OfS and the Industrial Strategy

Issue

1. This paper seeks the Board's views on how the OfS should engage with the government's Industrial Strategy (IS).

Recommendations

2. The Board is invited to:

    a. Note the priorities within the government's Industrial Strategy

    b. Note how the OfS strategy and regulatory Framework intersects with the priorities in the government's industrial strategy.

    c. Advise on the proposal for how OfS should conduct analysis to understand skills gaps and the future needs of the economy.

    d. Advise on the ways in which OfS should engage with the Industrial Strategy.
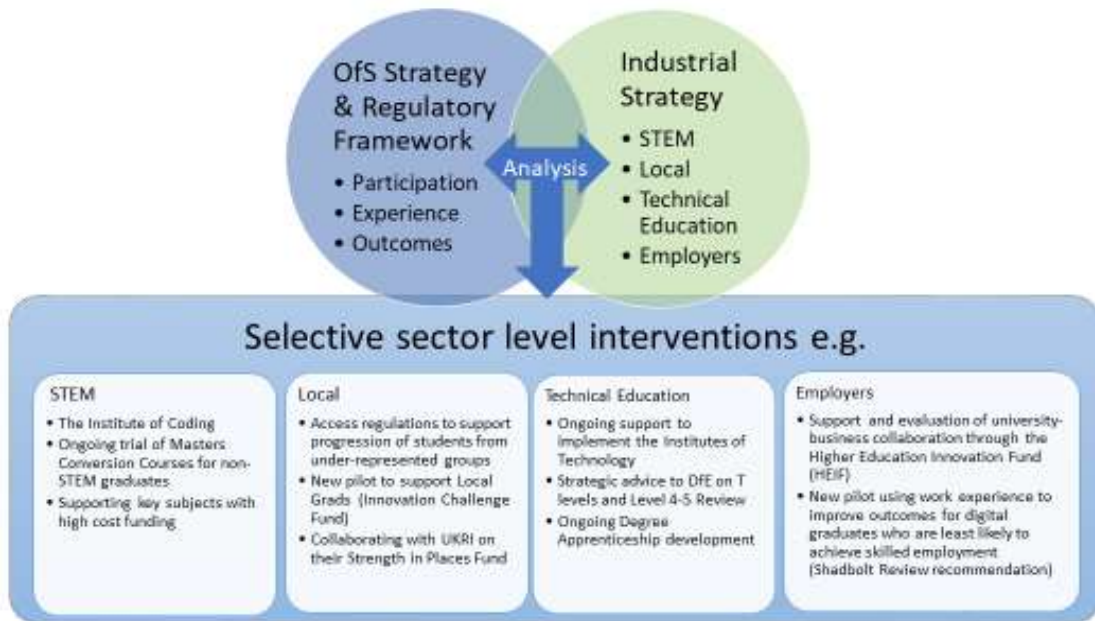
Further information

3. Available from Chris Millward, Director of Fair Access and Participation, chris.millward@officeforstudents.org.uk or 0117 931 7448; or Nicola Turner, Head of Skills, Nicola.turner@officeforstudents.org.uk or on 0117 931 7217.

Member's interests

4. None

Background

5. This paper presents an analysis of the government's industrial strategy, in particular the section of the strategy that is focused on People, which is the most relevant to the OfS' strategy. It considers how the industrial strategy priorities align with the OfS duties and regulatory levers, and the areas in which they could be mutually supportive. It proposes that we should develop a capability to understand how the HE system is engaging with the industrial strategy. It also identifies how OfS is currently engaging with the priorities in the industrial strategy and some areas in which this could be enhanced, including through the Innovation Challenge Fund, which is the focus of a separate paper at this meeting.

6. By engaging successfully with the priorities in the industrial strategy, we believe that OfS will be able to advance the goals in our own strategy, particularly with regard to student outcomes beyond higher education. The priorities in the industrial strategy do not, however, cover all of our ambitions with regard to student outcomes, particularly in areas other than STEM and technical education, and the activities in this paper should not be considered to represent the full extent of our activity in support of students. A key aspect of our work, for example, will be to develop the OfS approach to information, advice and guidance, within which we will address the imperative for students to understand the potential employment outcomes from the different paths they could take at key transition points. This work has the potential to improve the alignment between student choice and employer needs, but it will provide benefits well beyond the specific areas highlighted in the industrial strategy.

