Great Expectations?

Universities as civic anchors for local innovation and development

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The photograph on the cover page shows Newcastle University's latest innovation 'flagship' building, The Catalyst (left). Built at a cost of £50m as part of the £350m Newcastle Helix development on the former Newcastle Brewery site, it is home to the National Innovation Centres for Ageing and Data. Opposite is the People's Kitchen, founded in 1985 to feed the homeless and the hungry of Newcastle. It provides 40,000 hot meals per year and relies on volunteers and donations for its operation and survival.

ABSTRACT

The relative importance of universities as local anchor institutions, coupled with the prevailing economic conditions since the financial crisis and subsequent austerity era, has led to increasing demands from policy makers for publicly funded universities to be proactive drivers of innovation and development in the places in which they are located, particularly in less developed or peripheral regions. This has led to a resurgence of interest in concepts such as the civic university in understanding the contributions universities might make to local social and economic development.

This context statement describes a body of research conducted between 2011 and 2019 that explores, and culminates in challenging, many of the orthodoxies underpinning the policy rhetoric around the role of universities as civic anchors in contributing to innovation and development in the places in which they are located. It explores these issues through three main themes; universities as actors in local and regional innovation systems; the nature of the global 'civic' university; and universities as local anchor institutions. It highlights gaps in the existing literature, lays out key research questions and illustrates how the research findings presented here have attempted to address them.

The findings from this research argue that policy makers and even universities themselves may be over-estimating the hegemony of universities in contributing to and driving local innovation and development, whilst at the same time underplaying the significant impacts of internal tensions and external barriers on their ability and willingness to engage. While not suggesting they have no direct role as local actors, it rather contends that a more realistic, honest understanding of the limitations of universities' contribution as local civic anchors coupled with a more nuanced and context sensitive approach to policy design might lead to more mutually beneficial outcomes for them and the places in which they are located.

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1.0   INTRODUCTION – THE NATURE OF THE POLICY PROBLEM

The importance of universities in supporting regional development and innovation has long been promoted by policy makers, particularly in less developed or peripheral regions which often lack the institutional density or 'thickness' of core regions.   An enhanced and deeper role for universities in regional development is strongly reflected in recent strategy and policy at the European level e.g. Europe 2020[1] and its flagship initiatives like Innovation Union[2]. It is also being played out at national policy level in many European states (e.g. the 2013 Witty Review[3] in the UK) as well as at the sub-national level, where universities are increasingly expected to be proactive drivers of inclusive growth and development in the places in which they are located. They are often one of the largest institutional anchors, particularly in economically lagging places, and arguably are less prone to political volatility than other public policy anchors. These trends have been accelerated by the prevailing economic conditions since 2008 and subsequent austerity era from which universities are perceived by some to have escaped relatively unscathed.

This has resulted in increasing demands from policy makers for publicly funded universities to 'step up to the plate' through greater and more explicit contributions to local social and economic development, which has led in part to a resurgence of interest in concepts such as the 'civic university' in recent years. However, the findings presented here argue that this has led to policy makers and even universities themselves falling into the trap of over-estimating the hegemony of universities in contributing to and driving local innovation and development, whilst at the same time underplaying the significant impacts of internal tensions and external barriers on their ability and willingness to engage. That is not to suggest they have no direct role as local actors, but rather to contend that a more realistic, honest understanding of the limitations of universities'

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[1] https://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf
[2] https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication-brochure_en.pdf
[3]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/249720/bis-13-1241-encouraging-a-british-invention-revolution-andrew-witty-review-R1.pdf

contribution as local civic anchors might lead to a more mutually beneficial relationship between them and their places.

This context statement summarises a body of work that explores, and culminates in challenging, many of the orthodoxies underpinning the policy rhetoric around the role of universities as civic anchors in contributing to innovation and development in the places in which they are located. The demands and expectations placed upon universities, especially in peripheral or lagging regions, to contribute to their local area may even be unrealistic to begin with. Thus, the very assumptions underpinning the design of policies and strategies for local and regional development, and the role of universities within them, may well be unsound from the outset. This is further exacerbated by an over-reliance in policy design on the duplication of models of success from other places that this research suggests are usually impossible to replicate in a different policy and place context.

It is not the contention here that universities have no role to play in or contribution to make to this agenda; however they are far from the silver bullet that some commentators and policy makers might wish them to be, and seeing them as such can be damaging to both universities and their places by leading to the design of inappropriate or misguided policies. There are no quick wins in regional policy, particularly in peripheral regions trying to break the cycle of industrial decline and its subsequent social and economic effects. Good policy requires a long-term perspective and a sophisticated understanding of the complex interactions internally and externally that impact on social and economic development. Universities are clearly a part of their local landscape, but caution should be taken in placing too much emphasis on the extent of the contribution they can realistically make, while the internal and external forces that restrict their ability and willingness to engage should be understood and embedded in policy-making, rather than being seen as a set of mere hurdles to be easily overcome.

This agenda is not going away – it will only escalate in the policy and practice discourse over the coming years. The inevitable turmoil of Brexit, increased political polarisation and further widening of the disparities between economic cores and peripheries are likely to lead to increased expectations and dependency on universities, particularly in institutionally and financially strapped places. However, the danger is that this might be a dead-end road that will ultimately harm universities themselves and the (struggling) places in which they are located, or at least, serve to further widen the gap between the higher education haves and have nots.

Conducted between 2011 and 2019, this body of research has introduced new conceptual frameworks to describe, understand and challenge normative positions among policy makers, local leadership and universities themselves about the role of universities as local anchors and economic actors. It has questioned the rhetoric around models of engaged (civic, anchor) universities which offer idealised or even superficial responses to the policy problem, as well as the underpinning assumption of the primacy of universities in contributing to regional development and innovation, especially in peripheral places.

This context statement will explore these issues through three main themes; universities as actors in local and regional innovation systems; the nature of the global 'civic' university; and universities as local anchor institutions. It will highlight gaps in the existing literature, lay out key research questions and illustrate how the research findings presented here have attempted to address them and illustrate its contributions to and impacts on the literature, policy and practice in each thematic area.

The research summarised in this context statement suggests treating with extreme caution a glib approach that sees universities as the panacea to the economic and social ills which are the result of decades of naïve (at best) policy making which has failed to effectively address growing disparities within and between places, or acknowledge the internal and external complexities

generated from involving universities in local development. However, it does suggest some possible mutual benefits from more nuanced, context-specific and sufficiently funded policies.

2.0   BACKGROUND AND CONTEXT

2.1   Universities as Civic Anchors and Actors in Local Innovation and Development – A brief historical overview

The question "what are universities for?" has become an almost metaphysical one over the past century. Cardinal Newman's 'idea' of the university was of a community of thinkers, learning for learning's sake rather than any instrumental purpose, covering a broad range of liberal arts rather than narrow, scientific specialisms (J.H. Newman, 1952/1982). While this philosophy might have resonated with faculty and students housed in the dreaming spires of the ancient universities established in the mediaeval era, it was directly challenged by the founding of the so-called English Civic Universities and US Land-Grant Colleges throughout the 19th Century (Goddard, 2009; McDowell, 2003). The primary function of these universities was to provide the research and skills for the new industries that were emerging as a result of the industrial and agricultural revolutions, as well as the teachers and medical professionals needed to ensure an educated and healthy workforce (Delanty, 2002), and as such, heralded a move away from a Newmanist model of higher education.

While there has historically never been a singular accepted European model of higher education, the Humboldtian principle which emphasises the 'union of teaching and research' in academic work was dominant in German speaking Europe and highly influential in parts of Eastern Europe from the late 1800s to the 1950s (Healy et al., 2014). This principle contends that the function of the university was to advance knowledge by original and critical investigation, not just to transmit the legacy of the past or to teach skills (Anderson, 2004). This philosophy of higher education arguably led to the emphasis on collaborative and applied research for the benefit of industry, the military and wider society in places that adopted the Humboldtian model. This was in contrast to the Newman model which advocated a distinction

between discovery and teaching or the Napoleonic model that dominated in Southern Europe, where higher education was regulated and controlled by the state.

Since the middle of the 20th century, the centralisation of higher education policy and increased public funding for research (Goddard, 2009, ibid) saw European universities move away from a focus on meeting the skills needs of their local economies, while in the US decentralised higher education and the dependence of public and private universities on local sources of funding meant that collaborative research relationships with industry became increasingly common (Mowery, 1999). Thus, the focus of universities' links with the 'outside world' over the past fifty years has tended to be centred around the exploitation of research with the approach being an assisted linear model based on technology 'push' (European Commission, 2011). This approach resulted in a considerable emphasis on the so-called 'triple helix' (Etzowitz, 2008), which emphasises how the links between university, industry and government can drive innovation. In this framework, the stress has been on the role of research, particularly in scientific and technological fields. The emergence of the high-tech industries centred around Silicon Valley on the West Coast of the US was seen as the embodiment of the success of this approach and one that policy makers around the world have sought to replicate (often with little success). This has led to a concentration of effort and resources on supporting collaborations between businesses and universities which generated 'hard' outputs such as patent applications and business spin offs, often to the neglect of developing the potential for 'softer' impacts such as human capital and social development (Science|Business Innovation Board, 2012).

Although the landscape of higher education in Europe remains heterogeneous, the 20 years following the Bologna Process[4] have seen significant changes in cooperation between universities

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[4] The Bologna Process was launched in 1999 by the Education Ministers of 29 European countries in an attempt to bring coherence to higher education systems across the continent.

and business (Technopolis, 2011) and there is a growing acceptance across member states of the "new relevance" of universities to social and economic development (European Universities Association, 2006). This is underpinned by the Europe 2020 Growth Strategy and especially the emergence of the policy of smart specialisation[5] which gave increasing prominence to the role of universities not only in terms of the supply side (i.e. of research and skills) but also in supporting the demand side through capacity building and supporting the governance of regional innovation (Goddard et al., 2013). By the end of the first decade of the 21st Century this emphasis in public policy on the role of universities in explicitly contributing to social and economic development had continued to grow due to a number of concurrent factors (Healy et al., ibid). Some of these were driven by external global forces and trends, some were specific to local, regional and national policy contexts and some were driven by changes in how universities are internally managed and led. This trend, if anything, accelerated in the 2010s and shows no evidence of slowing down as we enter the third decade of the century.

This remains a policy conundrum at the European level and even beyond, led by organisations such as the OECD with their reviews of university-region collaboration around the world, and is arguably most keenly felt in the UK and England in particular. This has manifested itself in recent years with UK Government initiatives such as Science and Innovation Audits (aimed at mapping regional, largely university-led, research and innovation strengths) and the 2019 Civic University Commission. At the same time the launch of a range of new funding schemes (e.g. the Industrial Strategy Challenge and Strength in Places funds) imply a leading role for (research intensive) universities in addressing persistent and pervasive regional inequalities; most recently manifesting itself in policy terms as the 'levelling up' agenda.

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[5] Smart specialisation is the new iteration of European regional innovation strategies the development of which became an ex-ante conditionality for regions to access European Structural and Investment Funds in the 2014-2020 programming period.

2.2   Drivers of University-Place Collaboration

At a global level, the aftermath of the 2008 economic crisis ushered in a decade of austerity in public finances, leading to increased demand for explicit evidence of the returns from or value of public investments, including on research and higher education. At the same time international policy makers began to describe the emergence of 'grand challenges' (e.g. climate change, ageing, terrorism, sustainability) that are global in their scale and impact and which orthodoxy suggests cannot be solved by government, academia or business alone, but require a multi-disciplinary and collaborative approach which includes the mobilisation of universities and civil society (Brennan et al., 2004).

There is also pressure from external forces (political and financial) at local and regional levels in motivating universities to become more engaged (Holland, 2001; Benneworth et al., 2017). Benneworth (2012) looking at drivers of engagement in three European regions points to 'crisis drivers' (e.g. economic decline) that stimulate universities to make a public commitment to supporting the region. At the same time local communities and taxpayers facing tough economic conditions might question the value of universities, especially in places where their direct benefits are less apparent (e.g. low levels of local student recruitment, weak levels of graduate retention). This has led to increasing expectations on universities to be proactively engaged in supporting their local area (Cochrane and Williams, 2013) beyond the passive direct and indirect effects of their presence (Power and Malmberg, 2008).

2.3   Challenges for University-Place Collaboration

Despite the increasing prominence given to the role of universities in social and economic development, research reports and academic studies consistently find that practices are highly fragmented and uncoordinated (European Universities Association, 2007). There are both internal and external challenges to the effective engagement of universities in local and regional development (Kempton, 2019). Some of these are intrinsic and structural, often driven from a

national or even supra-national level and therefore difficult to overcome at a local scale. The internal management of universities is in many cases heavily shaped by national funding and regulation of higher education, which incentivises and rewards achievements of esteem indicators for research and (to a lesser extent) teaching excellence (as measured by rankings and league tables) over engagement. Externally, the nature of the place in which the university is located (economic conditions, capacity of the actors in the regional innovation system etc.) can have a profound effect on the contribution even the most well-meaning and motivated universities can make.

2.3.1 *Internally derived challenges*

Internal tensions in university systems and processes also can act as an impediment to academic engagement (Foray and Lissoni, 2010). Marmolejo and Pukka (2006) have explored the internal conflict between achieving esteem indicators for teaching and academic excellence and regional engagement, concluding that excellence usually wins. Benneworth (2012, ibid.) also points to various internal structural factors which, despite pronouncements from senior institutional leaders of their commitment, lead to regional engagement being seen as undermining the excellent, world-class reputation of the university. D'Este and Patel (2007) show that the individual characteristics of researchers have a strong impact on the nature of engagement. They go on to suggest that characteristics of individual institutions also play an important role, for example the size of departments, internal policies and support mechanisms for collaboration.

Incentives, rewards and promotion criteria in universities (Lach and Shankerman, 2008) are important internal mechanisms in stimulating academics to engage with external partners in producing and sharing research. Stanton (2008) suggests that promotion criteria is probably the most important of these, but one which to a large extent still rewards and favours teaching and research performance over knowledge transfer or regional engagement activities. This suggests that engaged academics are often acting in spite of, rather than because of, institutional mechanisms. While policy makers have sought to motivate universities to become more engaged

in local development and innovation through funding and other incentive schemes, these generally lack the scale and significance to sufficiently overcome the internal management issues and tensions (Kempton, 2016) which have a substantial impact on their willingness and ability to engage (Trippl et al., 2015).

2.3.2 *Externally derived challenges*

The literature and evidence exploring the role of universities in local collaboration points to a range of external factors that limit the potential of (even the most well-meaning and motivated) universities playing a central and valuable role in local and regional development. Two of the most critical of these constraints are the nature of the 'place' and the impact of the policy environment (Edwards et al., 2017).

The nature of the place

The extent to which the research being undertaken in universities matches both the local industrial structures and the potential of local firms to apply it is a critical factor in realising the 'promise' of regional economic development policies and the role of universities within them (Cohen and Levinthal, 1990). Harris et al. (2013) argue there is often a mismatch between the research taking place in universities and the innovation requirements of local firms. But even where there might be overlaps between research specialisms and the nature and make-up of the regional economy, insufficient levels of demand-side capacity in the local private sector creates a 'wicked problem' for policy makers and regional actors (including universities). The local impact of university research is severely limited if the business sector has insufficient capacity to absorb and utilise the research outputs (usually referred to as absorptive capacity) of their local universities for knowledge-led growth (Veugelers and Del Rey, 2014).

