INDEPENDENT REVIEW OF UNIVERSITIES AND GROWTH: PRELIMINARY FINDINGS

Introduction

1. In the spring the Government invited me to undertake an independent review to explore how universities can support growth by working with organisations such as Local Enterprise Partnerships (LEPs), as the local bodies responsible for setting strategies to drive economic growth across the country[1].

2. In these preliminary findings I outline the themes which have emerged from the evidence-gathering phase of the Review, and which I intend to develop in the final report of the Review at the end of the summer. I also set out in more detail the implications of these for the production of Strategic Economic Plans by LEPs, on which the Government is shortly to issue guidance. In addition, to assist LEPs in developing their plans I am presenting over forty heat maps showing locations of economic activity in the sectors in the Government's Industrial Strategy, UK universities ranked in the top 200 in the world in Science, Technology, Engineering and Mathematics, and centres undertaking research on aspects of the Industrial Strategy "Eight Great Technologies". These are useful, but also only as good as the publicly available data sources on which they are based: in particular, the classifications used to produce them cannot do justice to the granularity of economic and research activities. The maps will benefit greatly from input from academic and commercial experts, so that improved versions can be included in the final report of the Review[2].

3. One hundred and fifty one responses to the Review's Call for Evidence have been received. I am very grateful to everyone who responded, as I am to all those who have given up their time to attend one of the six meetings I have had with stakeholders from universities and LEPs across the country, or to join one of the meetings with members of the Review team. I would also like to thank Universities UK for their help in analysing and summarising responses from universities. The final report of the Review will give details of the responses to the Call for Evidence and meetings with stakeholders.

Part 1: Emerging Themes

Sectoral strengths and clusters are a sound starting point for creating regional growth, and this implies collaboration between LEPS and Universities across the country…

4. In the Call for Evidence I put forward the hypothesis that the strongest basis for regional economic growth is activity rooted in a sound understanding of a locality's economic advantage.

[1] As in the Call for Evidence I use the term "university" broadly, including eg publicly funded research taking place on Science and Innovation Campuses and other Research Institutes.
[2] Comments on the heat maps should be sent to the Review mailbox (universitiesandgrowth@bis.gsi.gov.uk), by 26 July 2013.

"Hypothesis 1: The strongest basis…. locality's comparative economic advantage. The local economic partners within the Plymouth area have increasingly come to recognise this fact in more recent years..." Plymouth Manufacturers' Group

5. Many respondents endorsed this hypothesis. In work since then and in discussion with stakeholders this has crystallised into the proposition that understanding of sectoral strengths, including clusters of associated activity is the right starting point for development of regional or local growth policy. The challenge then is to identify the sectoral strengths which offer opportunities to a given region, what are the local implications and how best to maximise the resulting benefits – which will probably involve working in partnership with other localities. I contrast this with regional growth policy in recent decades which has tended to take this or that particular geographical unit as a starting point.

6. This is more than an academic distinction. Place is important because economic activity has to happen somewhere. However administrative geographical units do not necessarily fit with economic activity linked to sectors. A number of responses to the Call for Evidence and our own work have highlighted this and the fact that sectoral strength is usually distributed across a number of locations. The maps at Annex A which show locations for research centres and industrial activity in the nuclear sector provide an illustration of this.

7. This underlines the importance of collaboration between universities and LEPs in different parts of the country. There are many examples of this sort of collaboration already, and more should be possible – England is smaller than the areas covered by some sectoral clusters in the USA. In the final report of the Review I will set out ideas on how such collaborations might work including how they might be supported by relevant national agencies. I make some suggestions below, in relation to the LEPs' preparation of economic plans during the summer.

In Yorkshire universities have a single contact point for the four LEPs in the area and a specific resource to encourage, co-ordinate and deliver such interaction. This allows LEPs to source expert information and the appropriate contact easily for each higher education institution. This is facilitated by Yorkshire Universities, a regional association of 11 higher education institutions.