7. Our proposed approach for engaging with the industrial strategy is as follows:

    a. We should identify the areas in which the goals in our strategy and regulatory framework intersect with those in the Industrial Strategy and could be mutually supportive.

    b. Our primary tool for supporting the industrial strategy should be our regulation of providers through the regulatory framework.

    c. We should develop a sophisticated approach to understanding skills gaps and the future needs of the economy, using our own data analysis, evidence gathered by others and direct engagement with employers.

    d. We should selectively identify sector-level interventions where there is clear evidence that they will enhance the HE sector's engagement with the industrial strategy and also support our own strategy

8. This is summarised below.

Selective sector level interventions e.g.

STEM
- The Institute of Coding
- Ongoing trial of Masters Conversion Courses for non-STEM graduates
- Supporting key subjects with high cost funding

Local
- Access regulations to support progression of students from under-represented groups
- New pilot to support Local Grads (Innovation Challenge Fund)
- Collaborating with UKRI on their Strength in Places Fund

Technical Education
- Ongoing support to implement the Institutes of Technology
- Strategic advice to DfE on T levels and Level 4-5 Review
- Ongoing Degree Apprenticeship development

Employers
- Support and evaluation of university-business collaboration through the Higher Education Innovation Fund (HEIF)
- New pilot using work experience to improve outcomes for digital graduates who are least likely to achieve skilled employment (Shadbolt Review recommendation)

Industrial Strategy

9. The industrial strategy aims to boost the nation's productivity and prosperity, within which a key success factor will be a skilled workforce that meets the needs of employers today and tomorrow. The higher education sector is identified within the strategy as playing an important role in delivering the pipeline of highly skilled workers to produce high value-added products and services, locally and nationally.

10. There are four priorities identified in the 'people' section of the industrial strategy that connect with the OfS' strategy:

   a. To increase the number of people skilled in *STEM*: more skilled people are needed in the key priority areas of AI, Life Sciences, Electric Vehicles, Construction, Clean Growth, Nuclear.

   b. To address *regional disparities* in skills that contribute to patchy productivity: the strategy seeks to narrow skills and education disparities across communities, and to remove barriers faced by under-represented groups in employment. Unmet demand in the form of unfilled vacancies in regional locations is identified as a major factor.

   c. To reform *technical education*: Government initiatives are identified that will improve the pipeline of skilled people through this route.

   d. To encourage *employers to be more closely involved in the HE system* to ensure it can respond to current and future labour force requirements.

11. The Industrial Strategy identifies the OfS as a specific contributor to this, stating: 'The OfS will address student and employer needs and expectations in the short, medium and long

term—considering the gaps that exist today and anticipating the demands of the future economy'.

12. The Industrial Strategy has implications for higher education that are important but go beyond the remit of the OfS. Providers have a critical role to play as anchor institutions, acting as centres of culture and as employers themselves. The OfS does not have a role to play in supporting providers as institutions, but it is critical to recognise their importance in this regard.

OfS Strategy and Regulatory Framework

13. Whereas these priorities are focused on skills, places, provision and ways of working, the OfS Strategy is focused on the student journey.

14. We believe, however, that by delivering our student-focused goals through baseline regulation of providers underpinning the pursuit of excellence through competition between autonomous providers, we will drive improvements that will address the People priorities within the industrial strategy.

15. Key aspects of this include the following registration conditions:
    a. Condition A1, requiring every HE provider charging the higher fee to agree an access and participation plan that demonstrates continuous improvement by reducing the gaps not just in access and student success, but also progression into employment for students from under-represented groups.
    b. Condition B3, requiring HE providers to demonstrate that they deliver successful outcomes for all students, which are recognised and valued by employers, and/or enable further study.
    c. Condition B6, requiring HE providers to participate in the Teaching Excellence and Student Outcomes Framework, which includes measures designed to reward progression into highly skilled employment.