Oughton et al. (2002) characterise this as the 'innovation paradox', which refers to the contradiction between the need to invest comparatively greater amounts of public funds in

innovation in peripheral regions but where capacity to absorb these funds and invest in research is lower than in more developed places. This tends to reinforce the dominance of successful regions and further widen the gap between them and peripheral or lagging ones as research outputs from the former are absorbed by firms in the latter. This has also been described as the 'European paradox' (European Commission, 2007), evidenced by weak correlations between research quality and competitiveness, particularly in comparison to the USA. This is attributed to weak external demand-side factors due to sub-optimal capacity in local firms as well as insufficient supply-side internal drivers (such as incentives and support mechanisms) discussed in the previous section.

A further aggravating factor in peripheral places is one of institutional thinness (Tödtling and Trippl, 2005), which can be characterised as regions with weak or fragmented industrial clusters and a lack of critical mass of the kinds of organisations (public and private) that support innovation and development (Zukauskaite et al., 2017). This can lead to an over dependence on universities to play a dominant role in the local ecosystem, and even an expectation that they fill the gaps created by a paucity of other regional innovation actors (Goddard et al., 2014) which may further weaken the delivery of their 'core' higher education missions of teaching and research. Brown (2016), using analysis of Scottish universities' performance in their regional innovation systems, warns of the risk of this leading to universities becoming "quasi economic development agencies" and sharply contests their competence to play this role.

Impact of the policy environment

Higher education policy is often based on national rather than regional needs (Benneworth et al., 2007). Students, particularly at research intensive, highly ranked universities tend to be recruited nationally and internationally. Thus, prioritising teaching and research around narrow, place-specific demands for human and knowledge capital could be seen to limit a university's ability to recruit students and attract research funding. As discussed earlier, incentives and rewards for

generating high quality research don't tend to esteem working locally. Indeed, universities with an explicitly local or regional focus might be seen as 'second rate' by national policy makers whose concern is achievement against national and international measures of success (Hazelkorn, 2016). A further challenge is that policy makers (and even many commentators) tend to treat universities as relatively homogenous institutions, and fail to recognise the significant diversity of university types (Uyarra and Flanagan, 2010) which is exacerbated by the different policy and place environments in which they operate (Edwards et al., 2017, ibid).

2.4   Conclusion

Policy makers and even universities themselves have perhaps fallen into the trap of assuming the importance of universities in contributing to and driving local innovation and development whilst at the same time underplaying the significant impacts of internal tensions and external barriers on their ability and willingness to engage. That is not to suggest they have no direct role as local actors, but rather to contend that a more realistic, honest understanding of the limitations of universities' contribution as local civic anchors might lead to a more mutually beneficial relationship between them and their place.

This discussion will be taken forward by exploring three overarching themes and research questions which have been the subject of the supporting material underpinning this context statement. These are;

What are the potential roles, contributions and limitations of universities' inputs to local and regional innovation, especially in peripheral places, and what are the impacts of these on policy design?

How can the concept of a civic university be defined and how does the internal management of universities impact on the realisation of a (genuine) civic mission?

How can a more nuanced understanding of university-place relationships be developed in order to ensure policies for inclusive growth are better attuned to the specificities of the characteristics and needs of the place?

3.0   METHODOLOGY AND EMPIRICAL EVIDENCE BASE

3.1   Overview of methodology

This research draws on the findings from 14 projects undertaken between 2011 and 2019. While each of these was a discrete piece of work, all explored one or more of the key themes and research questions set out in the previous section, and thus together can be presented as a connected and coherent body of work underpinning the findings discussed in the subsequent sections of this document. The research methods used in the projects were primarily chosen to suit the aims and objectives of each, which in some cases were mandated by the funder or dictated by practicalities (timescales, budget etc.). However, the overall methodology adopted in this programme of work can broadly be typified as Critical Realism (CR).

CR is a movement which began in British philosophy and sociology following the founding work of Roy Bhaskar (and others) in the 1970s which sought to articulate an approach to research that offered an alternative to the dominant methods underpinned by positivism or constructivism. CR does not dictate a single set of beliefs or a defined methodology; rather than asking if or how something works it asks what works, in which circumstances, why and for whom (Pawson and Tilley, 1997)? A CR approach is particularly suited to understanding complex situations, assessing (and reassessing) conceptual frameworks and in policy-focused research (Olsen et al., 2009). It can help to understand thorny issues and hard to measure constructs (e.g. in the case of this work, the 'civicness' of a university, or the extent to which it is engaged with its local area) and build detailed pictures that allow for comparative analysis between diverse contexts. Given the nature of the focus of this work – trying to understand complex institutions operating in complex settings – and the lack of large quantitative datasets that address or provide insights into the research questions and gaps it sets out, CR was therefore selected as the most appropriate methodological approach for this research.

CR is 'method neutral' (Pawson and Tilley, ibid.), leaving the choice of data collection and analysis methods to the researcher to select, guided by what is most appropriate to test the research proposition(s). Indeed, CR research is generally highly flexible in its design compared to other approaches, with researchers using a range of techniques and methods at different points even within the same project, combining the evidence from the different sources to understand the mechanisms, processes or contexts under investigation (Edwards et al., 2014). In the case of this work, no single method would have been sufficient to explore the issues being investigated effectively. Analysis of the literature alone would not have uncovered the nuances and specificities of real-life practice and depending on (labour intensive) interviews or case studies alone would have limited the scope of the research and potentially challenged the broader applicability of its findings.

CR allows for, even encourages, the researcher to move between inductive and deductive approaches (Miller and Brewer, 2003). Induction begins with observations to develop hypotheses that are then developed into theories, while deduction begins with a theory that is then tested against empirical observations in order to confirm or reject the hypothesis. The 'real world' combination of these approaches is referred to as retroduction (Miller and Brewer, ibid), where the cycle of observation, hypothesis and theory continues until the theory is refined or rejected. This makes CR a highly suitable approach for action research (Olsen, 2009) as well as providing a coherent framework for policy-focussed research (McEvoy and Richards, 2003). The range of work described in this document required a mix of inductive and deductive approaches, was generally concerned with influencing or informing policy making and in several cases adopted 'learning by doing' action research, making CR an appropriate methodological approach for this programme of work.

However, while CR offered a suitable approach in which to position this diverse (though connected) set of projects, particularly in the way it allows the researcher to move between

theory, concept and reality, it is important to recognise the potential limitations of CR. While CR doesn't prevent the use of 'objective' (e.g. large quantitative) data sets, the nature of CR – trying to understand the nature of how things 'are' in reality and exploring complex relations and interactions – often means that qualitative methods are needed in order to capture observations of sufficient richness to effectively test a hypothesis. This often places a high reliance on individual accounts of circumstances which can be partial or biased as our knowledge of the world is inevitably 'historically, socially, and culturally situated' (Archer et al., 2016). While CR was deemed the most suitable approach for a policy-focussed body of work, Olsen (2009, ibid) warns of the danger of critical realists drifting into speculative theorising when making policy recommendations. It should also be recognised that while exponents of CR see its bridging position between positivism and interpretivism as a strength (Archer et al., ibid), it has been criticised by interpretivists as being too realistic and by positivists for not being realist enough (University of Warwick Education Studies, 2019).

Notwithstanding these concerns, CR was suitable for this research in a number of ways. It is helpful in exploring complex relations as it allows for the combination of research into surface level regularities or events with the uncovering of underlying mechanisms and structures that generate them.   In the case of this work it allowed the research to dig below the surface of generic or superficial descriptions of universities' involvement in local innovation systems as anchor institutions in their geographic location, helping to build a more nuanced understanding of the drivers, motivations and impediments that underpin them. In addition, CR allows the use of mixed methods, the possibility to link empirical observations from a range of projects with theory in order to conceptualise reality and to be flexible in the starting point for individual projects. For example, in some cases beginning with a concept and testing it through empirical work and in others using empirical findings to develop new concepts, theories and frameworks. In order to overcome some of the critiques of CR (bias, partiality etc.) the fourteen individual projects were merged into three overarching themes and drew on a range of methods and sources of evidence, which will have

helped to flatten out some of these effects. The application of CR as a methodological approach in each thematic area will be briefly discussed in the following three sections.

Table 1   Summary of empirical evidence

		Theme		
		Innovation actors	Civic Universities	Anchor institutions
Method	Literature review	Extensive review of the academic literature and policies for regional innovation strategies at the European Union level and national and regional level in six European countries	Extensive review of the extant literature on the history, nature and contemporary applications of university engagement and the concept of the civic university	Review of the academic and policy literature relating to universities as anchor institutions in local development
	Online survey	Survey of 165 universities, local enterprise partnerships and local authorities in England on the perceived and preferred roles of universities in local innovation systems	Survey of almost 2,000 academics in eight European universities in four countries (UK, Ireland, The Netherlands, Finland) on the nature, scale, barriers and drivers of their engagement activities	Survey of 110 academics from around the world on the role, contribution and context for their institution in engaging in place-based collaboration
	Interviews	Almost 50 interviews with stakeholders (university staff, local and national government policy makers, businesses and third sector organisations) in Sweden and England		Around 85 interviews with academics, university leadership and non-university regional partners (from the public, private and third sectors) in England, Ireland and Germany

Case studies	Eight case studies of university-region collaboration in contributing to the regional innovation systems in UK, Sweden, Italy, Spain, Poland and Portugal	Eight case studies of universities in UK, Ireland, The Netherlands, Finland described against the civic university development framework developed as an output from the literature review	Fifteen case studies of university-place collaboration in England, Ireland and Germany

3.2   Methods

This body of research has used four main methods across the three thematic areas; reviews of existing literature (both academic and policy), online surveys, semi-structured face-to-face interviews and development of in-depth case studies. This is therefore a mixed methods approach to investigating the key research themes and questions. Mixed methods is an effective tactic for merging and connecting data from various sources (Johnson et al., 2007; Mertens, 2009; Morgan, 2007), for example, by using findings from surveys to inform the design of interview questions and deepen understanding of a particular topic. Each of these methods along with their benefits and drawbacks is discussed later in this section along with a description of how the latter were addressed in the design and execution of the research. Table 1 provides an overview of the empirical evidence generated against each of the three main research themes. These are discussed in more detail in the next three sections.

3.2.1   Literature review

There is general agreement that a literature review provides a good starting point and contextualisation for the research that is to be undertaken (Greenfield, 2002). It can show where it sits within an existing body of knowledge on a topic and how it will add to previous studies. It may also show gaps or even flaws in the current knowledge base, or at least demonstrate how it will add value to previous research.

On many topics there will be an abundance of literature available. Many experts in the field of research methodology highlight the difficulty in knowing what to include. Tranfield et al. (2003) talk about the challenge in making sense of what is available and also highlight the need to remain impartial. The subject matter of most research projects will often be chosen because it is an area of specific interest and therefore there may be a temptation of (either consciously or unconsciously) selecting evidence that merely backs up one's own hypothesis.

The research underpinning the findings presented in this document involved extensive reviews of the literature on each of the research themes, including the policy as well as the academic literature. The supporting portfolio of publications includes a number of peer reviewed journal articles against each of the main themes, which has helped to ensure the literature reviewed has not been partial or biased.

3.2.2 Online Surveys

There is broad agreement that using online surveys to conduct research has many advantages (e.g. Walonick, 2004). In the case of this research electronic survey tools were selected as the most efficient way of reaching the widest number of respondents. There have been many studies (Frankfort-Nachmias and Nachmias, 1996; Coomber, 1997) which have demonstrated the improved response rate when using web-based and email surveys as opposed to more traditional formats. It is an extremely time effective way of gathering evidence – a large number of people can be targeted relative to the time and effort taken to compile and send the questionnaire. For the purposes of this research it also meant that respondents located nationally and internationally could be targeted, which ensured a wider and more diverse set of viewpoints could be captured compared to relying on interviews alone. A second advantage with this method is consistency – every respondent is asked the same questions, so there is no opportunity for interviewer bias or for the respondent to take the interview off track. It also ensures that advanced analysis (for example cross tabulating responses) can be utilised. Boynton and Greenhalgh (2004) look at how questionnaires can be helpful when exploring sensitive information respondents may be reluctant to discuss in face to face interviews. For the purposes of this research this included probing personal and institutional practices that individuals might have felt uncomfortable discussing face to face. Each of the three online surveys used in this work provided the option of anonymity and assurances that responses were non-attributable.

There are several limitations with using a questionnaire-based tool to conduct research and these have been highlighted by a range of commentators (Kirakowski, 1997; Moser and Kalton, 1979; Oppenheim, 1992). Firstly, the format of questionnaire design makes it difficult to effectively gather information needed to explore complex issues. Unlike with an interview, where the researcher has the flexibility to probe further where interesting insights are emerging, a questionnaire will always be limited by its structure. In the case of this research, the addition of some open-ended questions helped to overcome this problem.

At a more fundamental level, there is always a concern with questionnaires that the respondent may not have understood the questions, but unlike in an interview cannot ask for clarification from the researcher. Indeed, we cannot even be sure that the right person even filled in the questionnaire. In the case of this research a number of qualifying questions were used in each survey to filter out ineligible candidates. There is also the potential issue of self-selection with online survey tools (Wright, 2005). By their nature they are only accessible to those with access to a computer and the internet. However, because of the nature of the people targeted in these studies – academics, policy makers and senior public sector staff - this was not felt to be a limitation in this case.

This body of research included the analysis of more than 2,000 responses to online surveys of academics, university managers and policy makers in the UK and internationally. The empirical findings from this analysis were used to inform the design of follow up qualitative research by establishing a number of propositions that could be explored and challenged and in doing so, build a deeper understanding of the issues.

3.2.3   Semi Structured Interviews

Crang (2003) discusses how qualitative approaches have traditionally been seen as taking a 'softer' or even more 'feminine' approach to research, as opposed to a more 'scientific' approach based

on analysis of quantitative data. However, he goes on to show how qualitative techniques have gained increased currency in recent years, and the value of semi-structured interviews, for example in providing a richness and depth to (and even challenging) the quantitative evidence, is increasingly acknowledged. Interviews can be extremely useful in gathering data or evidence on complex themes that don't easily emerge in analysis of quantitative data sets. Selecting interviewees carefully on the basis of their expertise or experience can contribute greatly to the validity of the research by providing a depth of understanding on the topic. Interviews might also allow perspectives or issues to emerge that had not previously been considered by the researcher and thereby offer new and additional insights to the evidence already gathered in the literature and data.

A common concern is interviewer bias (e.g. Bynner and Stribley, 1979). Construction of the questions may unconsciously lead to the interviewer guiding responses, or the respondent telling the researcher what they think they want to hear. Analysis of findings can be difficult, especially when interviewing a range of people from different backgrounds who may look to highlight different areas in the interview. It might be difficult to draw generalisations without compromising the purpose of the exercise and therefore all that is gained is a random set of differing opinions without any conclusive new evidence emerging. There is also a risk that respondents will have imperfect recall when asked to comment on specific issues or occurrences. They may even subconsciously reconfigure the facts in their own mind into a more ideal scenario that paints a picture of what was a preferred rather than an actual situation.

