

Thank you for the opportunity to comment on the Industrial Strategy Green Paper.

We appreciate that you are seeking, and will receive, responses from a significant number of stakeholders; as such we wanted to simplify our response by providing it in two parts:

- The first provides the key points relevant to our universities and our region;
- The second provides more detailed responses to your questions.

#### Eastern Arc

Eastern Arc is a regional consortium of four research-intensive universities in the Greater South East of England: the universities of East Anglia (UEA), Essex, Kent and Sussex. Together, the universities are significant in both their global research leadership, and as anchor institutes within their regions, with a combined annual income of £1.2bn (of which £264m is R&D-related) and an estimated GVA of £2bn, which provide education and skills training for more than 50k students.

#### **Key points**

- 1. The Green Paper is a meaningful and considered proposal: We support the Government's commitment to developing a strong, business-focused Industrial Strategy, which has benefited from meaningful input from industry, the result of which is a clear, logical and sensible proposal for a long-term roadmap for economic development.
- 2. Universities are central to research development, economic growth and skills training: However, we believe that the Industrial Strategy needs to forefront the critical role of universities in driving the UK's economic growth. Whilst recognising the world-leading research that is undertaken by universities (p21, 25, 29, 31), the Green Paper does not explicitly name them as key stakeholders in developing the Strategy (p4, 13, 20, 27, 28, 37, 39, 52, 54, 56). Universities are essential to the success of the Industrial Strategy; they contribute more than £265bn to the UK economy, £63bn of which is around research and knowledge exchange, and are a key part of the R&D supply chain, through their symbiotic relationship with commercial research, and their provision of a pipeline of talent to the eight growth sectors. To maximise their contribution, the Strategy should set out a robust and sustainable framework for universities to address the longstanding problems of the current financial model (including shortfalls in funding for research and undergraduate tuition fees). Without

such a framework, the capacity and capability for universities to contribute to the Strategy will be limited.

- 3. There is an unresolved tension between national growth and regional development: The Strategy seeks both to drive national growth and to support regional development. However, the two are not identical, and there can be a tension between the two, which the Strategy does not resolve.Support for the eight growth sectors, which are based in a small number of highly-productive areas, will not necessarily benefit wider regions of need, and the relationship between the two including incentives for one to benefit the other need to be articulated.
- 4. There is a need for a more granular understanding of regional need and opportunity: Leading on from this, we would welcome a more granular understanding of regional need and opportunity. The greater south-east (GSE) is the productivity powerhouse of the UK, but the centres of productivity within it are focussed in discrete geographic locations and institutions. Elsewhere within the region there is both huge potential and significant need and inequality, as with other parts of the country, and it is important that this be fully recognised. Within such areas universities are an important part of the R&D supply chain, and play an invaluable role in convening businesses, local authorities and other organisations.
- 5. Regional engagement must go beyond mayoral combined authorities: We are concerned about the explicit role of mayoral combined authorities (MCAs) in developing the local growth plans and working with the Government in implementing the Strategy (p5, 15, 49). MCAs cover less than half the population, and there is only one (Cambridgeshire and Peterborough) in the GSE, and none in the Eastern Arc region, although there are several natural economic geographies, each of which is capable of nurturing innovation and growth. We would appreciate more clarity as to how the Government will work with those regions outside an MCA. If it intends to legislate to enable the adoption of MCAs across England, will measures be taken to ensure that there is an equitability between urban and rural authorities, and between pre-existing and new authorities?
- 6. The work of previous strategies should not be disregarded wholesale: In recognising the need to provide certainty and the problem of past strategies being 'too short-lived' (p12), there is a danger of adding to the churn by disregarding what has gone before, and the work that has been undertaken in implementing it on a national, regional, local and organisational level. The Green Paper proposals provide a strong framework for change, but we would encourage the Government to consider how it can take on board the analyses and proposals of previous strategies and build on the work that has already been started.
- 7. International openness is essential for growth. We welcome the Strategy's recognition of international partnerships as 'crucial to increasing growth' (p44). A significant reason for the UK's attractiveness to international investment in the past was its open economy, its favourable position in welcoming international talent, and its access to the single market through its membership of the EU. As such, it is essential that we not only develop the bipartisan partnerships suggested in the Strategy, particularly with our closest European neighbours, but address the visa restrictions that are preventing or discouraging talent from relocating to the UK and international postgraduate students from coming to the UK to study. International students are themselves part of the growth in the economy; their value grew by 81% between 2020-21, and are estimated to have a net economic value to the UK of

£37.4bn. The impact of restricting international students cannot be overstated; it is already severely undermining our ability to support research and innovation activities, and will reduce choice in advanced level study for UK students.,

8. The Government should not lose sight of the wider drivers of growth and its own skills agenda, as highlighted by the original (2018-21) Industrial Strategy Council, and the need to support all five capitals, including social and human. A healthy and equitable workforce, together with thriving communities, is noted in the Strategy (p29) but should be explicitly supported, with the necessary research and interventions to enable this to happen.