16. Also the following sector-wide measures:
    a. Provision of information, advice and guidance to students, using the latest behavioural insights, to support informed choice.
    b. Removing barriers to new providers and forms of provision, including innovative and flexible modes that respond to the needs of students from different backgrounds and at different stages of life.

17. Our activity to promote informed choice will be a particularly crucial lever, given its potential to improve the alignment between the decisions students make about where and particularly what to study and the areas in which employers are identifying higher level skills needs. We are engaging with the Careers Enterprise Company on how we could improve the evidence-base and support for student decision-making at key transition points. A step change in the provision of sophisticated information, advice and guidance, opening up genuinely informed choice for students about the pathways and likely outcomes available to them, will be crucial if we are to drive the participation, experience and outcomes ambitions set out in our own strategy, as well as improving the supply of higher level skills in line with the industrial strategy.

18. If we apply these levers effectively, we should expect to drive an improvement in student outcomes and the growth of provision that achieves this. That in itself should support the People priorities in the industrial strategy, for example by increasing the number and quality of graduates from STEM and other economically valuable courses, enabling the growth of new technical routes through higher education and enhancing the involvement of employers in HE curricula and delivery. We propose, therefore, that this should be our primary tool for engaging with the industrial strategy.

19. In order, however, to deliver on the role identified for us within the industrial strategy we need to extend our activity beyond this. Firstly, by developing an underpinning capability for 'considering the gaps that exist today and anticipating the demands of the future economy', as set out in the industrial strategy. Secondly, by making selective interventions to address evidential gaps and future needs. In the remaining sections of this paper, we set out some ways in which we are doing this and how we could build on it in the future.

20. Subject to the Board's discussion and agreement, these activities will be further developed with the Chief Executive and in conjunction with colleagues working on the implementation of the new Innovation Challenge Fund.

Understanding skills gaps and future needs

21. Our business plan makes clear that we will develop a data strategy for OfS during our first year. We propose that, as part of this work, we should work with labour market experts to develop a structured approach to gathering data and producing measures of the current and anticipated flow of students in different subjects, places and forms of provision, and that we should align this with other sources of evidence such as employer skills surveys and foresight studies.

22. In order to mitigate against data lag and ensure up to date insights, we propose also that we should establish a channel for intelligence from employers and their representative bodies. With this input, we would to refine our approach to engaging with the industrial strategy by determining any interventions we wish to make to address student and employer needs and expectations. We would also, though, be supporting students, providers and employers by providing them with intelligent and robust evidence and insights to support their own choices and activity.

23. This is an area in which OfS can make a profound difference, filling a strongly perceived gap in the current landscape. Over the coming weeks, we will be developing a programme of work intended to bridge analysis of skills gaps and emerging skills needs with the provision of impartial careers advice and guidance (including on work experience). This will intersect with our work on horizon scanning, in which we will seek to anticipate emerging trends in higher education, the economy and beyond in order to ensure our regulatory regime is fit for purpose.

Increasing the number of people skilled in STEM

24. We are currently supporting STEM by:

a. Funding the Institute of Coding (IoC) for the next two years to improve the supply of digital skills. The partnership is focused on improving participation and student outcomes, and the engagement between HE providers and industry, as well as developing scalable new models of digital provision that are more responsive to students and the industry.

b. Trialling new provision that takes non-STEM graduates into a Masters conversion course in Engineering or Digital disciplines. We are awaiting the full outcomes data, but preliminary findings suggest success in bringing mature students into Masters courses through evening and weekend provision.

c. Providing a supplement of £1.5k per student for STEM subjects in order to ensure the sustainability of high quality provision in a context where the tuition fee that can be charged is less than the cost of delivery.

25. The Board has agreed that we should not make any changes to this funding until it is clear whether the government's post-18 finance review will lead to any changes to the financing of STEM. We are, however, planning to engage the Board on the options for fundamental change to our funding approach in the autumn. We will also focus specifically on the priority areas of AI, Life Sciences, Electric Vehicles, Construction, Clean Growth and Nuclear within our analytical work to understand skills gaps and future needs, and we will seek advice from government and employers on whether any specific intervention may be needed.