This research involved almost 150 interviews with university staff (academic, management and professional) and stakeholders (local and national government policy makers, businesses and third sector organisations) in England, Sweden, Germany and Ireland. Interview questions were developed following a literature review and analysis of online survey results to highlight potential areas of exploration. Questions were tested with a small sample group before being finalised to

ensure clarity and minimise the potential for misinterpretation. In order to reduce subjective or partial responses, where interviews were used these were conducted with multiple people from the same institution to build a rounded picture of what had taken place and in some cases, interviews were conducted in small groups, which enabled interviewees to remind and correct each other where facts were forgotten or misconstrued. Interview findings were evaluated using narrative analysis to compare and contrast different accounts, develop insights and meanings and look for interpretations.

3.2.4   *Case study development*

Case study development can be a useful and powerful methodological tool for research, especially where the subject matter is complex and specific to a particular set of circumstances and contexts (Bennett and Elman, 2007). Flyvberg (2006) argues that (properly used) case studies are more useful than other methods for this purpose as they generally involve studying more actors and mechanisms. Therefore, in the case of universities which are highly complex, 'loosely coupled' (Clark, 1999) institutions with multifarious external relationships and internal mechanisms by which they are supported, development of case studies is an appropriate approach.

The major critiques of case studies as a research method relates to a perceived lack of a consistently understood approach (Maoz, 2002) or guidelines (Yin, 2009) resulting in a 'free for all', researcher subjectivity (Vershuren, 2003) and the lack of potential for drawing general conclusions (King et al., 1994). However it is contested that quantitative methods and data can also be unreliable and subjective (Berg and Lune, 2010), that case studies are less likely to include bias, and indeed, it is their very specificity that makes them valuable for theory building (Flyberg 2006, ibid).

This research included the development of more than thirty case studies of university interactions and engagement with business, government and society in the UK and nine other European

countries (Ireland, Sweden, Spain, Portugal, Poland, Italy, Finland, The Netherlands and Germany). It did not rely on case studies alone but used them along with other methods to illustrate more general findings and as a 'story telling' mechanism to corroborate or challenge existing perceived wisdoms. An important factor in developing case studies was to situate them in their broader external contexts (e.g. governance, policy, economic), thus challenging approaches that present individual case studies as replicable and transferrable and instead using them to highlight the heterogeneity and diversity of universities' engagement with the outside world.

3.3   Conclusion

This research was primarily concerned with exploring (or even establishing and then exploring) a number of ideas or concepts concerning the role of universities as civic anchors for local innovation and development. Thus, the fundamental approach was to test concepts against a range of empirical data to better understand the mechanisms and processes of universities' engagement in their innovation systems, as place-based actors, the nature of the civic university and the impact of their context on each of these roles. Bearing these objectives in mind, Edwards et al. (2014, ibid.) supports the decision that CR was the methodology best suited to this programme of work.

The varied methods employed to achieve the objectives of the range of projects whose findings have informed this research were purposely selected to act as counterbalances to each other as it is recognised that each of the techniques, whilst individually having a clear and valid role to play in researching the topic, also come with limitations. The literature review and analysis provided guidance for the online surveys. Semi structured interviews were conducted to validate, bolster and even challenge the findings from the responses to the surveys and to provide an opportunity for deeper probing of some of the key issues emerging. Case studies were used to probe more deeply again and test emerging theories and propositions in practice. The intention in employing each of these methods was to ensure the possibility of researcher and interviewee bias is diminished as much as possible while still allowing for the rich and unanticipated insights that a

qualitative approach can deliver. As May (2011) notes, any method will require trade-offs, but adopting a mixed approach can help minimise the intrinsic weaknesses of any single technique.

4.0   UNIVERSITIES AS INSTITUTIONAL ACTORS IN LOCAL DEVELOPMENT AND INNOVATION

4.1   Introduction

National and regional policy makers' expectations of universities playing a pivotal role in the social and economic development of their regions have grown substantially over the past decade (e.g. EU Smart Specialisation, UK Industrial Strategy, Science and Innovation Audits etc.) They are viewed as a critical asset of the place; even more so in less favoured regions where the private sector may be weak, fragmented or relatively small, often typified by relatively low levels of investment in research and development. It has become the convention that universities are central actors in regional innovation, driving local economic growth by supplying human capital and new knowledge through the delivery of their core missions of teaching and research. This is evidenced by policies that explicitly seek to incentivise and encourage universities to contribute to local innovation and development. High profile examples of (seeming) university-led economic success such as Silicon Valley and the MIT Corridor in the United States, and the Cambridge-Oxford-London 'Golden Triangle' in the UK have further fuelled this trend towards ascribing universities an increasingly prominent role in regional innovation strategies.

However this perspective assumes three things; firstly that universities have an undisputed positive and central role in regional innovation; secondly that they are both willing and able to realise this role; and thirdly, that where impediments to their role and contribution exist, these can be overcome if the right policy and funding instruments are deployed.

4.2   Theoretical underpinnings

As shown in section 2, a central role in supporting the local economy by providing knowledge and skills (Coenen, 2007) was in many cases the raison d'etre of the foundation of higher education institutions in the 19th and 20th centuries. And while there have been periodic swings towards and away from a focus on the needs of their local economies driven by iterative trends in national

policies, the role of universities in territorial innovation systems has emerged as a topic of increasing discussion and debate over the past 25-30 years (Uyarra, 2010; Trippl et al., 2015). The role of universities as key sources of knowledge and the emergence of models such as the Triple Helix (Etzkowitz and Leydesdorff, 1997), which is grounded in the belief of a causal link between university research and an uplift in economic performance, has led to them being seen as central actors in the design of regional innovation strategies (Cooke et al., 1997). This is reinforced by a literature that strongly suggests the importance of physical proximity for early stage innovation (Audretsch, 1998) and thus the significance of the location (Aghion et al., 2009) and presence (Tornatzky et al., 2002) of universities as actors in the local innovation eco-system.

This literature has led to a broadly uniform acceptance of the belief by policy makers locally, nationally and internationally that universities are drivers of innovation-led regional policies (Chatterton and Goddard, 2000). Indeed, successive waves of regional innovation policies have ascribed increasingly prominent roles to universities in the innovation system (Kempton et al. 2014). One current example of this is the emphasis placed on the contribution of universities in the European Commission's guidance for developing regional smart specialisation strategies (Foray et al., 2012).

However, Benneworth and Nieth (2018) caution that the capability of universities to meet the demands of these new policies should not be assumed, nor should the strength of the alignment between the supply of knowledge from universities and demand from local firms, especially in peripheral places (Bonaccorsi, 2017). Boucher et al. (2003) highlight how the local economic context can be a key factor in the relative prominence of the role universities might play in the regional innovation system, suggesting that universities in peripheral, institutionally thin places tend to be more central actors in local development strategies. Describing the UK context specifically, Huggins and Johnston (2009) describe how less competitive places are more dependent on their universities as agents of innovation, but that these universities perform less well in terms of knowledge commercialisation than their counterparts in better performing places

which they attribute to more favourable demand-side conditions and capacity. Kempton (2019), in a comprehensive review of the literature on universities and regional innovation, argues that the importance of universities for regional innovation is probably overstated, that their internal structures, policies and processes typically impede their involvement in practice, and that external barriers to university engagement in regional innovation are significant, deeply rooted and difficult to overcome.

4.3   Methodology, **methods and empirical evidence**

This area of work applied a Critical Realist (CR) methodology that was broadly inductive in its approach. Observations from primary and secondary evidence sources across seven projects were drawn on to inform the development of a range of new concepts and frameworks to understand the internal and external factors that impact upon universities' role in regional innovation systems. The 'critical' in CR is key here, suggesting that research grounded in a CR approach takes nothing for granted. The starting point for this research was to question normative positions of the role of universities in regional innovation systems and in particular, conceptual models (e.g. the triple helix) which neglect the influence and impact of underlying mechanisms and structures such as the policy environment and the variegated roles institutions play in different economic and geographic contexts (Brenner et al., 2010).

Adopting a CR approach requires not just asking *if* something works, but why it works and in what circumstances, allowing for the identification of causal mechanisms and structural issues that can promote or mitigate the involvement of universities in regional innovation. While this led to deep insights to challenge and refine existing narratives and concepts, this depth inevitably came at the cost of breath and scope. The cases that were researched in this area of work were all publicly funded universities in European regions. To further test the findings from this research future work could include private institutions and regions in other parts of the world.

This research was conducted between 2011 and 2019 and included ongoing and extensive reviews of both the academic and policy literature relating to universities' role in innovation systems in the UK and Europe. An overview of this work is synthesised in Kempton (2019). It also involved reviews of policies for regional innovation strategies at the European Union level and national and regional level in six European countries (UK, Spain, Sweden, Portugal, Poland and Italy). During the course of this work almost 50 semi-structured interviews were carried out with stakeholders (university staff, local and national government policy makers, businesses and third sector organisations) in Sweden and England. Interview questions were developed in part using the analysis of responses to an online survey of 165 universities, local enterprise partnerships and local authorities in England on the perceived and preferred roles of universities in local innovation systems which helped to identify potentially underexplored issues, particularly relating to the role of universities in helping to build demand side capacity in peripheral places. Material gathered in the literature review and interviews let to the development of eight in-depth case studies of university-region collaboration in contributing to the regional innovation systems in 6 European countries (described in Kempton, 2015; Vallance and Kempton, 2017a; Vallance and Kempton, 2017b and Edwards et al. 2017.

4.4 Findings - gaps and questions for research and policy

In most of the literature which has driven policy on regional innovation at least up to the early 2000s, the primary focus on the contribution of universities has been on their role as supply side actors, generating graduates and knowledge from their research to stimulate and enhance the regional economy. This literature has neglected or given insufficient attention to the role of universities in building capacity on the demand side of the regional economy to absorb intellectual and human capital, nor does it reflect the potential role universities can play in regional leadership and collaboration. This is particularly pertinent in the case of peripheral regions where institutional thinness (Tödtling and Trippl, 2005) may be a factor. This raises the following research

question - ***What are the potential roles and contributions of universities beyond supply of knowledge (research) and human capital (teaching)?***

A further gap in the literature lies in the introduction of models and frameworks for university involvement in regional innovation (e.g. the Triple Helix) that ignore or underplay the limitations/barriers to their contribution. These imply that the mere process of bringing regional actors together is sufficient to stimulate collaborative innovation, that the process itself is unproblematic and does not differentiate between place contexts. This raises a second question - ***What are the factors that limit universities' contribution to the local innovation system, particularly in peripheral places?***

A third and related gap is an overreliance on 'one size fits all' approaches which leads to the importation of non-replicable case studies of success from other places in designing policy. Again, the Triple Helix approach is a prime example of this, asserting that bringing the public, private and academic sectors together will drive innovation and is often applied ex-post to high profile cases (e.g. Silicon Valley) for its validation in underpinning policy. However these models operate in a contextual vacuum and do not allow for variations within and between regional actors, or acknowledge the impact external factors (such as the policy environment, local economic conditions etc.) can have on the ability or willingness of universities to play a role in contributing to regional innovation. The third research question therefore is ***how can policies that seek to promote local development and innovation be designed in a more nuanced way to maximise the contribution of universities?***

4.5 Contribution to addressing research gaps

This work took as its starting position a contention that successful mobilisation of the resources of the university can have a disproportionately positive effect on regional economies and achievement of comprehensive regional strategies, alongside a recognition that there may well be

a series of barriers and challenges to be overcome, both internal to the university and in the wider enabling environment. Therefore, the focus of the earlier research on this theme was on identifying the barriers and challenges and suggesting how they might be overcome.

It then moved to a specific focus on the role of universities in regional innovation in the context of the emergence and implementation of smart specialisation strategies, the latest iteration of Regional Innovation Strategies, whose development became a precondition for accessing European Structural and Investment Funds in the 2014-2020 programme period.

The later part of the work has focused on building a deeper understanding into the real experience of universities' contribution to regional innovation beyond superficial case studies of success, and the extent to which their role in practice delivers on the promise desired by policy makers and (in some cases) promoted by universities themselves.

4.5.1 *What are the potential roles and contributions of universities beyond supply of knowledge (research) and human capital (teaching)?*

In Goddard and Kempton (2011), this research provided a comprehensive overview of the different ways universities engage in regional development in terms of entrepreneurship, innovation, human capital and social and cultural development (see figure 1), elaborating a potential contribution that went beyond the conventional focus on supply of knowledge (research) and human capital (teaching). It also offered an analysis of these interventions in terms of their potential for transformation which contended that those with the most prospects to create enduring change are also faced with considerable barriers, challenges and complexities in their design and implementation.
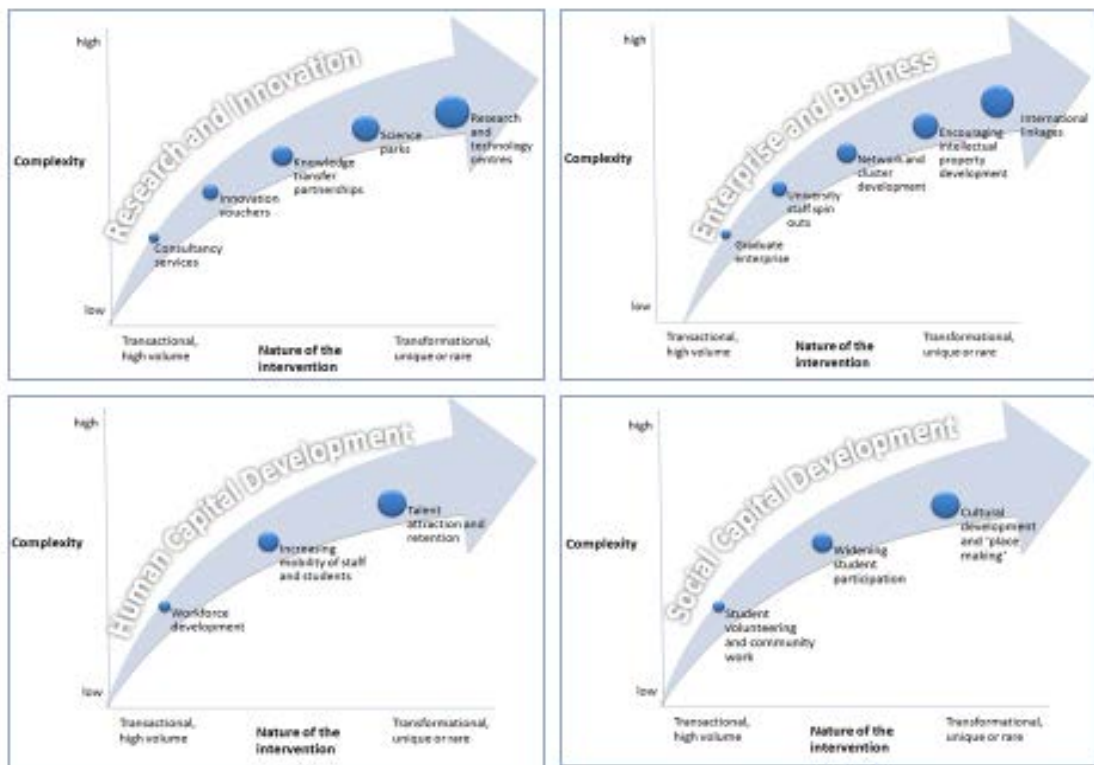
Figure 1 Potential Contributions of Universities to Regional Development

In Healy et al. (2013) the research focused on university-business collaboration in the field of education, something that is often neglected by policy makers and researchers alike who tend to focus on links centred on research, technology transfer and entrepreneurship. This research described different forms of collaboration, potential impacts, drivers of and challenges in promoting deeper collaborations between universities and business in the field of teaching and learning. This led to a more in-depth understanding of the varied roles universities can potentially play in human capital development beyond their 'core' mission of under- and post-graduate teaching. It also deepened the understanding of the range of barriers and challenges (internal and external) that inhibit universities from playing a more significant local and regional role, in particular the drive to build the national and international reputation of the institution through achievement in rankings and other metrics in an effort to widen student recruitment.

