can be taken to anticipate and prepare for what's to come and "the unexpected".

[6] For example, see the UK Commission for Employment and Skills (2011) The Common LMI framework for Sector Skills Councils. Information to Intelligence.

[7] See for example the DCMS's Culture and Heritage Capital Framework here

Figure 2: Provisional indicators from current data sources[8]

BUSINESS

Domain	Indicator	Source
Skilled, future, workforce	% of workers in jobs that are highly skilled (SOC 1-3 & Self-Employed (S/E)	LFS
	% of workers in destination occupation (SOC & Self-Employed) that hold a degree-level qualification	LFS
	% change in employment in destination occupation (SOC & S/E) over the past decade	LFS
	% change in workforce holding degree-level qualifications in destination sector (SIC)	LFS
	Gross mean / median weekly/hourly earnings in destination occupation (SOC)	ASHE
	% change in enrolments (UG/PG) over the past decade	HESA
	% change in vacancies in destination occupations over the past decade	MAC
	% graduates in destination occupations on the MAC Shortage Occupation List	MAC
	Skills shortage intensity in destination occupations (SOC)	ESS
	Forecast employment growth in destination sector of employment	WF
	Probability of automation of destination occupation of employment (SOC)	GO / ONS
	Projected job openings over the next decade (expansion & replacement demand)	WF
Global talent	% enrolments by international students	HESA
	% graduates employed overseas	GO
	Export propensity (TBC?) of destination sector of employment	GO / BEIS
Enterprise & innovation	% graduates running their own business	GO
	Innovation intensity (TBC?) of destination sector of employment	GO / UKIS

GRADUATES

Domain	Indicator	Source
Good-quality, graduate-level, employment	% graduates in employment (FT / PT / Self-Employed)	GOS
	% graduates employed in managerial & professional employment (SOC 1-3)	GOS
	% graduates in jobs they perceive their qualification was required to get the job (level & subject of study)	GOS
	% graduates utilising what they learnt in current work / activity	GOS
	Average annual pay of newly employed graduates (employed only)	GOS
	% graduates with supervisory responsibility	GOS
Supporting long-term career aspirations	% graduates motivated by desire / interests rather than necessity	GOS
	% agree that current work activity fits with future plans	GOS
	% working in job or activity where the main reason was it fitted with career plan / exactly type of work wanted	GOS
	% developing creative, artistic or professional portfolio	GOS
	% in further study, training or research	GOS
	% in post-graduate (inc. higher degree, PG dip/cert. Professional qualification) study, training or research	GOS
	% who would be unlikely to do a different subject	GOS
Provide meaning & purpose, and support wellbeing	% graduates motivated by desire / interests rather than necessity	GOS
	% agree current work / study / activity is meaningful	GOS
	Wellbeing scores (four domains: life satisfactions; life worthwhile; anxiety; happiness)	GOS

Reflecting on the metrics also highlights the current deficiency of the HE performance measures used by the Government and its agencies in the HE system, in, for instance its Regulatory and Teaching Excellence Frameworks. Indeed, existing metrics tend to focus on a narrow range of *short-term graduate indicators* around for example *graduate employment, progression and earnings*, and, even then, there is a further risk that different measures are not given the appropriate weighting in the assessment.

As the conceptual framework illustrates, therefore, measures that are too narrowly defined fail to offer a more holistic and balanced perspective on the economic, social and cultural value of HE: for graduates, business, the economy and society. In addition, they capture only part of the domain on Good-quality, graduate-level, employment illustrated in Figure 2. There are further issues too, where a disproportionate weight is then applied to certain indicators, such as salary, in assessing value over others to make policy decisions. Not only is salary an inadequate sole measure, but there are problems with relying too heavily on any single source. This is highlighted with the focus on data from the Longitudinal Education Outcomes (LEO) dataset used to assess the value of education to employers, using earnings data of those in work. This has clearly heavily influenced the insights of the DfE around assessments of value to date within HE. While the work of the IFS has shown the potential of the dataset, highlighting variations in wage returns by different types of course and HEI, there are significant limitations. Data are still "experimental" and as such are being continually improved. Further, the dataset does not sufficiently capture the whole graduate population (eg the self-employed, international workers) and/or enable further exploratory analysis to understand what might be driving variations in salaries in different types of employment for example. The limitations to the sample and additional analysis are particularly problematic in areas such as the Creative Industries, given the higher levels of diverse and atypical employment.[9]

Care is therefore needed in the policy applications. Indeed, the IFS itself points to a need for caution. For instance, more detailed analysis it has just released, suggests there is a lot of variation in returns within broad subject areas, including STEM. This especially guards therefore against wide blanket policy responses on the back of average results, such as those universally backing pro-STEM agendas. *We have sought to stimulate interest in developing a broader assessment framework for Strategic Importance by taking a closer look at some of the existing LMI. This seeks to "bring the potential assessment to life".*

What does an initial assessment of Strategic Importance reveal?