In summary the proposed Industrial Strategy is a welcome development and we are supportive of it. We would emphasise the central role of universities in the R&D supply chain, and the critical part they will play in the success of the Strategy. The Green Paper should recognise this and explicitly include them in further stakeholder consultation. The Government should also ensure that there is both a robust and sustainable foundation for them, and an equitable and inclusive regional structure for the development and implementation of local growth plans, which together should sit within a global framework that removes financial and regulatory barriers to inward investment and the migration of international talent.

#### **Consultation questions**

We have provided answers to those questions that have specific relevance to our universities and our region. We also provide, where possible, constructive suggestions as to how to move them forward. Where other stakeholders are best-placed to provide the answer (such as sector-specific businesses), we have left these questions out.

## 1. How should the UK government identify the most important subsectors for delivering our objectives?

We welcome the work that the Government has already undertaken in identifying the eight priority areas for growth. It is clear from the Green Paper that it has reviewed the literature and done some good initial analyses of the sectors with the highest productivity and opportunity for growth.

However, as the Strategy itself makes clear, 'traditional metrics such as Gross Value Added (GVA) and Standard Industrial Classification (SIC) codes are 'problematic for prioritising nascent sectors in early stages of development' (p19).

As such, the Government should take a four-track approach to identifying the subsectors, using both quantitative and qualitative methodologies, and ensuring that previous work in this area is not wasted.

- Firstly, it should reexamine the subsectors that were identified in previous exercises and strategies, and whether these should be incorporated into current and future plans. We are conscious that, in line with avoiding short-termism and unnecessary disruption in planning a strategy, the Government should take on board previous findings where appropriate. So, for instance, the previous Government (2024) identified a range of areas within net zero for funding: carbon capture, utilisation and storage, electricity networks, hydrogen, nuclear, and offshore wind. Equally, the Science and Technology Framework (2023), and the Innovation Strategy (2021) sought to prioritise advanced materials and manufacturing; AI, digital and advanced computing; bioinformatics and genomics; engineering biology; electronics, photonics and quantum; energy and environment technologies; and robotics and smart machines.
- Secondly, however imperfect, it should use traditional metrics (GVA, SIC) to give a broad sense of areas of interest and assess the above areas against these, whilst acknowledging the limitations and specifying explicitly what they are.
- It should then employ, where appropriate, alternative metrics such as real time industrial classifications (RTICs, developed by Data City), to address the aforementioned limitations and to cross-reference and sense-check the initial subsectors and identify any that were not surfaced.
- Finally, in parallel, develop a robust series of in-person consultations at both a national and regional level to sense-check the findings of the analyses with key stakeholders, including research and industry leaders, and other stakeholders, including universities and others involved in skills training and development.

## 2. How should the UK government account for emerging sectors and technologies for which conventional data sources are less appropriate?

In answer to question 1 we suggested using a four-track approach to identifying the growth sectors, including alternative metrics such as RTICs. In identifying emerging sectors and technologies we would recommend that the Government work with economists and business research leaders in our universities who have the depth of knowledge of the sectors and breadth of insight into appropriate methodologies. One example of such an expert is Dr Josh Siepel (USussex), who would provide insights into the creative industries priority. His research focuses on the intersection between entrepreneurship, skills and innovation, with particular reference to the role of creative industries and creative skills in the economy. He currently works with the AHRC Creative Industries Policy and Evidence Centre (PEC), where he is Research Lead for Creative Clusters, R&D and Innovation and Access to Finance.

#### 3. How should the UK government incorporate foundational sectors and value chains into this analysis?

In order to answer this we need to better understand what the Government means by 'foundational sectors'. The Green Paper's definition is limited ('these are the sectors which provide critical inputs and infrastructure to our growth-driving sectors'). When more fully defined, we can provide further suggestions on how the Government can incorporate them into the analysis.

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

This will depend on the analyses undertaken through the proposed activities and participants identified in Q1 and 2.