8. In the Call for Evidence I drew attention to the Government's Industrial Strategy. I would not expect this collaboration to be confined to the sectors and technologies in the Industrial Strategy. We should not assume that we know what the technologies and sectors of the future will be, or that the propositions in this document are not applicable to other existing sectors such as the creative industries, for example. The Industrial Strategy must not be a means of setting in permafrost a 2012-13 perception of key future sectors and technologies. Indeed, I hope that as the Industrial Strategy is developed

further more thought will be given to how it can offer support to tomorrow's technologies – those which are yet to come clearly over the horizon, and often where our most innovative SMEs are to be found.

Universities can play a stronger role in realising the economic benefits of research insights for localities and the Industrial Strategy…

"We feel it is important to consider mechanisms to support growth opportunities that are of a greater scale than one single LEP area, for example those highlighted in the Industrial Strategy. The capacity, focus and capability of each LEP is variable… given the number of organisations working in this space… there is potential for fragmentation and duplication." The N8 Research Partnership

9. Evidence to the Review has emphasised the heterogeneity of both universities and LEPs (and LEP strategies), and of the LEP areas. These differing circumstances will need different models of university-LEP interaction. I do however agree with those respondents who stressed that for many LEPs producing a robust economic development plan which can be given practical effect represents a very demanding challenge.

10. LEPs were established in England as locally-developed, voluntary partnerships. They are business-led, which is an important asset in effectively catalysing local partners to progress economic growth and distinguishes them from previous models. There are 39 and their resourcing is modest (£500,000 pa each for staff etc). Many have no inherited experience or established ways of working. They are having to fill these gaps, create networks, etc afresh. Many of the LEPs I met explained how they need to find others to help them meet the demands placed on them by government departments, which have continued to grow since they were originally established. A great deal of hard work has been done and many have made substantial progress, but others have further to go. Several told me that more is being asked of them than they are equipped to deliver.

11. In my view a clear understanding of how LEPs can best operate is yet to develop, and a mechanism for LEPs to be able to adopt best practice and establish an operating model that supports greater collaboration not only with universities but also with other LEPs is still to appear. The success of LEPs will depend in part on continuing thoughtfulness about their resourcing and the number of tasks they are asked to deliver, and about their role. Successful LEPs will be able to work with and through others such as local authorities to devise sound economic strategies. However in general LEPs are neither designed nor resourced to implement such strategies, and so should not be accountable for their implementation.

12. On the other hand universities are among the largest, and sometimes the largest, economic entities in the LEPs' areas. Moreover they will frequently be very important sources of economic advantage – through research insights, provision of a vibrant technology base, international reach which can support exports and help attract inward investment, supply of skills,

support and advice to local businesses – so that they will be central to Strategic Economic Plans. They have a strength and weight that LEPs lack. They have an international reach through their overseas presence, alumni, business engagement etc that offers an under-utilised resource. Many of the evidence submissions have described the contribution universities have already made, from sitting on LEP boards – which should be the norm in my view – to drafting LEP plans.

> *"We are working with HE partners on the development of 'smart specialisation' plans for our world-class growth sectors; this work will underpin our local European Investment Strategy that we will deliver to Government at the end of September 2013."* Enterprise M3, the Local Enterprise Partnership for mid and north Hampshire and southwest Surrey

13. The Review will examine further the role that universities can play, both in helping to formulate LEP plans and as cornerstones of those plans for regional growth. But there is also an implied role for universities on the wider stage of the Industrial Strategy that needs to be considered.

14. The Industrial Strategy implies investigating opportunities to enhance the role of universities in contributing to growth. Universities should be central to most of the sectoral strategies because continuing innovation derived from research insights (alongside other university inputs to innovation) will be a prerequisite for the success of these sectors, as it will for all the technologies in the Industrial Strategy.

15. Universities generating cutting edge research and resulting insights may be likened to the tip of an arrow, with the arrowhead behind it representing the economic activity enabled by research-led innovation. Maximising the size of these arrowheads and their economic benefit to the UK, specifically, is fundamental to both sectoral and local growth strategies.

16. Some stakeholders have suggested to me that there is a policy tension between the “top down Industrial Strategy” and “bottom up local growth plans”. There is certainly a coordination challenge in achieving the common overall goal of economic growth. Universities, rooted in localities but engaging nationally and internationally, and central to local and sectoral growth offer a means of bringing these different approaches together.