First, we have analysed some of the key **business metrics** from national sources to begin to understand the Strategic Importance of the UK's Creative Industries to the UK economy. We find that the sector makes a significant contribution. This is in terms of, for example, output and

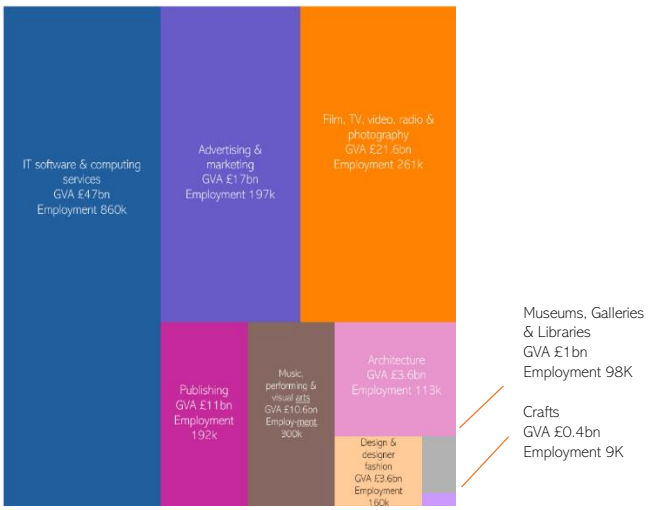
[8] Notes: LFS Labour Force Survey; ASHE Annual Survey of Hours & Earnings; Higher Education Statistics Agency; MAC Migration Advisory Committee; GOS Graduate Outcome Survey; WF DfE Working Futures; ESS DfE Employer Skills Survey; UKIS UK Innovation Survey

[9] See for example the assessment of Universities UK

employment. Over the last two decades the Creative Industries, covering a blend of diverse sectors including Film, TV, Music, Fashion and Design, Arts, Architecture, Publishing, Advertising, IT, Video games and Crafts, have made a substantial and sustained contribution to the UK economy. In 2019, *the sector contributed over £115.9bn in Gross Value Added (GVA) and employed 2.1 million people* – some 6.3% of the economy[10]. When accounting for those working in creative roles outside of the sector, the Creative Economy encompasses some 3 million workers.

Dynamic, innovative, and globally focused, the Creative Industries are one of the UK's greatest success stories, with economic growth increasing at double the rate of the rest of the economy and with employment having grown at roughly three times the national average over the past decade. This is in no small part due to the talents of a highly skilled and specialised creative workforce in the UK and a growing call for creative skills. As Sir Peter Bazalgette stated in his independent review of the sector for Government, "It is human creativity that drives the success of this sector".

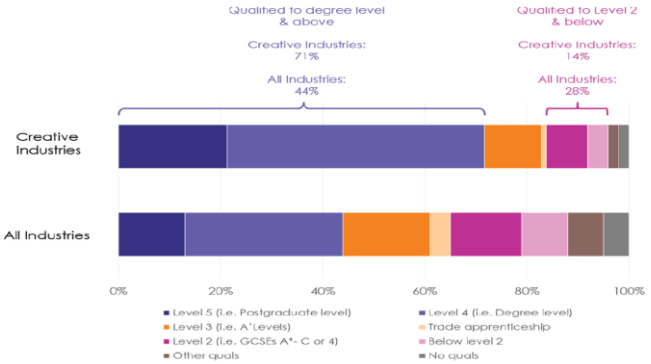
Figure 3: Creative Industries Economic contribution



Source: DCMS estimates 2020 here

Demand for higher level skills is substantially higher in creative occupations than in the economy overall. According to the Labour Force Survey, three 'higher level occupations', often referred to as areas of graduate employment, (ie Managers, directors and senior officials; Professional occupations; and Associate professional and technical occupations) account for 83% of Creative Industries employment, compared with 46% across the UK workforce more generally. If we just focus on *creative occupations 95% are within 'higher level occupations'*. Further, creative workers are highly qualified. Indeed, 71% of the workforce holds a qualification to degree level or higher compared with 44% for the whole economy.