### 7. What are the most significant barriers to investment? Do they vary across the growth-driving sectors? What evidence can you share to illustrate this?

The Green Paper, following engagement with feedback from industry, has already identified the primary barriers to investment (skills, recruitment of international talent, data, R&D, technology adoption, access to finance, competition, regulation, energy prices, grid connections, infrastructure, and planning). They will, of course, vary between sectors (for instance, data would be particularly relevant to digital and technology, and financial services; grid connection to clean energy industries).

Many of these barriers are relevant to both our universities and to our region more broadly. For our universities, we would highlight two areas: the challenges for recruitment of international talent resulting from the current visa restrictions and costs associated with securing them; and the challenges for skills training resulting from over-regulation and under-investment.

#### Recruitment of international talent

Research and development is a global endeavour, and economic growth is predicated on an open framework of engagement with international academics, researchers and students. The role and value of international students in particular should not be underestimated. They comprise over a <u>quarter of all students at UK universities</u>, and the income generated from them has been essential for cross-subsidising the skills training and course viability for home students whose fees have remained frozen since 2017.

However, such international talent is being discouraged by both visa restrictions and increased costs. An <u>analysis by the Royal Society</u> showed that upfront visa costs had increased 126% since 2019, 17 times higher than the average for the countries included in its analysis. This is particularly impacting those with dependants: a family of four coming to the UK on a five-year Skilled Worker Visa is liable to pay up to £24,129 for a PhD level role.

Costs of the Global Talent Visa, the primary route for those working in R&D, are significantly higher than comparator nations (fig 1), and settlement costs for the UK are second only to Switzerland (fig 2).



Fig 1: GTV costs compared to other leading research nations (source: Royal Society)



Fig 2: Settlement costs of leading research nations (source: Royal Society)

#### Skills training

Universities are essential to a sustainable and strong talent pipeline and the skills-training that is central to it. However, the decade-long restriction to tuition fees has led to an untenable financial environment in which the vast majority of universities are critically challenged in providing this pipeline. At the same time the over-regulation of apprenticeships has made the provision of training unattractive and costly to deliver, with few incentives and multiple actors (OfS, Ofsted, IfATE, ESFA and others) having overlapping oversight. The recent removal of Level 7 provision, after significant investment in it by universities, will inevitably make them cautious and risk averse in establishing new programmes.

#### Transport infrastructure

For our region specifically, transport infrastructure is a significant barrier to investment. In <u>a</u> <u>report</u> led by the All Party Parliamentary Group (APPG) for the East of England, an area that includes two of our members (UEA and UEssex), transport links were identified as 'stunting the region's productivity by decreasing the available methods of travel for employees, consumers and those in education,' which follows 'years of underinvestment in the East's local public transport networks.'

This impacts onward travel from international transport hubs, such as Stansted Airport and its ports. Freeport East, a focus of significant recent Government investment, is based in Harwich, through which 3.5 million tonnes of freight traffic pass each year, but which is at the end of a one-lane section of the A120.

For the South East (home to UKent and USussex), infrastructure is a barrier but for different reasons. The APPG for South East <u>recognised</u> that the region was 'plagued by traffic congestion, fragile road networks, inadequate public transport services, and sluggish

East-West connections': 'Investment in transport infrastructure in the region has simply not kept up with the region's evolving needs to prop up a truly 'Global Britain'.

8 Where you identified barriers in response to Question 7 which relate to people and skills (including issues such as delivery of employment support, careers, and skills provision), what UK government policy solutions could best address these?

We believe that the Government is already taking significant steps to address the barriers to skills training that we identified in Q7. We welcome the establishment of Skills England, which we hope will address the over-regulation and confused landscape of oversight for degree-level apprenticeships. It remains to be seen how this (and the new growth and skills levy) will work in practice; more broadly we would encourage the Government to ensure a strong alignment between the Industrial Strategy and its skills agenda, and a clear blueprint for an integrated approach to the skills development journey.

Whilst we welcome the raise in the tuition fee in line with inflation, there is still a significant shortfall between the income universities receive for both skills training and research, and the cost of undertaking it. UUK has <u>calculated</u> that there is a £1.7bn deficit across the UK in teaching alone, with a further £5bn loss in delivering research.

There is therefore a need for a much more substantial rise to address the financial challenges facing universities. We await more detailed plans to ensure the sustainability of the sector, but would encourage the Government to consider a more significant rise in inflation to ensure that skills training is on a more robust footing.

### 9. What more could be done to achieve a step change in employer investment in training in the growth-driving sectors?