In Goddard et al. (2013) this research provided a description of the development process of smart specialisation as a concept and its implications for universities and policy makers wishing to create a more enhanced role for higher education compared to previous approaches to regional innovation strategies. This paper, if not <u>the</u> first, was certainly one of the first contributions to the literature on universities and their role in regional smart specialisation strategies, which at the time was an evolving policy concept that went on to underpin European Structural Investment Funds (ESIF) for the 2014-2020 programme. It was the first time that the potential challenges and tensions for universities' involvement in smart specialisation strategies were described. Whilst maintaining the generally normative position that universities were a 'good thing' for regional innovation, it described a number of challenges in mobilising them, specifically in the context of the emerging smart specialisation concept.

4.5.2 *What are the factors that limit universities' contribution to the local innovation system, particularly in peripheral places?*

This research highlighted the importance of regional context in maximising the potential of universities to contribute to the regional innovation system, something which had been largely ignored by models such as the Triple Helix. It led to the development of two interpretative models - the 'connected' and the 'disconnected' region (see figures 2 and 3) – and highlighted the importance of assessing this context and its implications for guiding policy design. It also suggested that the strength and degree of connectedness within and between the three pillars of higher education, the public and private sectors will vary across the regions of Europe and this will have implications for how regional investment in higher education-led activities are prioritised, challenging the 'one size fits all' approach of models like the Triple Helix.
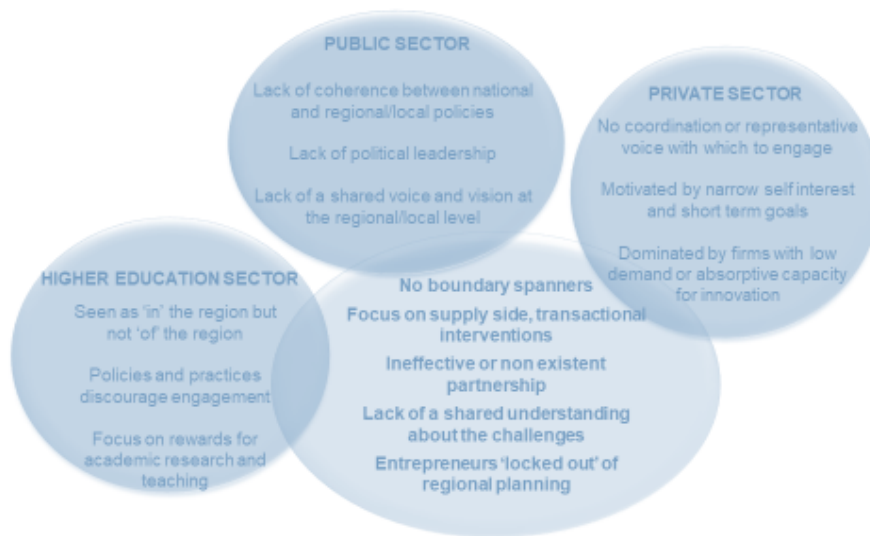
PUBLIC SECTOR

Lack of coherence between national and regional/local policies

Lack of political leadership

Lack of a shared voice and vision at the regional/local level

PRIVATE SECTOR

No coordination or representative voice with which to engage

Motivated by narrow self interest and short term goals

Dominated by firms with low demand or absorptive capacity for innovation

HIGHER EDUCATION SECTOR

Seen as 'in' the region but not 'of' the region

Policies and practices discourage engagement

Focus on rewards for academic research and teaching

No boundary spanners
Focus on supply side, transactional interventions
Ineffective or non existent partnership
Lack of a shared understanding about the challenges
Entrepreneurs 'locked out' of regional planning

Figure 2 The Disconnected Region

PUBLIC SECTOR

Developing coherent policies that link territorial development to innovation and higher education

Analysis of evidence and intelligence for planning

Evidence based policies that support 'smart' innovation and growth

Building the infrastructure for growth

Investing in people and ideas that will create growth

Generating intellectual and human capital assets for the region

Skills development, commercialisation of research

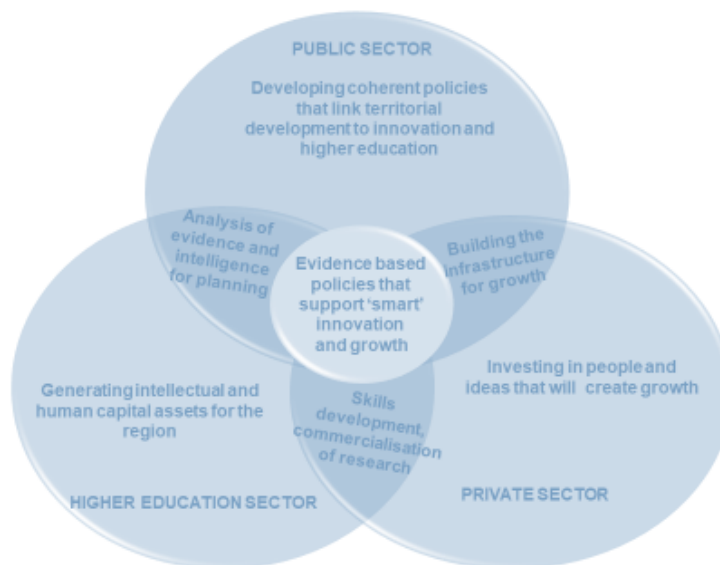HIGHER EDUCATION SECTOR

PRIVATE SECTOR

Figure 3 The Connected Region

Kempton et al. (2014) provided a synthesis of Goddard et al. (2013) aimed at the policy-making community across Europe. It translated academic research into clear and succinct messages by highlighting the barriers and challenges (which are often underplayed) as well as the opportunities

in involving universities in smart specialisation strategies. It described for the first time the 'four capacities' needed for successful smart specialisation – generative, absorptive, collaborative and leadership – and the roles universities might play in contributing to building each of these capacities in their region (see figure 4). It highlighted that up to this point the focus of university involvement in regional innovation strategies had been mostly confined to the generative role, whose primary focus was on the capacity of universities to contribute to the supply of innovation, and ignored their potential role (and the need for) building capacity on the demand side. This went on to be used as a key underpinning concept in a successful application to the Seventh EU Framework Programme (FP7).
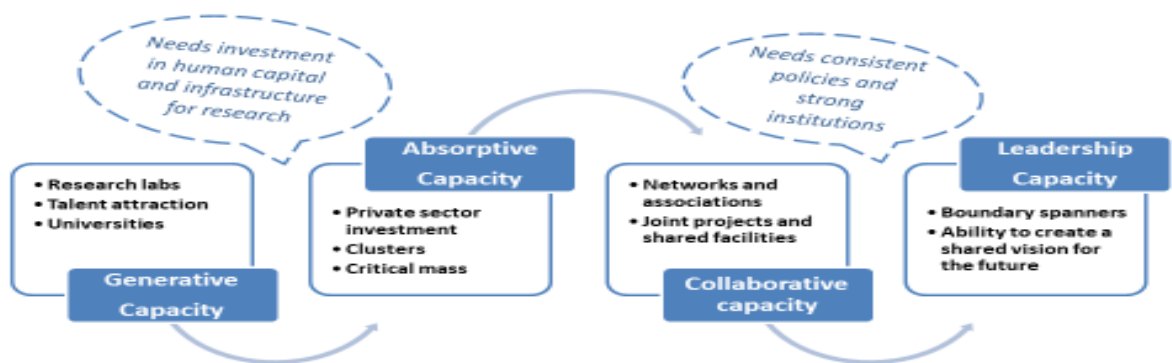

Figure 4 Four Capacities for Smart Specialisation

Edwards et al. (2017) was produced as an output from the Higher Education and Smart Specialisation (HESS) project, based on findings from fieldwork and desk research in two European regions (Navarra in Spain and North East Romania). It builds on previous research described in Goddard et al. (2013), Kempton et al. (2014) and Kempton (2015). This research has contributed to a more nuanced understanding of the role of universities in regional innovation, specifically smart specialisation strategies. In particular it provided a description of how external contextual factors (governance and policy in terms of higher education and

territorial development, the nature and structure of higher education in general and the regional economic context) have a significant impact on what universities can and will contribute.

Kempton (2019) provided a comprehensive review of the literature related to universities' role in regional innovation. It summarised the limitations of the various approaches to university-region partnership for innovation, as well as describing the fundamental, institutional and environmental factors that constrain meaningful engagement of universities in their regional innovation systems (see box 1). It questioned the policy orthodoxy of the university as a necessary and sufficient actor in delivering regional innovation strategies, whether their engagement can ever deliver the promises made by models such as the civic university and highlighted the danger of policies that are designed with a blind belief in the intrinsic value of their contribution, particularly in economically lagging places. It concluded by providing key messages for policy makers to help them better engage universities in regional innovation, but also to recognise the limitations of their contribution and role.

Limiting factors	Challenges
Fundamental	University research and teaching specialisms do not reflect the regional economy
	Lack of links between university research and the regional innovation system
	Lack of empirical evidence of 'real world' success, or models of engagement based on few, non-replicable case studies
	Tension for universities between achieving global excellence and engaging locally
	Genuine engagement requires a long term (decades) process of development
Internal (institutional)	Engagement is often driven by short term funding opportunities
	Spatially blind reward system for research excellence
	Engagement is often dependent on individual motivations rather than managed as an institution wide endeavour
	Institutional history and characteristics may mitigate meaningful regional engagement
	Internal recognition and reward systems are not designed to incentivise regional working
External (environmental)	Regional industrial make-up
	Weak demand for and capacity to absorb knowledge
	Institutional thinness
	Higher education policy often nationally focussed, spatially blind
	Poor understanding of the diversity and heterogeneity of universities by policy makers

Box 1 Constraining Factors for University Contribution to Regional Innovation

4.5.3 *How can policies that seek to promote local development and innovation be designed in a more nuanced way to maximise the contribution of universities?*

Kempton (2015) used the findings from empirical research of a university- region collaboration in Sweden conducted in 2013 to highlight the importance for policy makers of taking a nuanced, context-based approach to policy design, particularly in peripheral places. It emphasised the importance of history and geography, showing that successful collaborations can't just be 'switched on', and that how universities and regions define their spatial area of operation are rarely the same. It also demonstrated that genuine and mutually beneficial university-regional collaborations are the exception rather than the rule and depend on much more intangible factors (e.g. trust, longevity of relationships) which cannot be addressed by policy design alone.

Vallance and Kempton (2017a and 2017b) analysed the evidence from a two-year study programme investigating the role of universities in smart specialisation strategies in five European regions. It suggested that if regions and universities want to cooperate as learning partners in order to respond to the changes in their strategic environment smart specialisation creates they need to be much more explicit in their mutual efforts to understand and overcome the barriers and challenges caused by their internal operating contexts as well as the external policy environment. Furthermore it evidenced the need for policy makers to understand the heterogeneity of both the region and the institutional actors within it and design more nuanced, bespoke strategies to reflect these, rather than taking the generic approach that some policies might seem to suggest.

This research has challenged the normative position presented by models such as the Triple Helix, entrepreneurial university and the engaged or civic university by demonstrating the failure of these models to fully reflect the internal and external challenges in successful mobilisation of universities to contribute to regional innovation. At a more fundamental level it has questioned whether universities are even equipped to deliver on the expectations of policy makers and the

limitations (or even danger) of policies that are designed with a blind belief in the intrinsic value of their contribution, particularly in economically lagging places.

4.6   Research impacts

4.6.1   *Academic impacts*

Goddard and Kempton (2011), despite being a policy and practitioner focused guidebook, has been cited in the academic literature more than 70 times by leading researchers in the field of regional development, innovation and the role of universities (e.g. Paul Benneworth, Romolo Pinheiro, Philip McCann).

Goddard et al. (2013) has been cited almost 70 times including by the 'architect' of smart specialisation Dominque Foray in a book that itself has been cited more than 500 times. Its importance as an early discussion of universities in the context of smart specialisation is evidenced by its citations by other prominent academics in the field such as Andrea Bonaccorsi, Jiří Blažek and Bjorn Ashiem.

Healy et al. (2013) has also been well cited (almost 70 times) in the literature focusing on the links between teaching and industry by key authors such as Carolin Plewa and Todd Davey.

Kempton et al. (2014) is a, short policy focused brief. Despite this, its synthesis of the emerging literature on the topic of universities and smart specialisation as well as presentation of new schematics for understanding and analysis of the issues have led to it having significant influence in the literature. It has been citied more than 50 times in publications by leading academics in the field such as Michaela Trippl, Helen Lawton Smith, Robert Hassink, David Charles, Philip McCann, Raquel Ortega-Argiles and Elias Carayannis.

Although only a short (3,000 word) article, Kempton (2015) has been cited nearly 40 times by authors such as Benneworth and Carayannis.

4.6.2   Policy and Practice impacts

The guide Connecting Universities to Regional Growth (Goddard and Kempton, 2011) has been endorsed by the European Commissioners for Education and Regional Policy and has influenced the European Commission to the extent that the revised guidelines for regional policy are now more sensitive to the contribution that universities can make to the Europe 2020 agenda of 'smart, sustainable and inclusive growth'. The findings of this research were used by the European Commission's Directorate for Education and Culture as part of its policy on 'Modernising European Universities'. The background policy paper draws directly on the language of the 2011 Guide to note

> *"In assessing the role of HEIs in the region it is useful to identify the steps needed to create a 'connected region' in which the institutions are key players. [HEI's] can contribute to a region's assessment of its knowledge assets, capabilities and competencies…"*

This work has also been used by national and regional governments in developing their approaches to the mobilisation of universities for regional development, for example in Saudi Arabia where the Ministry for Education translated it into Arabic to help inform their strategy for regional higher education expansion. It has also been translated into Icelandic. A submission on the revision of structural funds to the Welsh Assembly Enterprise and Business Committee by Higher Education Wales notes:

> *"This shift [to a focus on interventions which will have long term and beneficial outcomes for the Welsh economy] is explicitly recommended by the European Commission itself in its landmark report 'Connecting Universities to Regional Growth".*

The European Universities Association is also using this analysis to help position itself to policy makers in advance of the negotiations for the next round of European Funding

https://eua.eu/downloads/publications/coherent%20policies%20for%20europe%20beyond%202
020%20maximising%20the%20effectiveness%20of%20smart%20specialisation%20strategies.pdf

Healy et al. (2013) helped to develop a deeper understanding among policy makers and universities of the potential forms and impacts of university-business collaborations in human capital development beyond a focus on 'just' the traditional teaching mission or research and technology-led activities of universities which has led to a wider understanding of the ways in which universities and businesses can work together.