Figure 4: Creative Industries workforce qualifications



Source: PEC (2020) Creative Skills Monitor 2020, based on LFS

While the Creative Industries have a lot in common at a headline level, this conceals much sub-sector diversity. Indeed, a *key driver of success, is also their underlying heterogeneity*, fuelling dynamism and growth, especially in the workforce, with varied industry models, and atypical and diverse project-based, working patterns. We see this in the diversity of the geographical footprint of the sector.[11] The growth of the Creative Industries nationally conceals a sector footprint that is *heavily regionally specialised and concentrated*. Any future assessment of priorities therefore needs to take account of variations in local economies.

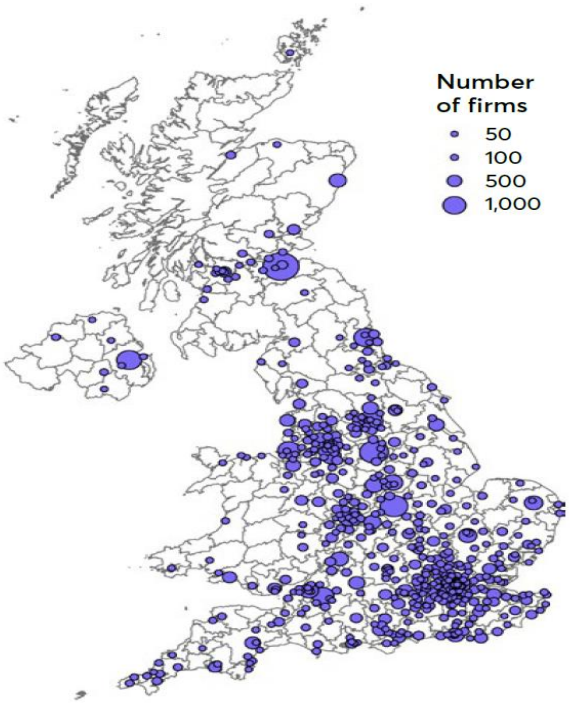
An analysis of the Labour Force Survey shows the Creative Industries are most prominent in London and the South-East, and urban clusters, including Manchester, Bristol, Cardiff, Edinburgh and Glasgow.[12] These more mature sites have become further specialised over the past 20 years and provide support for strong place-based policies of the sought outlined in the Plan for Growth. This suggests agglomeration and co-location really matter in strengthening local assets, innovation and leveraging the benefits from *a critical mass of businesses, workers, and institutions in the local infrastructure*. It also raises a vital role for key anchor institutions locally in future, like universities, that can support skills enhancement, innovation, and knowledge exchange, to grow the capacity and performance of local ecosystems.

More focused work in the PEC has identified the existence of 709 micro-clusters beyond the well-

[10] DCMS Statistics 2020 The PEC uses the DCMS methodology for sub-sector estimates to address issues of robustness and small sample sizes.
[11] As highlighted for example by Andy Haldane. His analysis of economic growth and complexity derived through a complexity index has underlined the importance of industry diversity & specialisation to growth - 8 out of the top 20 most complex UK Industries identified for sector deals were Creative Industries here
[12] PEC (2019) Mind the gap: regional inequalities

known regional clusters, especially given the prominence of micro-businesses operating in the sector. This highlights greater creative and cultural capacity regionally and points to further opportunities to support creative businesses to grow in future as the next phase of policy reforms come into operation - such as through devolution and the Levelling Up agenda. It further underlines the importance of sub-national analysis in any assessment framework.

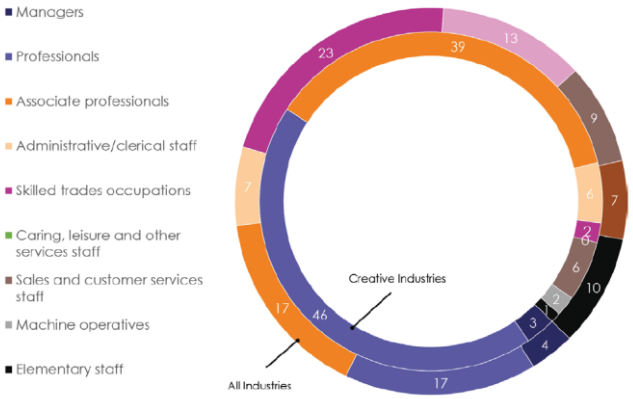
Figure 5: Creative micro-clusters across the UK