17. In the next phase of the Review I intend to examine further the scope to enhance the role of universities in relation to local economic growth and the Industrial Strategy. I am mindful that key questions will include how far universities are fitted to an enhanced role, and the importance of avoiding any adverse impact on their research and teaching functions.

There is room to improve SME benefit from universities in terms of talent and know how…

18. During the Review’s evidence-gathering phase I have seen a wide range of examples of very successful practice in making university research

and advice accessible to SMEs. Benefits to SMEs come in various forms including enabling entrepreneurs to launch businesses, consultancies, student internships, year long student placements, access to facilities, joint working on business and technological problems, running of business focussed networks, and brokering facilities. Since the Review was launched the Higher Education Funding Council for England (HEFCE) has published analysis showing an 11% increase in activity benefitting SMEs which gain a competitive advantage from their association with universities[3].

19. I have also seen evidence that SMEs find universities difficult to engage with, often because SMEs lack the time to work out how they can make effective contact. It has also been put to me that universities may be able to help medium-sized firms with the potential to enter or grow their export markets to overcome some of the distinct difficulties they face.

20. Since the Review started Lord Young has published *Growing Your Business*, the second part of his report on small firms[4]. One of his findings is that business schools could do more to help small firms to grow, and he describes an initiative the Association of Business Schools is to lead to help bring this about. Lord Young's finding chimes with what I have heard during meetings with stakeholders, where I heard examples of university business schools having a transformative effect on SMEs through practical advice and support on running and developing the business.

> *"The Goldman Sachs 10,000 Small Businesses programme has shown that tremendous growth can be achieved by companies in any sector with good leadership skills."* Aston University

21. This is an important subject. Strengthening our innovative SMEs is one of the ways in which we may be able to meet a challenge I posed in the Call for Evidence, namely how to raise our game in securing more of the commercial benefits of breakthroughs in UK universities for the UK. In the next phase of the Review I intend to explore this further, including the work of university business engagement units and also whether there are opportunities to increase the contribution made by business schools, recognising that many business schools are largely self-funded and thus financially independent.

Incentives, and national organisations supporting research, innovation and growth, can be better aligned to deliver to their full potential for the Industrial Strategy and for local growth…

22. There are several government or government-funded organisations whose roles make them central to the Review. These include the Research Councils and HEFCE, who between them provide the great majority of public

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[3] Analysis by HEFCE of the twelfth annual Higher Education – Business and Community Interaction (HE-BCI) survey
http://www.hefce.ac.uk/news/newsarchive/2013/name,81928,en.html

[4] *Growing your Business: a Report on Growing Micro Businesses – the Second Part of the Report on Small Firms.* Lord Young, May 2013.

money for universities. The Technology Strategy Board and UK Trade and Investment (UKTI) have critical roles in realising the economic potential of research and sectoral strengths and clusters around the country.

23. Apart from UKTI these bodies are important funders of research and innovation. During meetings with stakeholders I have heard concerns about the fragmentation and complexity of funding arrangements. Sometimes this has focused on the requirements attached to European funding sources, but it has not been confined to this. Concerns include the time involved in preparing applications for funding and the number of funding streams. It has been suggested to me that for research-based SMEs demonstrating compliance with requirements to access funding intended to benefit such companies can be a material hurdle in its own right.

"In this country you don't just have to be an entrepreneur: you have to be an endurance entrepreneur." Meeting with universities and LEPs, Newcastle, April 2013

24. Streamlining of funding, while continuing to ensure quality of funding decisions, is an issue I will examine in the next phase of the Review. I am also concerned that funding should give aligned and optimal incentives to recipients. Alignment of incentives goes to the alignment of the objectives of the funding organisations, and measurement of performance against metrics which express the outcomes that matter. I would expect the objectives of these organisations to reflect the Government's Industrial Strategy and its policy of supporting local growth so that, allowing for the differences arising from their distinct functions, there is an overarching commonality of purpose in relation to supporting growth through the Industrial Strategy and local growth. These considerations about metrics and objectives are not particular to funding functions and apply to UKTI too, although it is not a funding body.

"While innovation and industrial strategy are – rightly – retained as national-level functions, the difficulty is…the confused space between national and local levels." Liverpool City Region Innovation Board.

