GuildHE response to:

Invest 2035: the UK's Modern Industrial Strategy

About GuildHE

GuildHE is an officially recognised representative body for UK Higher Education, championing distinction and diversity in the sector. Our 60 members include universities, university colleges, further education colleges and specialist institutions, representing over 150,000 students. Member institutions include some major providers in professional subject areas including art, design and media, music and the performing arts; agriculture and food; education; business and law, theology, the built environment; health and sports.

The sectoral approach

What are the most important subsectors and technologies that the UK government should focus on and why?

To boost productivity in all eight of the high-growth sectors, firstly the right high-level skills must be fostered across the whole education system, including training from employers, to provide an effective pipeline to these industries. Secondly, to stimulate greater investment, prioritisation of knowledge creation/dissemination between higher education providers and businesses, as proposed in the paper, is vital. To achieve this through the suggested sectoral approach, there needs to be sector-specific policies that are tailored to encourage collaboration between the full gamut of higher education institutions, including small, specialist and vocational providers; and the full range of businesses, including small and micro businesses. We agree that the sectoral approach is the right one in order to ensure the UK is prioritising sectors with the highest potential. However, the government will need to underpin this with a place/clusters strategy that considers equality of opportunity and does not contribute to further regional wealth disparities.

GuildHE represents vocational, technical and specialist higher and further education, with a particular focus on subject areas that serve key priority sub sectors that are primed to deliver economic growth. These institutions are well-positioned to deliver all three objectives of the industrial strategy, especially regional growth. However, there is particular critical mass in our membership for the following five areas;

GuildHE, Woburn House, 20 Tavistock Square, London, WC1H 9HB | 020 3393 6132 | info@guildhe.ac.uk | Charity Number: 1012218

- teacher training and community service
- health and social care (including allied health services)
- agriculture, food security and the built environment
- business and law
- creative industries across art, design, film, music, digital and performance.

These institutions are positioned all over the UK, including in cities, rural regions, coastal towns and villages, the importance of which will be expanded on in the Place section of this submission. In terms of particular sub sectors for this strategy to prioritise, we recommend that the Industrial Strategy is joined up with skills foresight from Skills England. The first Skills England report identified that the top three occupations that are in the highest demand in the UK are in health and social care, education and production. Whilst some of the eight high-growth sectors identified in this strategy could have positive impacts on those occupations, such as innovations in digital, green energy and advanced manufacturing, there should be sectoral join-up between training the future workforce, and investment in its economic growth.

In terms of identifying some sub sectors of the eight high-growth sectors in the Green Paper, here are some examples of the work institutions do to boost skills, products, services and regional collaboration in some sub sectors:

1. **Digital and Technology - Agricultural Technology**

Hartpury University College in Gloucestershire is a leading institution for agriculture, agri-tech, animal and veterinary sciences and sport. Their Agri-Tech Centre is a state-of-the-art complex, connecting research, knowledge, data, and people in a real-world and applied setting. Providing industry-led services for the advancement of agricultural technologies and delivering proven solutions and services to farms and suppliers locally and across the UK. This hub provides a path for innovative tech businesses to grow within the agricultural industry to trial new products and services to modernise and sustain British farming.

2. **Creative Industries - Business Accelerators**

Falmouth University's Launchpad Futures is a regional programme that drives growth in Cornwall's regional economy and beyond by sharing expertise and facilities with local businesses. This accelerator harnesses the educational and research strength of the institutions to deliver regional economic growth through business incubation, acceleration and partnership. The programme drives growth of existing businesses in a region with low levels of wider public investment. This programme is at risk of funding challenges due to the lack of replacement for European Development Funding (ERDF) since Brexit.

3. **Advanced Manufacturing and Clean Energy - Specialist Engineering**

Dyson Institute for Engineering and Technology has specialist expertise in delivering applied research and innovation in machine learning, motors, clean energy storage, product design and testing and

robotics. Alongside this, the institute is training the future workforce of engineers with particular focus on pioneering new technologies that make intrinsically relevant real-world impacts.

What are the UK's strengths and capabilities in these subsectors?