We would encourage the Government to consider a range of incentives for employers to invest in training in high-growth sectors, such as exempting businesses in the identified high-growth sectors from the decision to move some L7 apprenticeships outside the scope of levy-funding.

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

Barriers to R&D commercialisation are long-standing and not just restricted to the UK. <u>Research in 2019</u> for SMEs working in the sustainable energy sector in the Netherlands identified the following barriers: market competition, finance, risk aversion, and technical complexity. Risk aversion can include that of the Government, which can see SMEs as 'more prone to failure due to their small size and sensitivity to environmental change.' Here it is worth noting the relevance of this work to one of the Industrial Strategy's eight growth sectors: clean energy industries, and therefore it is worth looking at the specific barriers identified in the report. Figure 3 outlines these.



Fig 3: Barriers to commercialisation for SMEs in the sustainable energy sector in NL, 2019. *(Source: LLJ Meijer et al, Renewable and Sustainable Energy Reviews)* 

Given the long term, risky nature of university spin-outs in particular, the UK suffers from a lack of public funding to support a company's pre-revenue journey. This is the stage where we see many such fledgling spin-outs migrate outside the UK, where government contracts and programmes enable them to become better established.

Eastern Arc has taken steps to address the lack of support for commercialisation. It has secured £500k pilot funding from Research England for a joint tech transfer office that will develop a unified and strengthened spin-out eco-system in a circle around London. <u>The Golden Circle</u> will work with local supply chain collaborations, concentrations of highly specialised expert skilled workforces, investment in specialist equipment and infrastructure and clustering of investor networks.

By doing so, it will help to anchor the core national innovation hotspot more solidly within its wider region, creating a more powerful and robust platform to advance the UK's global competitive advantage.

## 12. How can the UK government best use data to support the delivery of the Industrial Strategy?

Data is central to the knowledge economy and crucial for industrial growth. Universities are at the forefront of developments in this area, from machine learning and big data to the collection and analysis of wider societal and economic quantitative and qualitative data, and the Government should work closely with the world-leading experts in this area.

The Eastern Arc universities are key players in this: the University of Sussex was one of the first UK universities to understand the potential of AI and undertake research in this area, and the 'godfather of AI', Nobel Prizewinner Prof <u>Geoffrey Hinton</u>, began his career at Sussex. Today AI forms one of its Centres of Excellence, and its Data-Intensive Science Centre (DISCUS) addresses real social and economic problems, applying data-science and machine learning to support the UK's public and private sector organisations to exploit their largest and most complex data sets, delivering beneficial outcomes for the general public, and gaining a competitive advantage on the international stage.

The University of Essex is a world-leader in societal and economic data research, home to the Institute for Social and Economic Research (ISER) and the national ESRC-funded Understanding Society longitudinal database, and its Institute for Analytics and Data Science (IADS) has been working for a decade to utilise new forms of data science and advanced analytic techniques to work with the private sector to develop lasting solutions to its development and growth.

This practical, applied approach is further demonstrated at UEA. Its Data Science and Statistics Laboratory has a long-standing collaborative relationship with Aviva which is both a key partner for the School and a leader in financial services, one of the Industrial Strategy's areas of growth, with insurance services shown to be the highest-performing sector in the UK (chart 2, p17).

## 13. What challenges or barriers to sharing or accessing data could the UK government remove to help improve business operations and decision making?

This strength in data science, together with our regional engagement and priority in working with external stakeholders, has led us to develop the <u>Coastal Data (Coda) Network</u>, which brings together researchers, local authorities, NHS trusts, ICBs and businesses to address the challenges <u>identified by the Chief Medical Officer</u> in health data relating to our coastal communities.

In a workshop led by the Network in 2022 it identified the challenges and barriers to sharing and accessing data. Issues included:

- Access to datasets, often resulting from risk-averse data-owners. Stakeholders suggested a number of ways to overcome this, including the development of an agency, like the Office for National Statistics (ONS), which could safeguard the curation of data, or negotiate a common release contract.
- Availability of the data, with many users unaware of the full range of datasets available. There was a need for a central registry of datasets with accurate metadata, so that analysts could understand the parameters for each set, its quality and how comprehensive it was.
- Applicability and relevance of the data, and existing or potential lacuna in the data available. Many stakeholders did not have the capacity to analyse it in-house, and there was an opportunity for closer collaboration with universities to provide this, but

also to work closely with the external stakeholders to jointly identify and co-create the framework that would make the data relevant and useable.