Source: PEC 2020 Creative Radar

The heterogeneity of the Creative Industries is also illustrated when considering the workforce composition and nature of employment in different sub-sectors, again using the Government's Labour Force Survey. At a headline level, all the sub-sectors require highly skilled workers. Indeed, *ICT* (93%) and *Music and the performing and visual arts* (85%) have the most highly skilled workforces, with other areas being close to the average - *Advertising* (81%), *Design* (72%), *Film and tv* (77%), and *Publishing* (82%). That said, the overall distribution masks significant sub-sector differences. So, we find that highly skilled professionals in *IT* include Programmers & Software development professionals (23%), IT business analysts, Architects and Systems designers (6%). These contrast with the highly skilled roles found in *Film and tv* such as Photographers, AV & broadcasting equipment operators (20%) and Arts officers, Producers & Directors (17%). In turn, in *Music and the arts* the skilled roles we see include Artists (15%), Musicians (13%), Authors, writers & translators & Actors, Entertainers and Presenters. Understanding and meeting these changing, and varying, sub-sector employment and skills requirements, will be key functions for skills institutions, supporting future success and growth.

Figure 6: Skills shortage vacancies by occupation



Source: UK Employer Skills Survey 2017

Furthermore, the heterogeneity is also a feature of the pattern of skills deficiencies. Here, we use the DfE's UK Employer Skills Survey, which is regularly analysed as part of the Government backed Migration Advisory Committee's Skills Shortages List.

Whilst most skills shortages are found in high-skilled roles (ie 46% affect Professionals & 39% Associate professionals), mirroring the overall workforce profile, detailed skills deficiencies vary by sub-sector. In particular, shortages are stronger in the *ICT and digital sector* and *Games, Film and tv* (including VFX and Animation), *Architecture*, *Design* and parts of the *Performing and visual arts*. The pattern of deficiencies for jobs reflects this sectoral pattern, affecting: *Designers* (including games designers, UX and VFX Designers and web designers); *Artists* (capturing Technical artists, 3D artists, animators, VFX artists, Character artist, Lighting artist and storyboarders); and *Dancers* and *Musicians*.

In a broader economic context, with the effects of Covid and Brexit, these challenges risk worsening in the future, especially with growing restrictions on immigration and worker mobility. Indeed, wider PEC research has highlighted a high level of international workers within creative businesses, with 22% of employers in the Creative Industries employing at least one non-UK worker - a higher rate than the economy as a whole. With high concentrations of migrant workers found in high-skilled roles, which are already exhibiting skills deficiencies, this points to a significant latent skills problem in the years ahead, if the level of migrant workers in the future falls.

The latest available Government sponsored labour market forecasts also suggest the Creative Industries are likely to see substantial future growth

over the next decade or so, which will place further pressures on creative skills demands. For instance, according to DfE's Working Futures project[13], the Creative Industries are projected to cover a greater share of the economy by 2027 than now, at 7.6%. This exceeds other priority sectors such as *Manufacturing* (6.7%) and *Construction* (6.5%). By 2027 the largest sub-sectors are anticipated to be *IT* (32%); *Architecture* (24%) and *Advertising* (11%).

Further, growth will continue in high-skilled roles with at least 8 in ten workers in *IT*, *Architecture* and *Advertising*, for example, in these roles. Again, looking at more detailed occupational breakdowns, it appears that these sub-sectors expect to continue to demand higher skilled workers in future.

Figure 7: Expected share of the economy in the next ten years

Source: DfE (2020) Working Futures

With UK tech investment already being amongst the third in the world, hitting a record high of $15bn in 2020, according to Tech UK research, and the fusion of creative and digital technologies and expertise enhancing business opportunities in future, this in turn is growing demands for *"createch skills"*, and a focus on STEAM. Increasingly, creative businesses are leading the development and deployment of new technologies for varying business applications in areas such as Artificial Intelligence (AI), immersive technologies (ie Augmented and Virtual Reality - AR/VR), programmatic advertising and marketing and creative robotics. In turn, a range of studies of the future of work[14] point to growing demands for digital skill needs, with increasing technological adoption, as well as higher cognitive and wider transversal and creative skills (including critical and divergent thinking) so that people can work more effectively alongside machines. Greater creativity will enhance the resilience of people to automation with nearly 9 out of ten creative roles resilient to the threat of machines.

So what does this mean for the future of higher education?