Reforming technical education

26. We are supporting the reform of technical education by conducting assessments to establish Institutes of Technology, which are intended to establish high quality technical provision, particularly at the intermediate level, delivered by consortia of universities, colleges and employers in local areas. The Institutes have the potential to provide high quality routes through higher education for students who are currently under-represented, such as males from low participation backgrounds and mature students. We will, therefore, continue to engage with DfE on the development of the Institutes, together with its broader reforms of technical education, which include a review of level 4 and 5 education and the development of T-levels.

27. We are providing development funding for the growth of degree apprenticeships and an evaluation of this work, which will provide advice to OfS and the HE sector in summer 2018. We are also engaging the Institute for Apprenticeships on the development of higher level and degree apprenticeships through its Quality Alliance and working with Ofsted on a joint approach to quality assessment at levels 4 and 5, whilst retaining responsibility for the quality assessment of degree apprenticeships at levels 6 and 7. In the next phase of work, we propose to identify a small number of areas in which scaling up degree apprenticeships could particularly support our strategy and the OfS levers that could be deployed to address the barriers to this.

Encouraging employer involvement in HE

28. We are supporting the involvement of employers in HE through the Higher Education Innovation Fund (HEIF), which we fund alongside UK Research & Innovation. HEIF promotes collaboration between universities and industry on student and research-led knowledge exchange. This includes support for student enterprise, work placement and graduate transitions into work. We are commissioning analysis to determine how students contribute to and benefit from the activities supported by the Fund, including the return on investment from this, with the aim of identifying new priorities for the student-led component in future years.

29. We propose also to act on a recommendation in the Shadbolt Review (2016), which found that poor graduate outcomes in computer science can be improved with work experience, especially for students from disadvantaged backgrounds. The Department of Culture Media and Sport (DCMS), which has responsibility for digital skills, would like to work with OfS on a programme to bring universities and employers together to enhance work experience for these students. This programme, which we would support through the Innovation Challenge Fund, would be intended to serve as a pilot for work experience to be scaled up in other subjects, so it would have the potential for sustained benefits sector-wide. In doing so, it would meet the purpose proposed for the Fund to bridge gaps where demand and supply side mechanisms are not working optimally.

30. The Shadbolt Review identified that computer science graduates had both the best and the poorest rates of employment of all the disciplines and that those who had undertaken work experience were three times more likely to be in skilled employment, irrespective of their background. However, students from the most disadvantaged backgrounds were the least likely to undertake work experience. Through the proposed programme, we would aim to test ways of removing the barriers for such students to gain access to work experience. We would issue a call for projects to create innovative work experience interventions in collaboration with employers to improve graduate outcomes for those who are least likely to achieve successful transition into the labour market, despite a strong demand for digital skills. Proposals would include activity such as bringing work experience to campus through live briefs, increasing the take up of student enterprise, consultancy or short forms of work experience, and increasing the encounters that students have with employers.

Addressing regional disparities in skills and productivity

31. Taking into account our strategy and regulatory objectives, we have for the first time placed emphasis within access regulation on supporting the progression of students from under-represented groups, ethnic minorities and with disabilities into employment, particularly where there is evidence that the rates of progression are lower than would be expected given their entrance and exit qualifications. In these cases, we expect providers to reduce the gaps in progression between these groups and other students and also to improve their practice through close working with employers.

32. The majority of graduates (69%) gain initial employment in their home region (DLHE 2017), so the likelihood of successful progression is greatly increased if the home region has a demand for their higher level skills. Using currently available data, we can identify places

that suffer from poor regional productivity as a result of a mismatch with the higher level skills available. These 'market failures' are caused by an under-supply of graduates within a region, insufficient employer demand within a region and extreme low-mobility of graduates. In order, therefore, to supplement our provider-level regulation through access and participation plans, we propose to develop a pilot programme through the Innovation Challenge Fund for HE providers to work with employers and local agencies on the transition into work for graduates who studied where they grew up. A key aspect of this would be HE providers working with local employers, particularly SMEs, to enhance their absorptive capacity in relation to graduate skills.