# 14. Where you identified barriers in response to Question 7 which relate to planning, infrastructure, and transport, what UK government policy solutions could best address these in addition to existing reforms? How can this best support regional growth?

There are a number of policy interventions that will help ameliorate the most intractable barriers to infrastructure in our region. These include:

- Better coordination between different agencies: APPG SE recommended 'a new holistic approach to transport planning – informed by local, and sub regional considerations - should be adopted, that promotes greater alignment between the Department for Transport and corresponding cross-departmental priorities including trade, growth, housing, planning and Net Zero.'
- A simplified resource allocation process. As before, the APPG SE recommended that 'the dependence of local authorities on bidding for unpredictable, competitive central Government pots should be eliminated to increase the efficiency of how taxpayers' money is spent.' A similar point was made by APPG EoE, which recommended 'simpler, longer-term funding mechanisms to facilitate stable regional transport investment pipelines that support the priorities already set out in the strategies of the region's two Subnational Transport Bodies (STBs).'
- Prioritisation of the East-West Mainline development to enable better connections within the GSE, and with the rest of the country, including the addressing of bottlenecks on the Felixstowe to Midlands corridor and frictionless interchange with the rest of the network but also with other transport modes (such as metro transport), facilitating the 'first mile, last mile' of journeys.

## 15. How can investment into infrastructure support the Industrial Strategy? What can the UK government do to better support this and facilitate co-investment? How does this differ across infrastructure classes?

We would suggest that the algorithm for allocating infrastructure investment be reconsidered. We would concur with the point made by APPG SE in its report (cited in our answer to Q7), 'perceived wealth has resulted in infrastructure investment allocations that do not proportionately address evolving regional needs – in the new remote working post pandemic landscape sluggish East-West transport connections are glaring. Rather than focus on per capita spending, investment should aim to improve productivity, streamline supply chains, increase tax revenue, and support net zero ambitions.'

#### 19. How can regulatory and competition institutions best drive market dynamism to boost economic activity and growth?

As we suggest in our answer to Q14, better coordination between different agencies, and clarity of their roles and expectations, would make a significant difference to driving market dynamism, making the process of engaging with the UK simpler and more straightforward, and therefore the cost for international investors significantly less. This is in line with the Strategy's own aspiration.

### 24. How can international partnerships (government-to-government or government-to-business) support the Industrial Strategy?

As we highlighted in Key Point 7, international openness is essential for growth, and we welcome the Strategy's recognition of international partnerships as 'crucial to increasing growth'. This is not the place to revisit the effects of Brexit; however, it is valuable to consider the elements that made the UK attractive to international investment when it was a member of the EU. Philip McCann, in <u>assessing</u> why the UK's productivity was currently weak and regionally unbalanced, identified the relative strengths of the UK when it participated in the Single Market: 'the UK was seen by many international firms as an excellent place for locating establishments aimed at exporting to the rest of the EU. A deregulated market landscape, a strong legal enforcement regime and an English-language working environment together provided an ideal base for those firms seeking an export platform.'

It is hoped that, by nurturing productive and mutually beneficial international partnerships, similar advantages would be re-established. In particular, the lowering of tariffs, and the simplification and coordination of regulatory constraints (Q14, 15 and 19), would provide a huge support to the Industrial Strategy.

### 25. Which international markets do you see as the greatest opportunity for the growthdriving sectors and how does it differ by sector?

The European Union. The EU is the UK's primary trading partner; 43% of the UK's exports (including 39% of its service exports) went to the EU. As the region closest to mainland Europe, the GSE is at the forefront of trade with the bloc. As such, it is essential that barriers to Europe be minimised or removed completely.

In relation to this, we welcome the UK's reassociation with Horizon Europe, and the Government's indication that it would be supportive of the new Framework Programme (FP10). However, we would encourage a more active engagement with its development, and early confirmation of the UK's association with it.

26. 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?

We broadly concur with the Strategy's characterisation of clusters as 'businesses co-locating...to take advantage of economies of scale, talent pipelines, land, supply chains, knowledge spillovers, and more.' However, we would explicitly highlight the role of universities within this, providing both skills training and symbiotic R&D for industry, as well as the wider civic benefit for workers that are an essential element of making a region an attractive place to live. We would also highlight the other complementary public sector research establishments (PSREs) that are part of regional sectors.