25. In my meetings with stakeholders I have also heard concerns that national bodies are insufficiently connected to localities and their priorities. How are national organisations adjusting to reflect these local dimensions, or the regional centres of activities within the Industrial Strategy? This is a question I will examine in the next phase of the Review.

Emerging Themes: Next Steps

26. In a number of places I have indicated where I intend to develop these emerging themes for the final report of the Review. I am very much looking forward to producing that report: the evidence-gathering phase of the Review has only reinforced my belief that this is a moment of opportunity in this field – partly because of contextual factors such as the development of the Industrial Strategy, but also because of the enthusiasm and sense of opportunity displayed by so many of those I have met since the Review began.

"While the UK's Universities are of extraordinary quality and are definitely open for business, there is a sense that we have only just started to unleash the potential." The Technology Strategy Board.

Part 2: LEPs' Preparation of Strategic Economic Plans

27. LEPs are currently developing their strategic plans. The Government is to issue guidance on their plans for spending the Single Local Growth Fund, and the European Structural and Investment (ESI) funds 2014-20.

28. Approximately €6bn of ESI funds is to be allocated to English LEPs in June 2013 for the period 2014-2020. A further €3.5bn will be allocated to the rest of the UK. Up to €1bn of this will be prioritised for innovation and the commercialisation of Research and Development (R&D). The European Commission requires that the plans to spend this money should conform to a methodology called "Smart Specialisation."

Smart Specialisation.
Smart Specialisation seeks to ensure that proposed actions are based upon sound evidence that properly reflects the comparative advantages of the physical and human assets of particular places in the global economy. It emphasises the need to ensure that activities are fully integrated in the local economy and its supply and value chains. It helps to build connections of ideas, finance and trade with similar activities elsewhere. It promotes also the use of enabling technologies that can transfer and add value between related sectors.

A sound local economic plan must be informed by a national evidence base…

29. I welcome Smart Specialisation, which reflects my own proposition that regional growth may best be rooted in sound understanding of a locality's comparative advantage. This understanding must be based in a clear-eyed and rigorous analysis which is benchmarked against other localities so that it exposes genuine local advantages and, where markets are global, tests these against global criteria. In life science, for example, a case for investment will need to show potential to be among the best in the world, not merely the best in a region of England. In addition a sound assessment of local comparative advantage requires awareness of others' strengths to inform comparison and to identify opportunities for collaboration. I would expect LEPs to identify a small number of priorities for local investment strategies for innovation in line with the genuine potential for growth. These priorities will be the areas in which local places can realistically hope to excel.

30. LEPs need an overview of the whole country if their plans are to be both individually sound and collectively coherent, and thereby deliver best value for their investment of public money in R&D and innovation. For these reasons I commissioned the production of heat maps with the aim of giving LEPs a starting point for conducting an informed assessment of local

comparative advantage, including where there are centres of research strength and also of associated economic activity in the sectors and technologies in the Industrial Strategy.

31. The maps presented in the annex at the end of this document show locations of economic activity in the sectors in the Industrial Strategy. They show UK universities ranked in the top 200 in the world in Science, Technology, Engineering and Mathematics. They also show centres undertaking research on aspects of the Industrial Strategy "Eight Great Technologies".

32. It has not been possible to find a methodology (other than collecting opinions) to identify centres where there is excellent research relevant to most sectors in the Industrial Strategy, and so this is not mapped. I find it unsatisfactory in principle that research centres relevant to Industrial Strategy sectors cannot be presented on a robust and accepted basis. For LEPs and SMEs this lack of transparency will make things more difficult in practice too. In addition there is a sense in which it is misleading: maps based in academic classifications (such as the attached STEM subject maps) do not do justice to centres which excel in some specific, often applied, forms of research. I think it important to overcome these difficulties as far as that is possible, in order to establish a robust basis for identifying these centres, and also those excelling in more focussed subject areas. I would welcome views on what might be a robust basis for identifying these research centres[5].

33. The annexed note which introduces the heat maps explains the methodologies used. At this stage the maps are a work-in-progress because they have been produced in a limited time, without the opportunity to consult on them. They will benefit from the comments of all those with relevant knowledge, and I would welcome views on their content and methodology so that improved versions can be produced[6]. In the final report of the Review I aim not only to present refined versions of these maps, but also heat maps showing all clusters, ie whether or not the activities are related to the Industrial Strategy.