If we look at the **graduate metrics**, again using national sources, we can draw on existing research conducted by the PEC to begin to understand the importance of HE to the Creative Economy. Starting with the overall picture of participation, we can appraise the broad nature and shape of creative HE provision and how it is changing to meet broad labour market outcomes in the Creative Industries. At a headline level, it can be seen that the overall share of creative *Undergraduates* (UG), of all student enrolments, has increased over the last decade or so, from around 15% in 2007 to 17% 2017/18 – this is in line with a general growth across the Creative Economy. The HEIs have thus grown creative courses to provide an *important talent pipeline nationally and internationally* to the Creative Industries, which is recognised globally through league tables such as the QS World Subject Rankings 2021[15] and industry endorsements. Indeed, The UK Employer Skills Survey highlights that over 3/4s of creative businesses taking on graduates feel "*higher education leavers are work ready & well prepared for work*".[16] That said, the national picture also conceals much *heterogeneity within the creative education pipeline.* In the context, of Government aspirations to move towards a more differentiated HE strategy, it is, therefore, important for any future assessment framework to "get under the skin" of the national position, and to explore variations by subject, HEIs and regions.

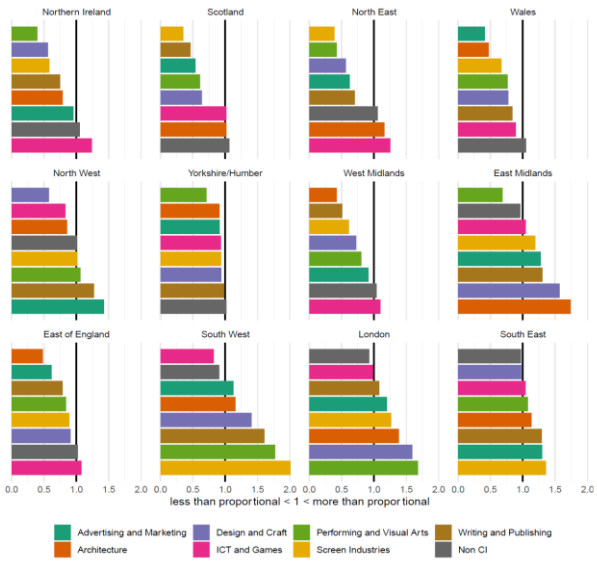
A closer view finds that whilst enrolment in some subject areas, like *ICT & Games, Screen* and *Performing & Visual Arts*, has grown over this period, this is not the case for all creative subjects. Indeed, while some subjects have plateaued (such as *Architecture* and *Advertising*) other areas have even declined – such as *Design, Craft*, and *Publishing*. With significant and growing demands in some of these related industries, these patterns of stagnant HE participation and/or decline could already be a cause of future concern. This is, especially in areas, such as Design, which are already exhibiting skills deficiencies in the labour market, and potentially point to a weakening talent pipeline. Furthermore, in jobs where there is

[13] Whilst these forecasts pre-date the Covid pandemic, with the OBR expecting the economy to recover by 2022 to pre-covid trends, the WF forecasts are still broadly indicative of future trends as a nationally comparative source.
[14] See for example the Industrial Strategy Council (2019) UK Skills Mismatch. CBI (2020) Learning for Life. PEC (2019) Creative Digital Skills Revolution and PEC (2018) Creativity and the Future of Skills.
[15] In the QS World Subject Rankings 2021, 7 UK institutions were ranked in the top 50 for Art & Design, 8 for Communications and Media Studies, 13 for Performing Arts.
[16] DfE (2018) UK Employer Skills Survey.

a reliance on migrant workers, this could further aggravate future sources of supply as already signalled by the MAC shortages list. This is of course before any possible funding and policy changes are implemented from 2021 onwards and must therefore be a priority area for further research and investigation.

In a context where the DfE is calling for the HE sector to be more responsive to labour market needs, it is of interest to establish from the analysis of graduate data, that there is already quite distinct *specialisation in creative subject profiles regionally and between HEIs*. This is illustrated through regional specialisation ratios for example (that is where the enrolment of UG students in a creative subject in a region is considered as a share of all students – creative specialisation in a region has an index above 1 in Figure 8).

Figure 8: Undergraduate creative industries enrolment relative to the total, by region