Collaboration between universities and employers to boost regional skills

Across all of the high-growth sectors and subsectors that higher education institutions service, they are powerful engines for growth. GuildHE institutions hold strong relationships with their Mayoral Combined Authorities, and local authorities as well as their local schools, colleges, and employers. They deliver degrees, apprenticeships and other flexible programmes in response to labour market needs and ensure education can deliver on its promise to improve lives and communities. As significant employers, higher education institutions have strong convening power to achieve inclusive growth across different scales, labour markets and geographical areas.

In particular, vocational, technical and specialist institutions in the UK have the unique ability to boost productivity levels, as well as prepare the future workforce in industries quickly, because the skills that are nurtured often have greater immediate relevance to employers. These institutions have well-developed and structured programmes that work in partnership with the industries they serve and some employers contribute to co-design of the curriculum. Evidence collected by the CBI suggests that employers want to be more involved in the co-creation of curricula to improve skills outcomes in the interests of their business, in cases such as apprenticeships. However, currently there is not enough collaboration between the educational provider and the employer to deliver the skills outcomes that employers need. The capability is there but greater collaboration is needed to drive better outcomes for sectors and regions.

As for regional skills in particular, many vocational institutions train the workforce for priority skills areas, with strategic consideration of the needs and strengths of their regions. Again, this is a capability that is currently underdeveloped and unrealised at scale. For example, The University of Worcester has the highest sustained employment rate in the country (2024 LEO survey data) and produces highly-qualified teachers, healthcare professionals and social workers nationally, but particularly for Worcester and the West Midlands due to collaborative partnerships with businesses and the NHS. GuildHE strongly recommends that vocational and specialist institutions, especially those serving high-growth sectors and training in-demand occupations, are incentivised and supported to collaborate with businesses, colleges and local public services with a flexible apprenticeship levy and involvement in the development of Local Growth Plans.

Producing innovative research, products and services

Universities in the UK conduct the majority of non-business R&D through government funding which allows them to, on the whole, create the foundation of the country's research, innovation and science landscape. This makes them enablers of skills and talent for innovation in all of the eight sectors. This is a pivotal role to play in any industrial strategy that aims to grow the economy. Vocational and specialist universities are particularly well-placed at the intersection between training, skills, innovation and employment due to their relationships with industry and the professions. They are able to harness the expertise and specific skills needed by industries and embed it into training provision through models such as embedded live briefs, real world assessments and IP licensing. SMEs benefit particularly from collaboration with smaller and specialist institutions due to their ability to work at

speed and drive growth locally. The Industrial Strategy should provide national strategic oversight on high-growth sectors that recognises the impacts of collaborations between vocational institutions and SMEs on local growth and regeneration, business support and mentoring and spin-outs.

Creative Industries improve living standards

We welcome that the creative industries are identified in the eight high-growth sectors. According to research by the Creative Policy and Evidence Centre, the creative industries grow at more than 1.5 times the rate of the wider UK economy and employment in these sectors have grown at 5 times the rate of the rest of the economy since 2011. The power that the creative industries have to grow the economy regionally is vast due to the social impact of cultural events. The 'City of Culture' programme is a phenomenon that has demonstrated the power of cultural capital, including through increased tourism.

To understand the value of arts, culture and the creative industries, it is necessary to interrogate the systems across each industry that makes up the collective term and devise tailored strategies to increase investment and growth. This could unlock a powerful tool for regional growth. Investments tend to be directed into the creative clusters in London and the South East contributing to high rates of growth in those regions. Creative industries, and the interventions they offer that have potential to be commercialised for tourism, are the leaders of higher living standards and population growth and equity. We recommend that the Industrial Strategy has a clear focus on boosting creative clusters in the North of England as well as the Midlands and South West - this should also include rural settings, not just cities and urban areas. This will stimulate FDI and other investment, as demonstrated in London, for UK regions and expand opportunities.

What are the key enablers and barriers to growth in these subsectors and how could the UK government address them?