34. LEPs will want to seek to understand the quality and type of employment revealed by the heat maps, and to keep in mind that the maps have had to draw on two different kinds of categorisation: academic subject classifications, and Industrial Sector sectors and technologies. Nonetheless I believe that, used in conjunction with other available evidence (for example, local knowledge of university strengths), they will be a useful resource for LEPs in identifying sectoral priorities for their economic strategies.

European Structural and Investments funds are an opportunity for Local Enterprise Partnerships to make the most of what universities can do….

[5] Comments on the heat maps should be sent to the Review mailbox (universitiesandgrowth@bis.gsi.gov.uk), by 26 July 2013.

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"There is no doubt that, when carefully managed, European funds can be a major enabler of productive collaborations between industry and universities, particularly in regions where SMEs tend to have limited resources for investment and R&D." Million+

35. I have already commented on enhancing the role of universities in contributing to growth, and on the expertise they may be able to offer LEPs. ESI funds (and any other funds which may have an innovation or R&D component) offer LEPs an opportunity to invite universities to play this enhanced role.

"Any plans that LEPs are required to produce should include in their guidance the need to engage with universities as key economic partners." Universities UK.

36. LEP plans could achieve this by directing a large share of innovation money towards excellent universities and research centres, but within a framework which includes development of new infrastructure where university/business interactions can be maximised and economic outcome metrics, and which ties the future flow of funds to these measured outcomes. I envisage outcomes expressing the goal of maximising the economic benefit from the research being supported, such as numbers and value of jobs, underpinned by a plan indicating how these will be achieved, addressing questions such as supply of skills, support for supply chain SMEs, increasing business levels of business investment in R&D and intangible assets, etc. These outcomes underline the breadth of the contributions that universities can make – realising the economic potential of what I have called “arrow tip research” will engage functions such as providing skilled people, supporting local businesses, running business focussed networks, etc.

37. LEPs have few resources, and I would expect most to look to universities to write this sort of plan. In addition ESI Funds are subject to complex procedural requirements which impose an appreciable compliance burden. More broadly, I would expect universities to want to own preparation of plans that they would have a central responsibility for delivering.

Collaboration is essential…

‘‘It is essential that we provide LEPs with the ability to foster connections with networks of universities with the right specialisms to support their growth plans. Collaborations between universities to ensure broad coverage where it benefits the local economy are important, so a university in a particular LEP area should not focus exclusively on that area and equally allow other universities from out of the area to transfer their expertise into that area too”. Buckinghamshire Thames Valley LEP.

38. There are 39 LEPs, all tasked with producing local economic plans. This creates risks of sub-optimal duplication on the one hand, and missed opportunities on the other.

39. The duplication risk arose repeatedly during my meetings with stakeholders. England should not have twenty or thirty bioscience parks. The mitigation of both risks is the same: the creation of mechanisms to enable LEPs to consider the characteristics of other LEP areas too, and facilitation of collaboration between LEPs (and between universities).

40. The heat maps show very clearly that sectors are typically characterised by centres of economic activity in a number of locations around the country, and the same is true of centres of excellent research. I would encourage LEPs to connect with others who have research or economic centres in the same fields, drawing on the annexed maps and other evidence to identify where in the country activities should be joined up to establish networks that maximise the economic benefits of funding.

41. I would expect some LEPs to have several separate sector-centred collaborations with different sets of partners according to the geographical characteristics of each sector. These connections should involve universities as well as LEPs and universities may often be best-placed to take the lead in bringing parties together.

42. Multi-party collaborations of different sorts of institution in different parts of the country are a significant organisational challenge. There is often likely to be a good case for agreeing that one institution should lead the collaboration, and make the running in producing a plan for agreement by all.

43. I have heard suggestions to establish an oversight forum of national experts to guide LEP investment decisions in R&D commercialisation, in order to help LEPs to set the best priorities and pull through the right proposals. Thought is needed as to how this might work, including whether it should simply be a resource available to LEPs who wish to use it or something a little more formal. It is an idea I will explore it further in the next phase of the Review.