This research was central to the UK Government's thinking on how to meet the smart specialisation ex-ante conditionality for European Structural and Investment Funds in England, and went on to inform the shape and structure of a support platform in England (which became the Smart Specialisation Hub).

The outcome of the project evaluating the University-Region collaboration in Värmland in North-Mid Sweden led to the establishment of the Academy for Smart Specialisation in Karlstad University, around which the regional smart specialisation strategy is centred.

The elaboration of the 'four capacities' for Smart Specialisation has been used to inform the development of an FP7 programme, SmartSpec. This framework is now a standard model used by the European Commission's Smart Specialisation Platform to articulate and assess the role of universities in smart specialisation strategies across the EU.

Material drawn on in this section

Projects

Connecting Universities to Regional Growth

University-Business Cooperation (education and life-long learning)

Smart Specialisation: A Possible Platform for Support in England

Evaluation of the University-Region Collaboration in Värmland

Universities and Smart Specialisation

Higher Education and Smart Specialisation

Thinking Smart

Peer reviewed academic publications and book chapters

Goddard, J., Kempton, L. and Vallance, P. (2013). Universities and Smart Specialisation: challenges, tensions and opportunities for the innovation strategies of European regions. Ekonomiaz: revista vasca de economia. (83). 83-102.

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Research reports and other publications

Goddard, J. and Kempton, L. (2011). Connecting Universities to Regional Growth: A Practical Guide. Brussels: European Commission.

Healy, A., Perkman, M., Goddard, J. and Kempton, L. (2013). Measuring the Impact of University-

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Vallance, P. and Kempton, L. (2017a). The Entrepreneurial Discovery Process in European HEIs – The Case of Newcastle University

Vallance, P. and Kempton, L. (2017b). The Entrepreneurial Discovery Process in European HEIs – A Comparative Analysis

5.0   THE NATURE OF THE GLOBAL CIVIC UNIVERSITY

5.1   Context

The civic university concept has had a resurgence over the past decade, partly in response to austerity, the escalation in student fees (in the UK) and the need to tackle society's 'grand challenges' (e.g. ageing, climate change, social upheaval) which can be both local and global in their scale and impact and require complex, multi-disciplinary and multi-sectoral responses. Governments and communities grappling to understand and address these challenges want universities to articulate their role as local and global actors and explain how their activities can help to solve (or resolve) these 'wicked' problems.

The Civic University has been proposed as one conceptual approach to respond to these pressures and demonstrate how universities might make a meaningful contribution over and above the effect of contributing to human capital and research-led innovation through their core missions of teaching and research.   An underlying assumption is that civic universities are valued as an asset by their local communities and will therefore be supported by them should the university be seen to be under threat or attack. In the UK the 2019 Civic University Commission led by the former head of the home civil service, Sir Bob Kerslake and globally initiatives such as the Global University Network for Innovation (GUNi) demonstrates the ongoing and pervasive interest of the idea of the civic university.

5.2   Theoretical underpinnings

The historical context of England's civic universities is described in Section 2, as are the contemporary forces and trends that place increasing expectations on universities to demonstrate their value beyond delivery of their teaching and research roles to society at large. One response to these pressures has been a revival in interest of the concept of the civic university (Goddard et al., 2016), which Goddard (2009, p. 5) described as

"…one which provides opportunities for the society of which it forms part. It engages as a whole with its surroundings, not piecemeal; it partners with other universities and colleges; and is managed in a way that ensures it participates fully in the region of which it forms part. While it operates on a global scale, it realises that its location helps to form its identity and provides opportunities for it to grow and help others, including individual learners, business and public institutions, to do so too."

These concerns with society more broadly, the importance placed on a connection with place and the need for institutional (and institution wide) approaches to engagement provided a new perspective that built on the more general concept of the 'engaged' university (Watson et al., 2011). It also offered a counterpoint to the entrepreneurial university model (Clark, 1999) which became a prevailing model for higher education management policy during the early 2000s, focussing on the university's links with industry through technology transfer and commercialisation of intellectual property.

The civic university perspective argues for engagement with a much wider range of organisations and sectors using mechanisms that mobilise people and units across the institution for reciprocal, mutual benefit. The vision set out by Goddard (2009, p. 4, ibid) calls for

"an institution-wide commitment … [that] has to embrace teaching as well as research, students as well as academics, and the full range of support services."

This can be seen as a challenge to the discourse on 'third mission' (Gunasekara, 2006) where activities involving links with external, non-academic partners are seen as separate and distinct (and by definition less valued) to the core missions of teaching and research, to be delivered by specialist (usually non-academic) staff or units rather than embedded across all areas of institutional operations (Goddard and Vallance, 2013).

5.3   Methodology, **methods and empirical evidence**

The Critical Realism (CR) methodology is well suited to action research and a mixed methods approach. The primary source of evidence for this theme was a five-year learning-by-doing project involving eight universities in four Northern and North Western European countries. The approach was broadly deductive, starting with the development of a novel conceptual framework that was then applied in practice and the results observed and analysed.   In this case the CR methodology allowed the research to move from broad concepts to real life practicalities.

One challenge with this approach was its reliance on individual institutions providing their own account of the process as accounts can be fallible. In an attempt to overcome this limitation in the methodology detailed guidance was provided to each institution on how to conduct the action research and also how to report back their findings in a standardised way. The ideal approach in taking this agenda forwards (though obviously resource and labour intensive) would be to deploy an independent observer to oversee and record the results of the action research process.

This programme of work was carried out between 2011 and 2016 and involved an extensive review of the extant literature on the history, nature and contemporary applications of university engagement and the concept of the civic university. From this a series of models and frameworks were developed to define what a civic university is, assess the 'civicness' of individual institutions, and guide them in how to embed their civic mission at an institutional level. These models and frameworks were tested through a range of qualitative and quantitative methods of analysis including an online survey of almost 2,000 academics with the final output being a set of detailed case studies of each institution as well as an overarching analysis and review of the initial conceptual frameworks. A full description of the process and findings of this work can be found in Goddard et al. (2016a).

5.4   Findings - gaps and questions for research and policy

While the civic university seems to offer a broader conceptual framework to describe a wider engagement with and impact on society (Ward and Hazelkorn, 2012) beyond the narrow business-orientation of the entrepreneurial university, neither the academic nor the policy literature up to this point had provided a comprehensive definition of what constitutes a civic university. A further issue raised in the literature is that because there is no consistent definition of a civic university there is no systematic way to assess and rank universities on the basis of their 'civicness' and therefore it is difficult for funding agencies to reward universities for civic actions through the distribution of performance-based funds in the same way they do for other core activities such as research and teaching. This raised the fundamental question – ***What is the definition a civic university?***

A second gap has been that much of the literature relating to universities and their engagement with the outside world has taken an 'inside out' perspective (Goddard and Vallance, 2013), with a focus on the effectiveness of mechanisms for universities to reach out to engage with external partners which ignores or neglects the impact of internal leadership and management on the execution of a civic mission. A further question explored through this research therefore was - ***How do internal leadership and management factors impact on the realisation of a civic university ambition?***

5.5   Contribution to addressing research gaps

5.5.1   *What is the definition of a civic university?*

Goddard et. al. (2012) provided a synthesis of the literature on the nature of the civic university. It critiqued the tendency for normative, overly optimistic depictions of (mainly research intensive) universities as core actors in their local economies. It particularly focused on the tension between the global and local role of universities and argued that it is not a binary choice of focusing on one or the other. It described how universities can benefit their local area by harnessing their global

links and connections and grow their international reputation by building deep local connections to create 'living laboratories' in their cities. This publication suggested that universities can act as social innovators, particularly in terms of tackling societal grand challenges which have local as well as global implications. This was an early contribution to the emerging literature on social innovation, grand challenges and the potential contribution of universities in addressing them. This analysis led to the development by the author of two frameworks that attempted to articulate the 'civic' or engaged (as opposed to the 'uncivic' or traditional) university (see figures 5 and 6).
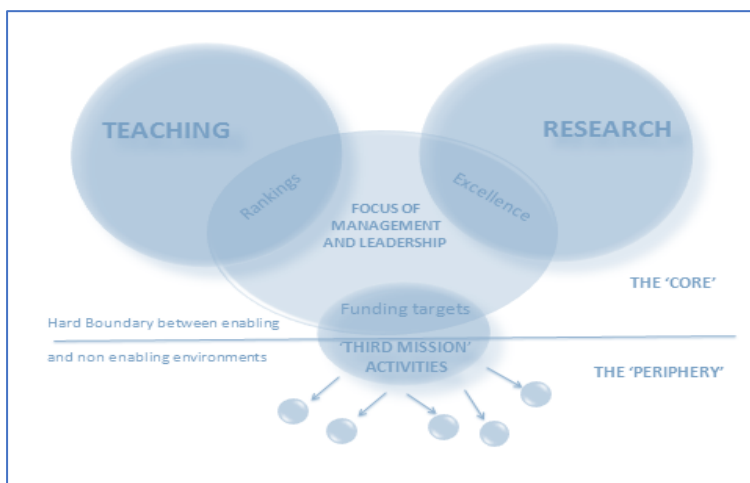

Figure 5 The Uncivic University

In the 'un-civic' university management and leadership view the three main areas of activity as separate and distinct. The central core is concerned primarily with maximising success in rankings (teaching), excellence (research) and achieving funding targets for non-teaching and research ('third mission') activities. As such support and incentives for staff are driven by these priorities. Non research or teaching activities are side-lined as third mission and pushed to the periphery unless there are specific targets associated with them. There is therefore a hard boundary created between the core, where activities are supported and enabled and the periphery, where activities happen in spite of and not because of central support. Achievements that take place within this periphery tend to drift away as there are no mechanisms in place to embed learning or good practice back into the core.

In the 'civic' university there is no perception of a core or periphery as engagement is seen as embedded and relevant to other areas of activity leading to strong overlaps between the three domains of teaching, research and engagement.
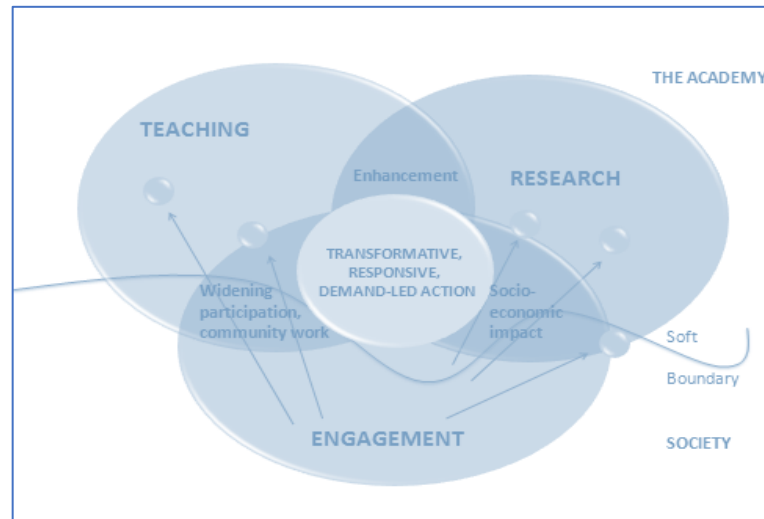

Figure 6 The Civic University

Where teaching and engagement overlap there will be effective outreach activities linked to student recruitment (e.g. widening participation) and augmenting the student experience (e.g. community work, volunteering).   Where teaching and research overlap there will be enhancements to both, with teaching becoming more meaningful and linked to the real world, while research benefits from the results of applied and relevant coursework. The overlap between research and engagement will result in non-academic impacts, as researchers work collaboratively with non-academic partners to find solutions to specific needs and challenges in the wider world. This in turn helps inform further research by raising new questions and providing insights that would not be revealed from academic research alone. When all three areas overlap the university will be engaged in transformative, demand led actions, and in this space its impact will be greater than the sum of each activity alone. There is a 'soft' boundary between the academy and society at large, which will shift constantly as the university responds to new demands and existing collaborations reach their natural conclusion. In the civic university institutional management and leadership are focused on creating an enabling environment for success at all levels. Staff are motivated and incentivised to engage with society as these activities are well resourced and supported, and there are clear rewards for success. This ensures that lessons and insights from societal interactions will be brought back across the 'soft' boundary and used to create improvements in teaching and research.

In contributing to Goddard et. al. (2016a) Kempton provided for the first time a definitive description of the civic university. This research reviewed and analysed the academic literature on civic and engaged universities as well as a range of national and international benchmarking and measurement tools for (civic) engagement and synthesised these into seven characteristics or dimensions that attempted to provide a universal definition of a civic university. This suggested that a civic university is not just characterised by what it does but also how it does things. A focus on the 'how' ensures that activities are not just determined by individuals or small groups, but take place within a holistic framework and internal enabling environment that encourages and promotes active institutional citizenship. These are summarised in box 2.

- The primary feature of a civic university is its *sense of purpose* – an understanding of not just what it is good at, but what it is good for. It makes an explicit link to the wider social and economic domain which may be expressed as an aspiration to tackle societal challenges or specific problems be they global or local or a combination of both.

- A civic university is *actively engaged* with the wider world, the nation in which it operates and the local community of the place in which it is located. This engagement is achieved through dialogue and collaborations with individuals, institutions and groups locally, nationally and globally.

- The civic university takes a *holistic approach* to engagement, seeing it as institution wide activity and not confined to specific individuals or teams. Academics see a clear value in the externally focused activities as enhancing the quality of their research and teaching, viewing it as integral rather than additional to their core activities.

- The civic university has a strong *sense of place*. While it may operate on a national and international scale, it recognises the extent to which its location helps to form its unique identity as an institution as well as provide a 'living laboratory' for new ideas and initiatives.

- The civic university is *willing to invest* in its objectives to have an impact beyond the academy. This includes releasing human and financial resources to support certain projects or activities and incentivising staff to get involved.

- The civic university is *transparent and accountable* to its stakeholders and the wider public. It has clear benchmarks and performance indicators which help it to express its civic mission in practical ways, not only to measure itself but also to encourage others to assess the value of its actions.

- The civic university uses *innovative methodologies* in its engagement with the world. It encourages its staff to explore new and emerging approaches to tackling societal challenges, work with non-traditional partners and methodologies and use the findings from engaged research to challenge and shape its own internal policies and practices.