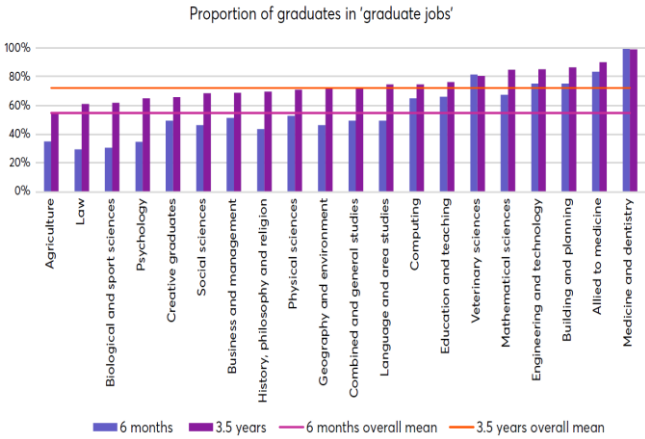


Source: PEC (2020) International creative students, using HESA data

For instance, it can be seen that Northern Ireland, East of England and the North-East perform strongly in supplying creative UGs in *ICT & Games*, whereas in contrast the South-East and South-West have a stronger specialisation in the *Screen industries*. This is important where the HEIs of that region are specialising to support creative businesses in those sectors in their local economy. As such, this highlights a further priority for more detailed analysis. That is, to avoid future funding cuts, which could undermine local specialisation, aggravating local deficiencies, and/or running counter to the Government's Levelling Up ambitions.

A broader look at specific creative graduate destination and outcome indicators, previously analysed within the PEC, using Government funded sources, gives a further sense of the value of different creative HE courses to the Creative Industries up to 3.5 years after graduating[17]. Employment prospects are high, with 89% of creative graduates employed 3.5 years after graduation (vs 87% of non-creative graduates). While a higher share of creative graduates (66%) are working within 'graduate level jobs' (as defined by DfE as SOC codes 1-3) than other important subject areas, such as law, biology & psychology, this is still below the all graduate overall mean (see Figure 9).

Figure 9: employment of different graduates in graduate jobs



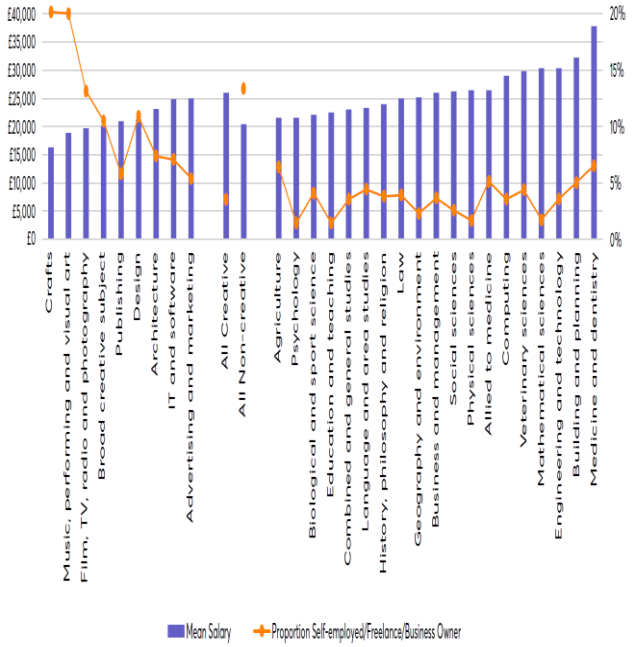
Source: PEC (2020) For love or money, based on HESA DLHE surveys 16/17

Most crucially however, a closer examination reveals that creative HE is giving graduates the skills they need to gain employment in the roles they want: 52% of creative graduates are working in creative jobs in the economy and 46% are working within the Creative Industries. Furthermore, 73% of creative graduates are motivated to take their job because it was the type of role, they really desired, rather than out of necessity, which is higher than non-creative graduates – at 66%. Again, the averages conceal higher matching between specific creative subjects and the sub-sectors creative graduates work in: so 82% of creative graduates in design subjects are working in *Design Industries;* 78% of creative graduates in *Music, performing & visual arts* subjects are working in related industries; and for *Architecture*, 75% of creative graduates in this subject are working in the Architecture sub-sector. This suggests that any analysis of value in future must be sufficiently granular, to fully understand variations between subjects.

[17] We have not analysed outcomes using the GOS yet, as we have been waiting for the testing and release of the experimental data. It is also limited by shorter destination measures to the pervious destination surveys That said, further analysis of GOS is planned by the PEC in the future.

As highlighted earlier, the DfE has already pointed to the lower salaries of creative graduates as an indication of the lower value of creative HE courses. Whilst our analysis has confirmed that the average earnings for creative graduates are below those of non-creative graduates (that is £20,450 versus £26,000 respectively), care is needed in interpreting the implications of this too narrowly, as there are many influences over salary levels and significant differences beyond the mean. The Destination of Leavers in HE Survey (DLHE) has allowed a more detailed analysis to be undertaken by the PEC, and hence enhances the explanatory power of the data. For example, it shows there is considerable variation in the earnings by subject area around the average – as seen in figure 10. Indeed, Creative graduates earn more on average, when working in the Creative Industries compared to those working outside (around £2,300 more per year). Furthermore, salaries vary significantly by creative sub-sectors and are closer to the average for the non-creative graduates in areas such as *IT* and *Advertising* as opposed to Craft for example.