Norwich, for example, is a strong life sciences cluster. The Norwich Research Park (NRP), one of the largest single-site life science and agricultural research hubs in Europe, is a key asset in driving the UK's ambitions in health, sustainability, and innovation. It brings together the Earlham Institute, John Innes Centre, Quadram Institute and The Sainsbury Laboratory (TSL) along with the Norfolk and Norwich University Hospital with the University of East Anglia, which together host 3,000 scientists in a strong cluster of excellent research, combined with a pipeline of highly skilled graduates and a hub for over 40 companies based on the Park.

It is a world-renowned centre of excellence where cutting-edge research meets real-world applications, spanning areas such as biotechnology, precision medicine, environmental health, and food security and includes three of the eight UK-wide research institutes funded by the Biotechnology and Biological Sciences Research Council (BBSRC).

28. 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?

For the Industrial Strategy to succeed, it is essential that there is a real, nuanced and granular understanding of the UK's regions, and an equitable, appropriate and comprehensive framework for working with the regions. We have some concern that the way in which the GSE is framed within the Green Paper does not reflect the diversity of the region. Whilst it is the productivity powerhouse of the UK, this productivity is limited to hotspots within it, such as the Golden Triangle universities (and in particular Oxford, Cambridge, UCL, ICL, KCL), and the M4 corridor. Areas outside of these hotspots have as much need and potential as the post-industrial areas identified in the Strategy.

This is clearly demonstrated in data from the ONS (2020) showing GVA by UK region (figure 4). Outside of the GT and M4 corridor, productivity in the GSE is similar - and, in many areas, poorer - than in areas to the north and west.



Fig 4: GVA by hour worked (source: ONS)

Thus, the Strategy should start with a comprehensive and granular understanding of regional need. Building on this, it needs to put in place a framework for developing Local Growth Plans that cover all regions and the whole population.

The explicit proposal to work with mayoral combined authorities (MCAs) does not provide this framework. Currently, MCAs have oversight of half the population, primarily in the Midlands and North (figure 5).





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

We very much welcome the proposal to establish a statutory Industrial Strategy Council. Such a body will be important in delivering and monitoring the Strategy. In establishing it, we would suggest that the Government look to the original non-statutory Industrial Strategy Council (2018-21), in line with Key Point 6, above. Although it only existed for three years, it developed a strong, robust and independent framework by which to monitor the Industrial Strategy (2017) and hold the Government to account. It provided a series of reports and recommendations, which unfortunately are no longer available publicly, although we would hope that the civil service continues to have access to them.

Such recommendations included the development of 'a comprehensive and ambitious Labour Market Strategy, coordinating across government, and in collaboration with

employers, the education sector and trade unions' in order to address what it saw as 'long-standing shifts in technology, demography and sustainability are likely to lead to significant changes in the nature of work over coming decades.'

This work, and the framework of the original Council, should not be disregarded, but rather built upon. As such, we would recommend that the original Chair, Andy Haldane, be consulted in the development of the new statutory body, and that ideally a formal review of the operation and outcomes of the Council be commissioned.

## 32. How can the UK government improve the interface between the Industrial Strategy Council and government, business, local leaders and trade unions?

As above, we recommend that the Government review the work of the original Industrial Strategy Council to consider how a new Council should interact effectively with NGOs and other stakeholders.

## 33. How could the analytical framework (e.g. identifying intermediate outcomes) for the Industrial Strategy be strengthened?

We would suggest that there needs to be a clearer definition of the foundational and growth sectors, as we highlighted in our answer to Q3. This is critical to understand the dependencies and where the key risks may be, and thereby enable them to be mitigated.Consideration should also be given to social, cultural and environmental indicators (as noted in Key Point 8). There is a clear role for the higher education sector here, to provide the analysis and scenario modelling.

## 34. What are the key risks and assumptions we should embed in the logical model underpinning the Theory of Change?

There are a number of risks and assumptions that should be embedded in the logical model. These include:

- Risks:
  - Regional disparities, including in their capabilities and capacity, their infrastructure and resources, and their social and cultural drivers.
  - Economic shocks, including those that may result from the current financial insecurity of the higher education sector.
  - Technological inequalities, including its adoption and ability to adjust, which vary significantly between sectors.
  - International uncertainty, relating both to the ability for the UK to retain talent and for it to trade openly and equitably.
- Assumptions:
  - Economic conditions, including sectors such as HE
  - Policy continuity. Although we welcome the longer-term (10 year) outlook, parliamentary terms are only five years. Can policy continuity be guaranteed?

- Co-dependencies, which need to be defined and understood, with interactions between foundational and growth sectors mapped.
- Sector and stakeholder engagement and collaboration.