Box 2   The Dimensions of a Civic University

5.5.2 *How do internal leadership and management factors impact on the realisation of a civic university ambition?*

The main purpose of defining the nature of the civic university and its characteristics was to foster an institutional dialogue about what it does and how it does it. This led to the development of a set of tools (Goddard et al., 2016 Annex B) aimed at supporting university management in understanding, evidencing and assessing their 'civicness' and informing future strategic planning. These were tested with eight European universities (in the UK, Netherlands, Finland and Ireland) as part of an action-based, developmental learning process over two years (the Civic University Study Programme), informed by analysis of the findings of an online survey which had almost 2,000 responses from academics in the participating institutions.

Kempton (2016) drew on the findings from the empirical work of the Civic University Study Programme to propose that rather than being a civic (i.e. good) or uncivic (i.e. bad) university, institutional leaders and managers have to deal with a constantly shifting set of tensions, some of which are externally derived and outside their control (e.g. higher education policy, other policy areas such as science and innovation, even issues as seemingly remote as migration policy) and some of which are driven by internal factors (e.g. promotion and incentive schemes, leadership culture). This described a set of 'tensioned issues' as opposed to a linear or normative approach to help university leaders understand the context-specific issues they need to manage in their ambitions to position themselves as civic universities. These are shown in box 3.

We define the problems	---vs---	We let others define the problems
We determine what our contribution should be	---vs---	We ask others what they want our contribution to be
Civic academics (bottom up)	---vs---	Civic university (top down)
Place on the map	---vs---	Place in the mind
Civic university is a way to describe what we already do	---vs---	Civic university drives us to do new and more things
Politically neutral	---vs---	Politically engaged
Highlights our differences	---vs---	Highlights our similarities
Broad challenges	---vs---	Specific problems
Individual initiatives	---vs---	Collective endeavours
Supply led	---vs---	Demand driven
Standalone strategies, staff, units, SPVS for engagement	---vs---	Engagement is embedded across all areas of activity
Chaos/laissez faire	---vs---	Structured, managed
Organic, soft institutions	---vs---	Hard institutions
Continuity, durability	---vs---	Flexibility, change
Local	---vs---	Global
Internal vision	---vs---	External pressures
Risk averse	---vs---	Risk aware

Box 3   Tensioned Issues in Leading and Managing the Civic University

Kempton, in contributing to Goddard and Kempton (2016), provided a synopsis of the learning from these earlier projects and publications and applied it to the specific situation of Warwick University and the English policy environment for higher education and territorial development more broadly. This publication laid out twelve key questions that universities need to consider in their ambitions to develop or enhance their civic mission (see box 4).

1. *Meaningful civic engagement is by its nature a risky endeavour; how can a culture of managed risk taking and innovation be fostered?*

2. *Location is important – but how is the 'place' defined and what are the implications of this definition?*

3. *How can universities, their staff and partners be supported to cope in a rapidly evolving policy context?*

4. *Are dedicated formal institutional structures within the university (e.g. civic partnership hub) and intermediate organisations (e.g. Science and Innovation Park) needed to promote and sustain local collaboration? How do these relate to the academic heartland of the university?*

5. *Is it possible to manage engagement activities and relationships in a joined up way without creating a burdensome bureaucracy and a heavy handed, top-down managerial approach?*

6. *Can partnerships be formed around collaborative projects in which everyone has a vested interest to create 'win-win' situations that can be sustained in the longer term?*

7. *How should the civic function of universities be resourced? Is it better to see it as a separate function or embedded in role of every unit and employee?*

8. *What are the right planning horizons for civic engagement activities and can (or should) these be aligned with planning timeframes of other local and national actor and agencies?*

9. *How can universities create career paths for people whose experience and expertise spans the boundaries between academia and support roles and between the university and the outside world?*

10. *How can universities work with other higher education institutions locally to support the development of the place while at the same time competing with each other for students and funding?*

11. *Universities can't do everything that is expected or asked of them; how should they decide what to prioritise?*

12. *How can the impacts of collaborative activities on the university and on the local society be measured and evaluated?*

Box 4   Questions for Civic Universities

5.6   Research impacts

5.6.1   Academic impacts

In terms of its contribution to the literature, this research introduced a new understanding that being a civic university cannot be defined in a linear, normative way. Rather, university leaders and managers are grappling with a constantly shifting set of tensions, some of which are externally derived and outside their control. It also went on to challenge the rhetoric underpinning the civic university concept that assumes a collective will is sufficient for universities to develop their civic-ness by highlighting the reality of the extent to which the external environment shapes the nature of university engagement and the fundamental weakness in most of the traditional taxonomies in the academic and policy literature which don't pay sufficient attention to this aspect.   The publications on these themes have been cited in the academic literature more than 100 times since 2016 by leading academics such as Markku Sotarauta, Andrew Beer and even the originator of the triple helix himself (Henry Etzkovitz) in theorising the university in a recent publication.

5.6.2   Policy and Practice impacts

By re-framing the concept of the civic university for a 21st Century context and exploring how it interacts with other concepts and theories such as social innovation, living laboratories and the quadruple helix (a more recent iteration of the triple helix concept to include society as the fourth element), this research has helped policy makers and universities themselves to build an understanding of how universities may seek to play a role in their local society beyond being generators of knowledge and graduates. This research led to the development of a think piece (Goddard and Kempton, 2016) that underpinned and informed the Chancellor of Warwick's Civic University Commission which has helped to shape the university's strategy for regional engagement and positioning.

This work has also been influential nationally and internationally in shaping institutional approaches to defining university civic missions and roles. At a policy level a major impact has

been to inform the work of the Civic University Commission, which to date has resulted in the commitment of more than 50 UK universities to sign Civic University Agreements with their local stakeholders. It has also been highly influential in the development of the Welsh Government and higher education funding body's policy on civic engagement.

By providing a synthesis of the literature on the nature of the civic university, defining and describing (for the first time) the characteristics of the civic university and developing a range of self-assessment and analysis tools to help universities understand their civicness this research has helped universities assess and articulate their approach to being civic universities in practice. It is currently being explicitly drawn upon by universities around the UK in the development of their Civic University Agreement and strategies. For example, it is heavily referenced in Glasgow University's emerging engagement strategy (not yet in the public domain).

Material drawn on in this section

Projects

The Civic University Study Programme

Chancellor of Warwick University's Civic University Commission

Peer reviewed academic publications, books and book chapters

Goddard, J., Vallance, P., and Kempton, L. (2012). The Civic University: Connecting the Global and the Local. In: Universities, Cities and Regions Loci for Knowledge and Innovation Creation. (Agnieszka Olechnicka, Roberta Capello, Grzegorz Gorzelak Eds). Routledge:London.

Goddard, J., Hazelkorn, E., Kempton, L. and Vallance, P. eds. (2016a). The Civic University: The Policy and Leadership Challenges. Edward Elgar Publishing.

Goddard, J., Hazelkorn, E., Kempton, L. and Vallance, P. (2016b). Appendix B: Tools for understanding the civic university. In: The Civic University: The Policy and Leadership Challenges. Edward Elgar Publishing Ltd. pp. 312-320.

Kempton, L. (2016). Institutional challenges and tensions. In: The Civic University: The Policy and Leadership Challenges. Edward Elgar Publishing Ltd. pp. 281-297.

Research reports and other publications

Goddard, J. and Kempton, L. (2016). The Civic University: Universities in leadership and management of place. RR2013/03. Newcastle upon Tyne: Newcastle University.

6.0 ENGLISH UNIVERSITIES AS ANCHOR INSTITUTIONS IN THEIR PLACE

6.1 Context

While the civic university concept recognises the role of universities in places, this does not confine them solely to their physical location given their global and national (as well as local) role outlined in the previous section. By contrast the anchor institution approach is to focus explicitly on the role of the university as an actor within its local geography and is particularly relevant in the context of place-based strategies aimed at addressing economic disparities. Notwithstanding possible expansion to other nearby or far away campuses, universities still have considerable sunk investment in buildings and strong identification with their places, often articulated in the name of the institution itself. Experience suggests that universities have generally been immune (or at least, less susceptible) to institutional failure or sudden contractions in size. They can therefore act as a source of stability in local economies, buffering against the worst effects of periodic downturns.

Over the past decade successive national and sub-national policy makers in the UK have, through a range of initiatives, from Government reviews (e.g. Wilson, 2012; Witty, 2013) to independent inquiries (e.g. the Civic University Commission, 2019), contended that places should make better use of the assets and capabilities of their local universities. This trend can be further evidenced through the recent emergence of a range of funding levers (such as the Strength in Places and Shared Prosperity Funds) in which universities are increasingly expected to be at the vanguard of driving inclusive growth and development in the places where they are located. Yet evidence suggests the track record of universities as actors in local development is highly inconsistent, ranging from instrumental engagement (i.e. only willing to get involved to satisfy their own self-interest) to indifferent place-blindness (i.e. working with the best partners to further their agenda, regardless of where they are located). Even where a university does strive to demonstrate a genuine willingness to contribute to the development of its place, in reality this is often confined

to a portfolio of individual interventions rather than a coherent, cohesive place-based agenda co-designed and agreed with other local actors.

A further confounding factor is that the places where universities have 'stepped up to the plate' to provide capacity and resources to support local development (e.g. taking over the running of public assets such as museums and art galleries) tend to be in weaker, institutionally thin economies, where the university may be the sole higher education institution and in some cases in a fragile position itself. By contrast, more prosperous, institutionally thick places (where the 'best' universities tend to be located) appear to make fewer demands on their universities to contribute to activities beyond their core missions, allowing them to focus on strengthening their relative position. Thus the hierarchies of places and universities becomes an increasingly mutually reinforcing phenomenon.

6.2   Theoretical underpinnings

The application of the anchor institution narrative to the English context is a relatively recent phenomenon, having emerged from the literature on US urban policy (Goddard et al., 2014). While it still lacks a precise or consistent definition it is generally accepted as referring to large, locally embedded, non-governmental institutions that can directly and indirectly play a critical role in local economic growth strategies. They are defined by the Work Foundation (2010, p. 3) as follows:

> *"…anchor institutions do not have a democratic mandate and their primary missions do not involve regeneration or local economic development. Nonetheless their scale, local rootedness and community links are such that they are acknowledged to play a key role in local development and economic growth, representing the 'sticky capital' around which economic growth strategies can be built."*

Universities, along with hospitals, are among the most commonly cited examples of anchor institutions (Adams, 2003), being largely fixed in specific places as a consequence of their physical scale and identity. The direct impact of universities as employers and purchasers of goods and services in their local areas is well documented in the literature (for example, Glasson, 2003; Zhang et al., 2015) and by universities themselves through the commissioning of economic impact studies (for example, Oxford Economics, 2017) that generally claim additional and substantial multiplier effects from their activities. Universities also assert further significant indirect impact on their local economies through the spending power (particular in terms of rental income) of their non-local student population who are also a source of casual, flexible labour for local firms (Munro et al., 2008).

The attraction and retention of staff and students from other regions and countries can improve local economies by boosting the supply of skilled workers in the local labour market (Gertler and Vinodrai, 2005). Knowledge spillovers through research collaborations with local firms and academic spin outs can also be seen as a source of additional innovation capacity for the local economy, particularly in high growth sectors (Markusen, 1996). However Boucher et al. (2003) in analysing a series of European case studies argue that older, traditional (i.e. typically research intensive) universities tend to be less involved in supporting the local economy than newer, vocationally oriented (i.e. typically teaching intensive) institutions. Furthermore Drucker and Goldstein (2007) point out that economic impact studies generally focus on single universities in isolation rather than as one of potentially several actors in the local higher education system whose impacts might be absorbed by other institutions should they cease to operate. This is particularly the case in larger cities who have a relatively dense population of universities and other public and private research organisations but is generally ignored in the policy literature which tends to assume a uniform higher education configuration (Marlow et al., 2019).

Despite the somewhat ethereal understanding of the anchor institution concept, the English political and policy environment in recent years has placed increasing expectations on universities to be proactively engaged in supporting their local area (Cochrane and Williams, 2013) beyond the passive direct and indirect effects of their presence (Power and Malmberg, 2008).

6.3   Methodology, **methods and empirical evidence**

In contrast with the other two thematic areas, this research used a combination of inductive and deductive approaches. Three of the five projects involved evaluating existing activities to build new conceptual frameworks, one was an action research piece of work and the fifth involved the development of a framework at the outset to be tested and refined through its implementation. It followed a mixed methods approach (in line with the CR philosophy), using wide ranging surveys to identify surface level regularities combined with in-depth interviews, case study development and critical policy analysis to explore underlying mechmisms and processes.

All five projects had a goal of informing and shaping new and existing policy regarding the role of universities as anchor institutions in place-based leadership. This focus on evaluation and policy-shaping, the mix of induction and deduction and the inclusion of action research clearly pointed to Critical Realism as the most appropriate approach. However, the empirical work across these projects was heavily reliant on the perspectives of individuals in most cases, which can have limitations, potentially resulting in biased or partial accounts. Going forward, this research can be strengthened by improving the plausibility of the accounts generated through requiring respondents to provide impartial evidence to support their claims, ensuring a wider range of actors are included in future investigations and carrying out further cross-checking, comparison and contrasting of the evidence they provide.

This research was conducted between 2014 and 2019. As well as reviewing the academic and policy literatures it involved gathering and analysing a substantial empirical evidence base from

approximately 85 semi-structured interviews with academics, university leadership and non-university regional partners (from the public, private and third sectors) in England, Ireland and Germany. This led to the development of fifteen case studies described in the research outputs listed at the end of this section. It has also included the design and analysis of the results of a 2018 online survey of 110 academics from around the world on the role, contribution and context for their institution in engaging in place-based collaboration.

Acting as project manager on the UK Research and Innovation funded Newcastle City Futures Urban Living Partnership Pilot (2017-2018) involved managing a portfolio of more than fifty projects and a local partnership of over 180 organisations in developing demonstrator and pilot projects for local inclusive growth. The learning from this 'research-by-doing' helped to shape a more nuanced and realistic understanding on the role of universities in place-based development than might have been garnered from the empirical work alone.

6.4   **Findings - gaps and questions for research and policy**

Existing conceptual frameworks and models[6] that aim to help universities and policy makers understand the role and contribution of higher education to local development have failed to recognise (or give insufficient attention to) the impact of the wider local context (economic, social, political), the policy environment for higher education and territorial development or the diversity of management and leadership structures of universities themselves. This has led to the development of static models that rarely work outside of the immediate context in which they were developed and therefore risk resulting in the design of policies that are not fit for purpose. Given this relative disregard for the impact of institutional characteristics and external operating context on the character of the anchoring role, this raises the question ***what are the internal and external factors that impact on local engagement***?