Figure 10: Raw graduate earnings and self-employment by different subject group



Source: PEC (2020) For love or money, based on HESA DLHE surveys 16/17

Creative graduates' employment and pay prospects are also undoubtedly affected by structural factors and ways of working in the Creative Industries. For example, there is a higher degree of atypical employment. Indeed, creative graduates are 3x more likely to be *self-employed* than non-creative graduates (28% vs 8.5%). So lower levels of pay amongst those in Craft areas are inevitably a reflection of higher levels of self-employment amongst those creative workers. Averages also conceal differences in sub-sectors as illustrated in Figure 10. Furthermore, we find that higher proportions of creative graduates are part-time and undertaking voluntary work – for example 23% of creative graduates are part time & 9% are volunteers (vs 17% & 5% for non-creative graduates). This confirms the need for a sufficiently granular analysis in any future assessment.

But quantitative data is not the full story?

As important as quantitative assessments of priorities are, there are limits to relying on this type of analysis alone in assessing the value of creative education in some areas. This is especially where concepts are hard to measure quantitatively but impacts and insights are still important to capture. As such, we have also drawn on richer, more detailed qualitative information for illustrative purposes – an approach also recognised by Government in appraising the value of public investments such as within the HMT Green Book.

In the context of thinking about the value of HE we have been using case studies to provide numerous examples, from the "bottom up", of the different ways in which HEIs and creative courses are already actively contributing at an institutional level to the growth of the UK's Creative Economy. Indeed, case studies based on sound *Institutionally Determined Evidence*, of the kind managed through the HE excellence frameworks for teaching, research, and knowledge exchange, have been an effective way to bring these more contextual insights to life.[18]

These qualitative insights have shown that HEIs, through existing programmes, are demonstrating value in a few broader ways, which capture different domains of the framework. Some examples include:

- *Evolving course curriculums for the future.* This involves evidence of HEIs responses to future labour market developments around skills fusion and demands for createch skills, with blended and *multidisciplinary education.* This provides more concrete evidence that education programmes maintain relevance.
- *Embedding new opportunities for industry engagement*. This also includes moves to practical learning, often in industry settings as well as flexible, work-based learning within courses. This shows ways of enhancing the employability of graduates, ensuring quality through industry-endorsement and as such

[18] Examples of the case study evidence different HEIs have provided can be accessed on the OFS website such as TEF outcomes.

provides further evidence of relevance and value.

- *Providing a crucial source of new ideas & practices.* This highlights the ways HEIs broaden their reach through local economies and communities. For example: driving regional hubs for innovation, the growth of creative clusters, community regeneration and enhancing civic value, and the social, cultural and environmental wellbeing of the places.

Box – Case study examples of course development

HEIs in creative areas are already leading the way re-designing multi-disciplinary courses in response to evolving labour market needs, as the case studies show.[19] For example:

- Goldsmiths University of London are offering pioneering, future focused and industry relevant degrees, offering professional industry placements & industry standard facilities. Their BA Design Programmes support problem-based learning, encouraging students to use any medium to explore and create solutions for a range of issues. This then combines technological capability with arts & design. Other examples include the BMus/Bsc (Hons) Electronic Music, Computing and Technology combining the study of music & the creative arts with computing and technology.
- The *University of Kent* has developed a new multi-disciplinary, Digital Design BSc. This programme is founded on the fundamental interdependency of art, design, humanities and digital technologies, between content and delivery, and between science and creativity. This combines arts-based creative and design elements with computing and the latest technologies including audio, still and moving image, 3D, and interactive interfaces. This seeks to produce students with "blended skills" – that is technical and wider employability skills demanded in a modern economy. The course is delivered in close partnership with industry including additional modules delivered by the Business School in entrepreneurship and professional development. Courses include the option of undertaking a year's placement in industry, and industry projects, which are presented to employers at the end of the course.

It would be useful to review and pool such case study information from individual HEIs as a routine part of the assessment of Strategic Importance to complement the quantitative analysis and assessments of creative HE priorities. It would also allow for better alignment between different performance and assessment frameworks already deployed across the HE sector such as the TEF, REF and KEF. *So, what are the implications of this creative assessment for future policy developments?*

Future implications?