R&D funding barriers

Research and innovation capability at vocational institutions is a strength that is currently underutilised. For example, the innovative digital products and services produced by specialist creative, agriculture, built environment and healthcare institutions have untapped potential to be scaled to grow these industries and attract both foreign and domestic investment. Funding that aims to drive seed-corn funding, business support initiatives or proof-of-concept at specialist institutions and those with smaller research environments is low. There needs to be a parity of esteem between provider research and innovation capabilities regardless of size or scale of research intensity. An example of where smaller environments are the right fit is in collaboration with SMEs and micro businesses. SMEs make up more than 99% of businesses in the UK, and are able to better collaborate with institutions that are geographically relevant, which are more agile and easier to access, and have both the specialist expertise and facilities to support their innovations. For example, the Research England funded Centre for Blended Realities at Falmouth University will provide SMEs in that region with access to cutting edge digital technologies and experts to explore the use of them.

Public investment in R&D lags behind many of the most innovative regions of the world. Sustaining growth through innovation relies on maintaining long term funding that does not only return short term

gains. For many vocational and specialist institutions, the funding they receive for R&D is limited, and constrained by formula based allocations which put primacy on scale. As we demonstrated in our report 'Expertise in Action', one-off allocations were provided to institutions not in receipt of formula based funding for innovation (HEIF) in 2021 and 2022. Though time-limited, this funding was hugely beneficial and productive, driving forward R&D in institutions such as Arts University Plymouth and Health Sciences University in ways that have directly benefited local communities and directly allowed Bath Spa University to reach the threshold to receive HEIF.

Despite good returns, this funding has not been extended to all institutions following this intervention, and therefore small scale institutions are again without sustained, predictable funding for activities that would contribute to the governments' growth mission, in communities and regions that other institutions do not reach. This sort of intervention is often due to an annual surplus at Research England. Such start-stop, feast or famine funding is not sustainable or strategic and does not make for a good environment for investment. The government should take proactive measures to build a sustainable and strategic funding model for R&D that leverages the potential of business-university partnerships and recognises that the surplus model is a detriment to growth. Research England's Regional Innovation Fund (RIF) in 2023 is another example of a programme based on surplus. This fund aims to provide funding on a regional basis for high-potential areas, but due to its short-term restraints, only universities that receive HEIF funding are eligible for this fund. This is due to Research England having time constraints to spend and demonstrate the value of the funding and therefore have no time to develop an allocation model that is fit for purpose. As the funding is only being allocated to institutions already in receipt of innovation funding in the first place, this approach may not close regional gaps, it may even widen them. We recommend that the Industrial Strategy reviews innovation funding allocations to identify strategic gaps where growth is currently constrained through formula funding.

Financial sustainability

Financial sustainability at universities in the UK is not stable. Higher education's ability to work innovatively, respond to skills gaps, collaborate with businesses and drive economic growth is currently curtailed by the lowest levels of funding per student in 25 years, according to PwC's UK Higher Education Financial Sustainability Report. The rise in NI contributions will have a further impact on university expenditure. This lack of sustainability of the sector is impacting its capability to undertake activities for growth and will likely be stifling investment. The Industrial Strategy Council should work collaboratively with the OfS and the DfE to support policy-making to restore the university sector's financial stability to meet this government's economic growth ambitions in line with high-growth sectors *and* low-growth areas.

Pro-business Environment

What are the most significant barriers to investment? Do they vary across growth-driving sectors?

Barriers to investment in skills and people

There is a skills shortage across many sectors in the UK with 80% of employers reporting they struggle to find skilled workers in 2024 (NCUB). From this, it is clear there are issues across the full education, training and employment system to produce the right skilled workers for most industries.

This system needs to be more coherent and handled from a people-oriented talent perspective, rather than a set of separate systems. The introduction of Skills England to oversee the tertiary education system is a welcome step to support a better flow of skills from schools through to FE, HE and also employer-funded training. There is an ongoing tension between the motivations of higher education institutions and that of employers. Universities necessarily need to react to student demand in terms of the courses that they supply. Employers, on the other hand, need to respond to industry needs as well as the needs of the specific firm. This presents a challenging landscape where occupational standards and the acquisition of transferable skills sit between these two motivations. Skills England should ensure that it investigates these motivations to identify the strengths of higher education and the strengths of employer-based training. This insight, and subsequent policy development, will create clarity of responsibility in the system.