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[6] (e.g. the Triple or Quadruple Helix, the Engaged University, the Civic University)

As has already been described, existing tools and frameworks to understand and describe universities' anchoring roles do not sufficiently reflect the specificities of institutional and place contexts. However as has also been demonstrated, these can have a profound effect on the outcomes or effects of university-place collaborations for local development. Therefore a second question this raises is ***how can a more contextualised approach be adopted to account for the specific circumstances of individual universities and places?***

The failure of existing research to sufficiently address the two questions raised above has led to the development of policies and strategies for involving universities local growth that are not attuned to the local context, leading to place-blind or 'one-size-fits-all' approaches that result in sub-optimal outcomes in collaborations between universities and their local areas. This is particularly pertinent in the current English context where attempts to address local and regional disparities through innovation-led growth ascribe a prominent role to universities. In order to tackle this a third question is raised; ***what are the necessary conditions to shape and inform the role of universities as anchor institutions in implementing strategies for local inclusive growth?***

6.5   **Contribution to addressing research gaps**

6.5.1   *What are the internal and external factors that impact on local engagement?*

Kempton and Hofer (2015) and Kempton (2017) highlight through analysis of empirical evidence the extent to which the external environment shapes the nature of university engagement and thus demonstrate the weaknesses in most of the traditional taxonomies in the academic and policy literature which do not pay sufficient attention to this aspect. This research has introduced some questions and concerns about the extent to which a university is in fact the best actor to lead on place-based, local development initiatives. Issues such as 'stickiness' of outputs and outcomes (continuity and sustainability once funding had ended or key staff had left) were amongst the reservations raised through this work.

This analysis has led to the development of the following framework which incorporates the external environmental and policy context (regional characteristics, higher education and territorial development policies, governance of regional development) and the characteristics of the university itself (history, mission, leadership and management, teaching and research specialisms, mechanisms for engagement etc.). This informed the development of a new taxonomy as part of a Regional Studies Association Policy Expo to understand the roles universities

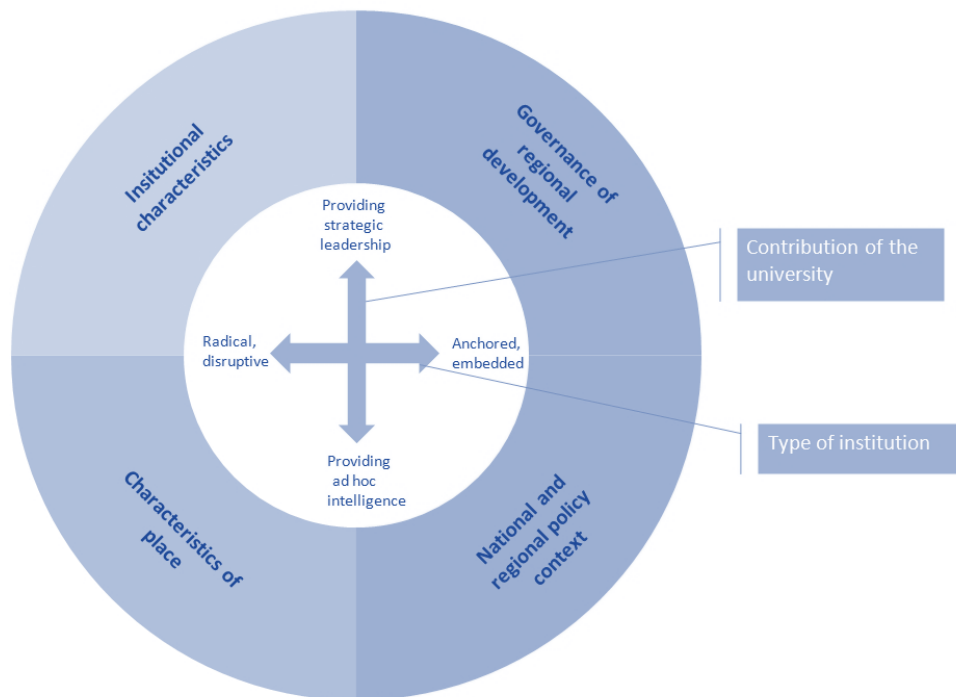can play in their place and what actions, activities or policy instruments might be leveraged to enhance them.

Figure 7   Influences on universities' local contribution

6.5.2   *How can a more contextualised approach be adopted to account for the specific circumstances of individual universities and places?*

In Marlow et al. (2019) analysis of the 37 Local Enterprise Partnership (LEP) areas outside London identified six types of higher education configuration ranging from no 'full service' (i.e. teaching and research across a broad spectrum of subjects including STEM, arts, humanities and social sciences) to multiple institutions with a range of histories and characteristics (e.g. former polytechnics, smaller subject specialist institutions, research intensive universities). The presence of a Russell Group[7] university was assessed as a separate category given the global nature of these institutions and the disproportionate ratio of research funds they account for which results in national and local policy makers affording them a particularly pronounced role in local strategies. A further five broad categories of local governance context were identified, from coherence and

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[7] A self-selecting membership group of the 24 UK universities that regard themselves as world leading

alignment of local structures (with a Mayoral Combined Authority and LEP covering the same geographies) to places where these structures remain contested or unresolved.

Applying this analysis framework revealed 17 separate categories of higher education and local governance arrangements in England (excluding London) and only five cases in which these apply to more than two areas. Therefore strategies and policies that that are contingent on a normative model of university and place interaction are unlikely to be appropriate for the specific conditions of the local operating environment. Furthermore strategies based on the replication of case studies of 'success' from other places are likely to be a fundamentally flawed, and probably futile, exercise.
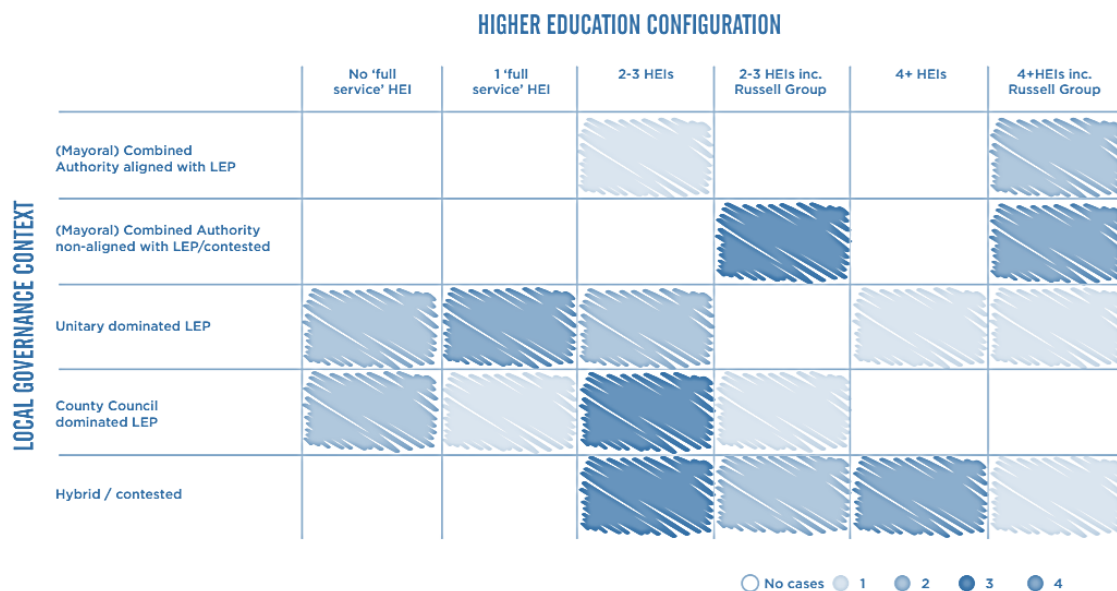

Figure 8 Higher education/local governance in England

The empirical research in this study found that the range of governance contexts at subnational level affects the way universities and local leadership teams can and do interact. For instance, a strong Mayoral Combined Authority overseeing a coherent functional economic area can support a different type of agenda to a much more contested geography with several (often thin) layers of local governance (Pike et al., 2016). A similar point can be made about the institutional density in

the local ecosystem. Where a place has a wide array of institutions (public and private) involved in social and economic development and innovation, the demands placed on even high performing (as defined by national and international rankings and league tables) universities will be less intense than in places where the university, irrespective of its performance, is effectively the 'only game in town'.

As well as highlighting the heterogeneity of university-place configurations, this analysis also challenged the fundamental assumption of university-place collaboration as a normative 'good'. The traditional approach of partnership between the biggest local institutional actors can lead to (or at least, what is perceived to be) opaque deals amongst the incumbent elites for the allocation of local or central state resources. This can result in change being slow and incremental as self-interested preservation of the status quo becomes the key driver and the value that smaller or disruptive actors can bring to stimulate innovation and change is effectively locked out of local decision making. This research has proposed that inclusive growth needs the challenge and dynamism of a range of actors beyond the 'usual suspects' and that large university anchors need to invest in their own agile initiatives operating at arm's length from institutional control in order to drive the process of transformation and change more effectively.

6.5.3 What are the necessary conditions to shape and inform the role of universities as anchor institutions in implementing strategies for local inclusive growth?
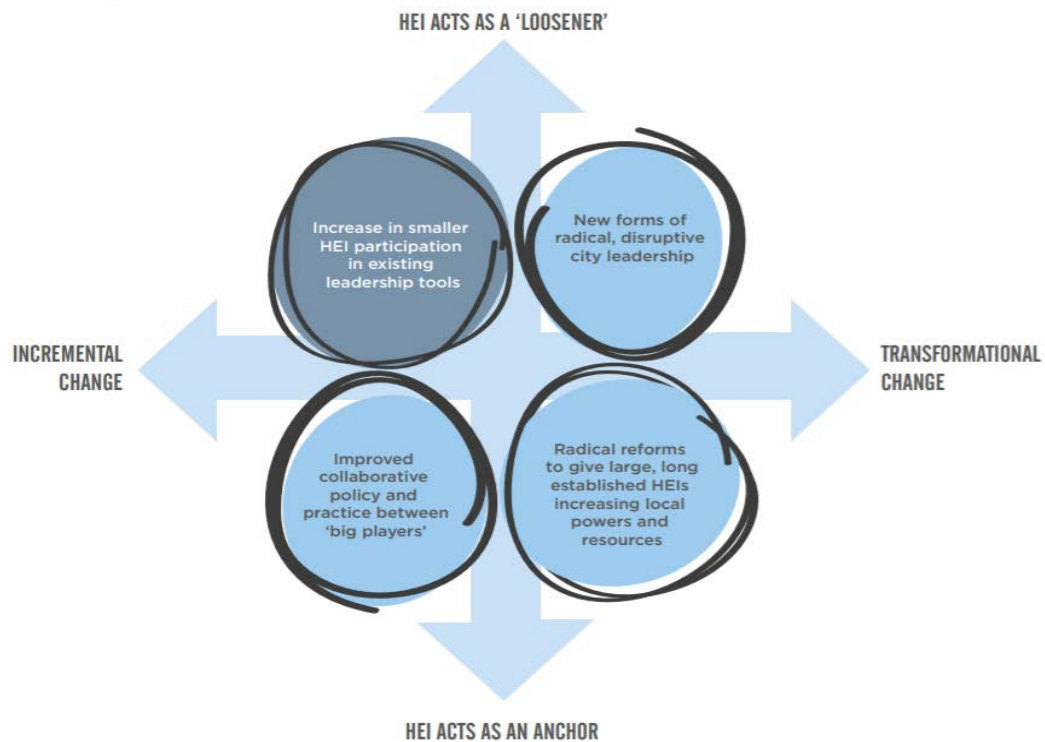

Figure 9 (with David Marlow) The Anchor Provocation

Goddard et al. (2014) explored the different natures of anchoring, showing these can be as much about stubborn resistance to change as stability. It proposed a more rounded understanding of different types of anchoring and how these can best be deployed to challenge traditional partnerships. The most significant contribution of this work was in highlighting the importance of the implications of the place context for English universities and their local areas by demonstrating a clear correlation between institutional vulnerability and poorly performing local economies. This was done through the development of a new configuration of 14 indicators of institutional vulnerability by Kempton, analysed against a set of indicators of economic strength/vulnerability in UK Primary Urban Areas.

This research highlighted how a spatially blind higher education policy in England has failed (or

refused) to recognise the correlation between institutional and local economic performance, which has taken on a new relevance since 2018 following Government announcements indicating their willingness to allow failing universities to close[8]. As the analysis showed, this will have greatest impact in the parts of the country with the poorest economic performance.

The analysis presented in Marlow et al. (2019) went beyond a mere critique of anchor institution rhetoric to suggest a framework of conditions and principles needed for universities to maximise their contribution to local inclusive growth and transformational change. The conclusion drawn from this investigation of eight universities in eight places in England was that there are six key design principles that universities need to adopt in order to play a genuine and holistic role in supporting their local place. These are summarised in the figure below. However (perhaps most importantly) these must be underpinned by a willingness to dedicate capacity and resources including funding to support them. This requires and ongoing and long-term commitment rather than relying on the deployment of ad hoc resources as and when they become available (e.g. through competitive funding awards or expectations of continued funding allocations from central government).
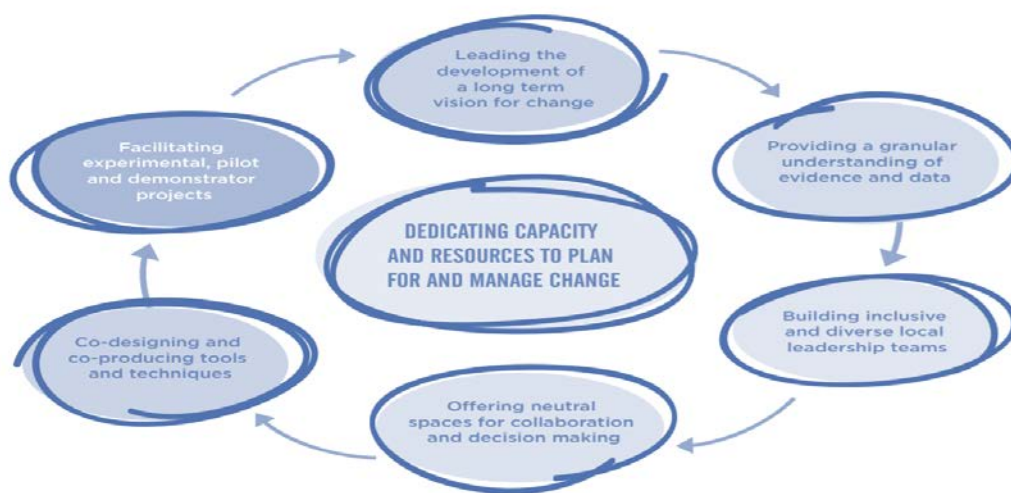

Figure 10 (with David Marlow) The Urban Living Framework

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[8] https://www.bbc.co.uk/news/education-46059457

6.6   Research impacts

This research has significantly impacted both the academic and policy literature concerned with the anchoring role of universities by challenging a spatially blind higher education policy that has failed (or refuses) to recognise the correlation between institutional and local economic performance and by raising critical questions for local economic development in the austerity era which has led to struggling places placing ever increasing demand on their (also often struggling) universities to fill the gaps left by funding cuts and a hollowing out of the local state.

6.6.1   *Academic impacts*

Goddard et al. (2014) provided new insights into the interdependence between universities and their local areas by developing a set of indicators for identifying institutional strength/vulnerability (e.g. finances, domicile of students, research income). It has been cited more than 70 times by authors such as Fumi Kitagawa, Mabel Sanchez-Barrioluengo, Elvira Uyarra and notably by Ellen Hazelkorn, in a book that has had almost 1,500 citations.