Whilst this analysis is not an attempt to conduct the assessment of Strategic Importance on behalf of the Government, it does seek to bring its potential to life and hence to constructively influence next steps; not least about where and how to target policy interventions and funding, especially in HE. In a context where the Government and its stakeholders are genuinely concerned about working together to support a robust post-Covid-19 recovery and long-term sustainable growth, as set out in the Plan for Growth, and where skills are stated to be one vital means to achieve it, it's clearly crucial to get future skills investment decisions right. It's certainly not desirable to support actions that make what are already significant skills deficiencies in the labour market any worse. This is particularly in sectors already important to the UK economy such as the Creative Industries. We have offered the beginnings of a framework to think objectively about the different dimensions of value, and consider what issues are important in identifying and acting on national and local employment and skills priorities in future. We hope this can inform the Government's thinking around assessment and policy prioritisation.

As we approach the autumn spending review in 2021, with high levels of national debt, following the Covid-19 pandemic, on the back of Augar, and with changes in the accounting rules for student loans, it was inevitable that the funding of HE would come under the spotlight. Of course, it is vital, especially in a more uncertain and disruptive future world of work, that education funding models in the years ahead are repurposed. Sustainable funding must be balanced, with contributions from all those who benefit, and is not just about the public purse – if it ever was. But equally, the step change required to support lifelong learning for all in a modern world is a substantial and long-term commitment and will still require a significant ongoing investment in the years ahead. This is clearly a "nettle that we all need to firmly grasp" – individuals, businesses and the Government alike.

But, it is also vital that education priorities are reviewed and met in the round. As such, the Government should think carefully about where and how to prioritise funding and policy developments in different parts of the skills system

[19] This is just a small selection. The PEC has been working with stakeholders such as the Creative Industries Federation and its Creative Education Careers Working Group and Education Strategy Group to source case studies widely from individual HEIs.

in future. This helps to ensure that decisions in one area do not risk unintended consequences in another, undermining overall levels of upskilling and hence the future talent pipeline overall. Moving forward, steps need to be taken to ensure a more balanced provision across the education pathway, with different education providers working together to repurpose and modernise provision to meet future labour market needs. A managed process of incremental change will ensure lifelong learning can be supported, as well as progression from school through FE and HE. It will allow time to build confidence in the new system. It will also provide space to engage key partners, such as employers, some of whom may be hard to reach. Employers are essential to ensuring future skills programmes are industry relevant and high quality, but currently have low levels of engagement.

A strategic assessment framework for HE provides an important basis to review strategic skills priorities and drive incremental improvements and change, with time to reflect on progress. This is especially where it aligns with and builds on wider experience, such as that presently deployed within the Skills and Productivity Board and network of LEPs and local partners within the Skills Advisory Panels. However, the current approach set out in consultation documents such as those proposed by OfS are not sufficient. Proposals based on unclear assessments of Strategic Importance and which indiscriminately, *exclude* most art, design and creative courses from priority subjects raise significant concerns. Where outcomes drive blunt, widespread funding cuts, and restricted policy opportunities, this undoubtedly risks major unintended consequences in some parts of the economy, especially where skills programmes are forced to immediately stop, and there may be nothing to replace them. This is particularly the case in key parts of the Creative Industries which are already facing skills deficiencies, as we emerge from the worst of the Covid-19 crisis.

As the previous analysis illustrates the Creative Industries and the Creative Economy have been a key UK success story over the past two decades. As such, they are expected to display considerable growth in the future too, supporting ambitions for urban regeneration and Levelling Up. Given the heterogeneity of the Creative Economy, this will not happen equally, everywhere, however, and there will be a need for sector customisation in some policies such as skills. In such a context, the strategic framework we propose, and the supporting research, offers the potential to undertake a more rounded assessment and granular analysis sub-sectorally and regionally. This might help to review and understand more objectively where the Government might work harder with industry partners and wider stakeholders, to accelerate co-investment and co-design of programmes, thus supporting a quicker return to innovation, recovery and long-term growth.

National investments and mainstream delivery can be supplemented with local and sectoral investments as regional and sectoral plans progress with devolution and sector visions. By the Government working systematically with partners, including skills institutions, such as HEIs, and exploiting the UK's already rich labour market evidence base and skills expertise, they can provide the basis to evolve skills delivery in partnership. In turn, changes can be managed, as part of the existing institutional and governance processes (such as the new TEF) and in a way that gradually enhances the relevance and currency of the UK skills system, whilst building capacity and quality. This will help to ensure the system is future-proofed, and institutions and programmes are sufficiently resourced without undermining the future talent pipeline.

Lesley Giles, Work Strand 2: Skills Talent and Diversity, PEC August 2021.

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