The LLE is a welcome initiative for the education sector and demonstrates a shift to prioritising lifelong learning which could support iterative, relevant and effective upskilling of people for the benefit of the UK economy, in principle. This needs to be balanced with incentivising employers to invest in skilling and upskilling their staff where appropriate: the LLE should not replace employer contribution. With this in mind, the government should ensure that the Growth and Skills Levy is flexible for employers and responds to the skills needs of employers where universities can support occupational standards, and wider technical knowledge and transferable skills such as problem-solving, initiative, creativity and resilience.

What UK government policy solutions could best address barriers to investment that relate to people and skills (including issues such as delivery of employment support, careers, and skills provision), these?

Level 7 apprenticeship funding in the Growth and Skills Levy

Whilst we welcome the review of the apprenticeship levy process in order to expand opportunities to to spend the money on a variety of qualifications, we are concerned that the defunding of Level 7 apprenticeships, will cut off vital skills capabilities that serve priority industries. This is especially for occupations in healthcare, education, policing and community service and could be in the detriment of social mobility.

The recent plans to defund Level 7 apprenticeships in the levy, is an example of where occupations that are both currently and forecasted to be, in highest demand by Skills England, have not been prioritised in policy decisions. Many courses such as Senior Leadership at Level 7 are completed by school and NHS leaders and managers - these leadership skills in public services are currently in high demand. Similarly, apprenticeships in urban planning and development, sustainability and chartered surveying are filling critical skills gaps in the UK currently. Most of these apprenticeship opportunities offer a pathway for diverse learners and some take apprentices from Level 4 through to Level 7. All of these examples will be heavily affected by the removal of funding eligibility from the levy, because public services, local authorities and the NHS will struggle to foot the bill without it. If Skills England is going to effectively work with the Industrial Strategy and with the new plans for the NHS, it must have a greater influence on Treasury decision making based on the evidence it publishes.

Mobility for researchers across the academia and industry

UKRI should commission a project to explore policy ideas to encourage industry professionals to engage with universities and to bring their expertise in industry to academia. This mobility into universities is not often incentivised and could unlock larger scale collaborations for economic growth.

Despite this, vocational and technical universities have strong relationships with the industries they serve, and often have particularly fruitful models where industry informs the curriculum for students and longer term relationships with employers. Incentivising investment into these institutions, and expanding support to not only include research-intensive institutions, would leverage greater impact on the high-growth industries and would unlock unrealised potential.

What are the barriers to R&D commercialisation that the UK government should be considering?

For specialist and technical institutions, current structures that underpin commercialisation are not accessible to them due to its design. For example, Innovate UK's successful Knowledge Transfer Partnerships scheme enables researchers to apply their knowledge to real-world, industrial challenges and create novel solutions. GuildHE member institutions are keen to host these partnerships, with the potential to connect research in sports science, health sciences, creative arts with industrial applications. However the scheme's application process is over-complicated, assumes a complexity of structure at host universities based on research intensive settings, and requires a level of matched, upfront investment that both smaller institutions and the SMEs they are most likely to work with struggle to afford. Innovate UK should review its grant processes and structures to consider the full diversity of the higher education sector in order to grow opportunities for innovation in vocational education serving high-growth sectors and in rural, coastal and suburban regions.

We identify KTPs as a useful tool that could connect early career / stage researchers with the objectives of this scheme, but one that requires modernisation to keep step with the diversity of potential applicants and sectors it could serve. A similar call for modernisation applies to the range of advice and training materials on commercialisation developed and used by Innovate UK, particularly in its delivery for the creative sector.

Place

Do you agree with this characterisation of clusters? Are there any additional characteristics of dimensions of cluster definition and strength we should consider, such as the difference between services clusters and manufacturing clusters?

The methodology suggested in the paper is to measure strong concentrations of employment, high outputs, high productivity and innovation to determine the high-growth regions for the Industrial Strategy to prioritise. Whilst this is a logical and acceptable methodology, it is important that the government realises the risks that this methodology poses to inadvertently increase the wealth and prosperity gap between urban areas and rural regions.