33. Through this programme, we would aim to encourage providers to take action to bridge gaps where demand and supply side mechanisms are not working well at local level. Projects would need to clearly evidence a skills mismatch in their local area and explain how this is affecting the employment outcomes of graduates. Proposals for fixing the issue would need to demonstrate collaboration with local agencies and employers. They would also need to suggest new ways to advise students and inform their expectations at key decision making points in the student journey, strategically re-align provision with regional skills gaps, encourage and support greater graduate mobility and engage students with local employers in new ways, earlier in their studies. The aim would be to pilot approaches that could be scaled at sector-level in order to improve progression into skilled work for all students, regardless of their background and location, and also to reduce regional disparities in productivity and the availability of a skilled workforce.

34. Industry often wants to engage with all aspects of higher education, extending from graduate and postgraduate recruitment to research and innovation, facilities use and staff development. We are also, therefore, working with UK Research and Innovation (UKRI) on its Strength in Places fund, which seeks to improve local productivity by capitalising on local research capability and expertise. In order for this work to succeed, it needs to draw on the full pipeline of higher level skills, extending from undergraduates to postgraduates and into research careers. This will form one part of our wider collaboration with UKRI, through which we plan to conduct joint analysis to understand the flow of graduates into the research base and take action to address areas of unmet demand.

Recommendations

35. The Board is invited to:

   a. Note the priorities within the government's Industrial Strategy

   b. Note how the OfS strategy and regulatory Framework intersects with the priorities in the government's industrial strategy.

   c. Advise on the proposal for how OfS should conduct analysis to understand skills gaps and the future needs of the economy.

   d. Advise on the ways in which OfS should engage with the Industrial Strategy.

Resource implications

36. The new activity identified in this paper will be led from existing staff in the Skills team within the DFAP directorate, in collaboration with the DFA directorate and the team delivering the Innovation Challenge Fund.

37. We will need to commission external advice to support our analytical work, which will be drawn from the budget we have earmarked in 2018-19 for research and analysis.

38. Programme funding for the digital skills and local graduates activities will be drawn from the Innovation Challenge Fund budget, which is the subject of another paper at this meeting, subject to this being approved and agreed.

Communications and engagement

39. We will develop a communications strategy and high-level narrative around the ways in which the OfS will help to support the industrial strategy, commensurate with its student-focused strategic aims and objectives. As part of this, any information about projects to be undertaken will be published on the OfS website as appropriate. We will proactively advertise calls for funding through our admin-ofs mailing list and social media. All new investments will be publicised through press releases, and we will use blogs and social media to proactively highlight ongoing results, dissemination activities, impacts and outcomes.

40. We will also be developing communications on how we intend to work with UKRI across our shared interests, within which the industrial strategy will form an important strand.

41. Our intention is to withhold immediate publication of this paper on the OfS website. We will review this exemption once the first call for proposals has been issued.

Risk implications

42. The paper presents a range of approaches to the industrial strategy. Across all the potential interventions there are some broad risks we have considered:

    a. Is this approach in line with the functions and duties of the OfS? For example, to promote competition.

       Mitigation: we will test this when we determine the criteria for any funding interventions and make decisions on projects. Our focus will be on activities that could be scaled up sector-wide. All providers will be able to engage with our work and to determine whether they wish to do so.

    b. These interventions may not be the right ones

       Mitigation: a key aspect of our strategy is to improve our understanding of skills gaps and future needs. In the meantime, we have drawn on the available evidence to identify those areas in which we believe we can make the most difference for students, providers and employers.

c. Our levers, combined with these selective interventions, may be insufficient to meet expectations.

   Mitigation: we will work closely with DfE and others in government to determine the scope of their ambitions for OfS in this area and re-calibrate our work if this is needed to meet expectations.

Paper publication date

43. Subject to the Board's agreement of this paper, it can be published according to our standard publication procedures.