The characterisation of clusters focusing on city regions will have implications on rural, coastal and 'left-behind' areas that have not received systematic investment for decades. Economic growth plans in the Industrial Strategy must be geographically inclusive to effectively meet the government's ambitions to drive up living standards and nurture the right environment for economic stability and security. Many GuildHE institutions are located in these regions. Despite low investment, lower living standards and less access to innovation funding, these institutions receive very high results in the most recent KEF for local growth and regeneration. This capability and success should not go

unnoticed when analysing high levels of productivity and innovation because they are located outside of cities, or because the outputs are lower in relation to large universities or cities. It is vital that potential for growth is not conflated with scale. Smaller scale innovations are having big impacts on the areas that need investment and growth the most. This strategy needs to support these impacts to grow, scale-up and have meaningful impacts on areas with the most deprivation.

Concentrations of employment tend to coalesce around London and the South East, as well as cities around the UK. We agree that identifying these areas as high-potential clusters is acceptable and logical. However, the acknowledgement that city regions also tend to have a high concentration of generalist, research-intensive universities that produce high research and innovation outputs is paramount. These outputs are not always delivered for the benefit of the region. Sometimes these outputs are in support of other legitimate university ambitions such as league tables, research excellence results and educational outcomes. Whilst these institutions have the potential to contribute to national growth, it is vital that to achieve *regional growth*, specialist, vocational, technical and smaller universities are also included in the strategic planning and implementation of 'cluster' growth development. We recommend that there is additional consideration of regional knowledge, expertise and partnership when formulating cluster activity outside of the current suggestion.

Finally, we are in support of the proposal for the strategy to be joined-up across government departments, and devolve powers to MCAs and local authorities. We ask that higher education providers are centralised in Local Growth Plans in every authority. There is a risk that some will involve these institutions more than others, creating further regional disparity. Vocational and technical institutions often have embedded relationships with local businesses so the co-creation of Local Growth Plans will build on strong existing relationships. This is the same for Local Skills Improvement Plans (LSIPs). With skills at the heart of vocational education, these institutions directly feed the local workforce across the high-growth sectors and therefore must be utilised in local skills planning and development. These institutions may be able to have great influence on regions through LGPs and LSIPs that may not have already established innovation strategies.

How should the Industrial Strategy accelerate growth in city regions and clusters of growth sectors across the UK through Local Growth Plans and other policy mechanisms?

By ensuring that higher education institutions are centralised in Local Growth Plans, they will be empowered to use their convening power as local anchor institutions with deep local relationships to support the full region. This includes the full diversity of institutions, with particular focus on vocational and specialist institutions because of their links outside of education. This is due to their unique ability to leverage industry relationships to grow the success of apprenticeships, CPD courses that involve employers and other engagement between employers and the future workforce.

Partnerships and Institutions

How can the Industrial Strategy Council best support the UK government to deliver and monitor the Industrial Strategy?

GuildHE recommends that the Industrial Strategy Council ensures that it feeds into work that is coordinated across government departments including the Department for Education, the Department for Science, Innovation and Technology, the Department for Culture, Media and Sport and Department for Business and Trade. This cross governmental collaboration will be imperative in order to influence the right policies across the sectors at the same rate. Similarly, the Industrial Strategy Council should work closely with Skills England to be informed by its skills forecasting. Skills England have also taken a sectoral approach to boosting skills for economic growth, but implementation of an Industrial Strategy must take stock of this intelligence. We also wish to see other government departments such as DEFRA and DHSC engage more with skills conversations at a national level.

The Industrial Strategy Council should also ensure to engage with the Migration Advisory Committee (MAC) to cross-pollinate analysis, strategy and policymaking for the development of the UK's economy with immigration policies designed to impact key labour market needs. This engagement is being conducted between Skills England and the MAC already, but GuildHE strongly recommends that the Industrial Strategy Council becomes a third collaborating pillar in the strategic system to grow inclusive economic prosperity, opportunity and diversity.

How should the Industrial Strategy Council interact with key non-government institutions and organisations?

The Industrial Strategy Council should engage with the three officially recognised representative bodies for higher and further education in the UK: GuildHE, Universities UK and the Association of Colleges. These three organisations are guardians of the education system and experts in supporting policy development for the provision of skills, research and innovation for economic growth. This representation will provide the Council with a litmus test for policy ideas that is representative of the full diversity of education provision across the four nations.