Vallance et al. (2019) made an important contribution to the relatively nascent literature on the concept of the quadruple helix and its implications for place-based leadership. It involved interviews with 19 stakeholders in the Newcastle City Futures Urban Living Partnership Pilot project, the analysis of which has helped to build a more balanced understanding of the roles of all the quadruple helix actors and how they interact with and relate to each other and offers new insights into the complexities and challenges of building and managing local collaborative partnerships. Although very recently published, it has already been cited by prominent academics such as David Bailey and Jennifer Clark.

6.6.2   *Policy and Practice impacts*

This work has contributed to the understanding of the heterogeneity of universities and place interactions by evidencing that glib, 'one size fits all' strategies and policies are wholly inadequate to address specific local needs and contexts.

It informed the OECD's programme of reviews of university-region collaborations by providing insights to aid design and delivery of its initiatives and activities, in particular the development of the HEInnovate tool which helps universities to assess their strengths across seven dimensions of their 'third mission' activities. The least developed of these dimensions was the one focusing on regional impact. This research helped the OECD deepen its understanding of what these impacts might be and how they might be assessed and measured.

Most of the key recommendations in the report Supporting Entrepreneurship and Innovation in Higher Education in Ireland (OECD, 2017) drew on the findings from Kempton (2017). These recommendations have been endorsed by the Irish Government, OECD and European Commission (evidenced in the preface). This is informing new higher education policies and initiatives within the sector and individual institutions which will enhance the regional impact of universities in Ireland.

Marlow et al. (2019) provided insights into the contribution of and challenges related to universities' involvement in place based leadership, particularly by contesting approaches that ignore the impact of the policy and governance contexts, regional characteristics and the nature of the institution itself on the way in which universities are driven to or impeded from collaborating locally for shared aims.

It articulated a framework of design principles against which universities and their local collaborators can together understand the nature of the contribution required to make a

meaningful impact on inclusive local growth strategies, challenging initiatives like the Civic University Commission whose starting point is 'what should the university do for its place?' and instead suggesting local leadership teams should ask 'what does the place need from its university/ies?'

It has built the understanding of the ways in which universities can act as anchors in their local economies, the growing dependence on them by policy makers and local partners and identification of the risks of an overdependence which could in turn exacerbate existing institutional vulnerabilities.

It introduced questions and concerns about the extent to which a university is in fact the best actor to lead some of these initiatives. Issues such as 'stickiness' of outputs and outcomes (bearing in mind the mobility of staff and students), continuity and sustainability once funding had ended or key staff had left were some of the concerns raised through this work.

Material drawn on in this section

Projects

Evaluation of Leuphana University's ERDF Programme

Review of the Local Impact of Ireland's HEIs

Newcastle City Futures Urban Living Partnership Pilot

Inclusive Future Places: realising the transformational university dividend

Putting Universities in their Place

Peer reviewed academic publications and book chapters

Goddard, J., Coombes, M., Kempton, L. and Vallance, P. (2014). Universities as anchor institutions in cities in a turbulent funding environment: vulnerable institutions and vulnerable places in England. Cambridge Journal of Regions, Economy and Society. 7(2), 307-25.

Vallance, P., Tewdwr-Jones, M. and Kempton, L. (2019). Facilitating spaces for place-based leadership in centralized governance systems: the case of Newcastle City Futures. Regional Studies.

Research reports and other publications

Kempton, L. and Hofer, A-R. (2015). Lessons Learned from the Lüneburg Innovation Incubator. Paris: OECD.

Kempton L. (2017). Enhancing the impact of Ireland's higher education institutions. OECD Skills Studies. Paris: OECD.

Marlow, D., Kempton, L. and Tewdwr-Jones M. (2019). Inclusive Future Growth in England's Cities and Regions: Realising the Transformational University Dividend. Newcastle upon Tyne: Newcastle City Futures.

7.0 CONCLUSIONS

7.1 Universities and regional innovation

As this research has demonstrated, universities have increasingly been afforded a central role in local and regional innovation policies over the past few decades. This has been grounded in a persistent and pervasive belief that universities have a significant contribution to make and are willing and able to make it. This research has challenged these assumptions, suggesting that seeing universities as a 'silver bullet' for local and regional innovation is a high risk strategy. It highlighted the need for a broader understanding of the contributions universities can make to the innovation eco-system beyond *just* their core missions of teaching and learning and the need to move away from a focus on linear, science-push, commercialisation activities and for research and teaching to be better aligned to regional need. However, as the empirical evidence from this research shows, the experience across the studied universities and their regions has been quite varied. Some have played central roles in the design, development and implementation of local and regional strategies while others have been more peripherally involved. In some cases this might be ascribed to different power balances between the regional authorities and the universities. In some cases where the region is strong with high levels of autonomy the university is just one of many actors in the innovation ecosystem, while in other cases there may be high levels of dependence on the university in the absence of a strong institutional environment; indeed the university might actually be the dominant actor where the regional governance arrangements are weak or even absent. This research has shown that the contributions of universities vary in different settings, are attributable to a range of factors and effects such as institution type, local economic conditions and institutional configuration and the nature of the policy environment locally and (particularly) nationally or even supra-nationally. Policy makers should therefore avoid the temptation to adopt a 'one size fits all' approach to involving universities in local and regional innovation strategies and attune policy design to align with the potential (or limitations) their specific context affords.

7.2   Civic universities

This research described how the concept of the civic university has lacked a strong theoretical framework. It led to the first unambiguous definition of the civic university and the development of a range of tools and frameworks to help university leaders and managers to assess and understand (and even compare) their 'civicness'.   In testing these tools it went on to demonstrate that 'being' a civic university is not simply a binary decision of implementing one model of the university over another. It highlighted the complexity of the 21st century university in seeking to achieve its civic aspirations, evidencing the need for creation of, and investment in, institutional structures to foster genuine engagement. Being (or becoming) a civic university involves constant management of an intricate set of often competing tensions and issues which might not be seen as critical, or even as tensioned, by all staff and management. The empirical evidence uncovered often quite distinct views, perceptions and experiences between staff depending on seniority, length of service and even discipline. The challenges of managing this in organisations that by their nature and convention do not lend themselves to hierarchical 'command and control' management structures are considerable. This analysis led to the articulation of a set of tensioned issues (box 3) rather than binary choices requiring university leaders to strike a balance between both sides of a spectrum (e.g. local vs global) which will move and shift along with changes to the internal and external environments. This research therefore has challenged its own original idea of a civic university blueprint or framework for university leaders and managers by articulating the complexity and often competing nature of the challenges in delivering a civic promise in practice. Delivering a civic mission in ways that best harnesses the creativity of the academy and mobilises it in ways that makes sense to the outside world requires soft leadership, permeable organisational boundaries and permissive institutional frameworks. It calls for both top-down and bottom-up strategies that captures the motivation of individuals and allow for a flexible, reactive approach while also ensuring aggregation in order to maximize impact and ensure quality. The findings of this work call for the need for a more complex understanding of engagement and the challenges of implementing a civic mission. It has attempted to develop this understanding, and rather than

providing superficial solutions offers evidence-based insights from researching universities who are proactively seeking to manage the challenges and tensions inherent in seeking to be both excellent and engaged.

7.3   Universities as anchors for local development

The UK has enduringly extreme and growing place-based disparities in performance and outcomes within a highly centralised system of political leadership. Place-blind strategies are likely to exacerbate the problems they are trying to address. Policy rhetoric suggests that universities are critical anchors in the places in which they are located, both directly as employers and purchasers of goods and services as well as indirectly through the impacts of their research, teaching and public engagement. This is even more acute in institutionally thin places, which tend to be more economically fragile and dependent on universities beyond mere generators of knowledge and graduates. However this research illustrated fundamental limitations to the assumption that universities' place-based contributions to inclusive development is an inevitable consequences their physical presence. Scaling up university collaborations locally may contribute to knowledge-led development at some scale, but the typical outcomes of these activities will most likely disproportionately benefit incumbent local elites in the public or business sector, or even universities themselves. As the photograph on the front cover starkly illustrates, there is no guarantee that these benefits will be shared inclusively, let alone prioritise marginalised and (so-called) left-behind communities and places.

The key recommendation of the 2019 Civic University Commission was that universities should develop Civic University Agreements with the places in which they are located. While this is a welcome development in driving universities to contribute more explicitly to the leadership of place, this research suggests that the implied question ('what can a university do for its place') should be turned on its head and instead ask 'what does the place need from its university(ies)?' It has shown that there is a menu of roles, responsibilities and activities that universities should

assume in order to make a genuine and significant contribution as anchor institutions in their place; indeed, it is argued that this is a precondition for enduring and inclusive future growth. This also needs to encourage and support a suite of approaches involving a diverse range of local actors who can interrogate and test approaches of incumbent anchors and trial new intervention strategies. The exploration in this work of universities' role in place-based leadership suggests places seeking transformational change require inclusive and diverse local leadership teams that cut across and beyond traditional institutional boundaries. It has shown that defining the role and contribution universities in local leadership must be determined by the place rather than the institutions themselves. Thus realising the potential of universities as genuine anchors in and for their place is complex and long haul and recognising and managing this complexity is a more honest and most likely a more effective strategy than those offered by short-term, short-sighted policy fads or quick fixes.

7.4   Topics for further research

As this context statement and the research that underpins it has demonstrated, this programme of work has made a significant contribution to and impact on the literature, policy and practice in the field of university-place collaboration for local innovation and development through addressing the three overarching research questions set out at the start of this document. However, as with any programme of research, new questions inevitably emerged that were not anticipated at the outset and which are currently un- or under-explored in the literature. These therefore warrant further investigation and may even form the basis of a new research agenda.

In exploring the role of universities as institutional actors in local development and innovation this research has shown how in some places, especially peripheral and institutionally thin ones, local universities can assume or be expected to play a dominant role in the local ecosystem. However, as the findings presented here suggests, their potential contribution may be overestimated by both policy makers and universities themselves. This begs a further question of whether the

dominant role being afforded to universities in certain contexts may lead to (or has led to) universities acting as quasi economic development agencies, controlling the design and delivery of public funding schemes to promote local innovation and development. A related question is whether this is resulting in a crowding-out effect as other public and private actors contract or even fail because universities have been privileged by policy makers when distributing funds due to being one of the few local actors with the organisational slack to absorb and resource large programmes.

In its investigation of the concept of the civic university this research has shown how up to now the impact of internal management and processes had been largely ignored as a confounding factor in the realisation of a civic mission. It led to the identification of a set of tensions university leaders and managers are continually grappling with in trying to balance the demands of internal and external relationships. A further line of inquiry on this theme might be to explore the extent to which university restructuring and reorganisation, often in response to pressures such as introduction of new performance metrics or poor performance against existing metrics, leads to periods of internal introspection and an obsessive fixation with internal structures and processes at the expense of outward-facing civic engagement.

The research on universities as local anchors in place-based leadership has highlighted the need for the place to determine their role and contribution rather than the other way around. However, the empirical work undertaken on this theme has also uncovered an issue that has largely been ignored in the academic and policy literature – the nature and impact of the power balances between universities and the local state. In some of the observed case studies universities' capacity and resources dwarf those available to other local institutions and university autonomy coupled with a lack of meaningful devolved powers in the local state means they are unlikely to be motivated to adjust their activities to align with local strategies. In economically strong, politically powerful and institutionally thick places the reverse may be the case as local leadership

design strategies and policies with little or no explicit reference to their universities. In contrast, there are places where the capacity and motivation for universities and the place to collaborate are more evenly balanced, though in some cases this might be because both are equally fragile and vulnerable. Investigating the power (im)balances between universities and place and their effects might lead to further evidence to help support better policy making going forwards.

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ANNEX I UNDERPINNING PROJECTS

Title	Date(s)	Funder/sponsor	Role	Overview of methods
Connecting Universities to Regional Growth	2011	European Commission - Directorate General for Regional Development (DG REGIO)	Project manager and co-investigator	Desk research of the literature on and examples of universities' contribution to regional development
				Development of good practice case studies
				Multiple in-depth interviews with international expert Professor John Goddard on the topic
The Civic University Study Programme	2011-2016	Newcastle University (Vice Chancellor's strategic fund)	Project manager and co-investigator	In-depth qualitative case studies of eight universities in the UK, Ireland, Finland and the Netherlands
				Online survey of 2,000 academics in participating institutions

Evaluation of University-Region Collaboration in Värmland	2013	Region Värmland	Project manager and co-investigator	Semi-structured interviews with 36 stakeholders from the university, regional government and business cluster organisations Analysis of regional, national and European strategies and policies
Universities and Smart Specialisation	2013	European Commission Joint Research Centre (JRC) Smart Specialisation Platform	Principal investigator	Review and synthesis of emerging literature on universities and smart specialisation for a policy audience
Smart Specialisation: A Possible Platform for Support in England	2013	Department for Business, Innovation and Skills	Project manager and co-investigator	Interviews with key government agencies, local authorities and universities Online survey of 165 local authorities, universities and LEPs Case studies of 5 places in England

University-Business Cooperation for Education and Life-long Learning	2013-2014	European Commission - Directorate General for Education and Culture (DG EAC)	Co-investigator	Literature review of the barriers and drivers for university engagement in business cooperation for life-long learning Supervision of the writing of an in-depth case study of Newcastle University's development of an MSc in Offshore Engineering with industry
Evaluation of the Luneburg Innovation Incubator	2015	Organisation for Co-operation and Economic Development (OECD)	Principal investigator	Desk research reviewing university and regional policies and strategies 20 semi-structured interviews with university and external stakeholders during field visit to Luneburg
Review of the Local Impact of Ireland's HEIs	2015	Organisation for Co-operation and Economic Development (OECD)	Principal investigator	Desk research of institutional and national policies and strategies Field visits to 6 HEIs and semi-structured interviews with internal and external stakeholders in each (50-60 in total)

Chancellor of Warwick University's Civic University Commission	2016	Warwick University	Co-investigator	Synthesis/review of previous research and publications on the civic university
Higher Education and Smart Specialisation	2016-2017	European Commission Joint Research Centre (JRC) Smart Specialisation Platform	International expert	Supervision and synthesis of fieldwork by local consultants in Navarra and North East Romania Field visit to North East Romania and co-facilitation of 2 day action learning workshop
Thinking Smart	2016-2018	European Commission Erasmus+ - Capacity Building in the Field of Higher Education	Principal investigator	Work package lead on Entrepreneurial Discovery in HEIs In-depth research over two years with five institutions in five European cities/regions Further interviews and case study development with an additional five institutions

Newcastle City Futures Urban Living Partnership Pilots	2016-2018	UKRI/Innovate UK	Project Manager	Action research through the development and evolution of more than 50 innovation projects with multiple (public, private, social and academic) stakeholders in Newcastle-Gateshead Observations and interviews with 19 project stakeholders
Review of Urban Living Partnership Pilots	2018-2019	UKRI/Innovate UK and ESRC Impact Acceleration Account	Principal investigator	Semi-structured interviews with more than 30 internal and external stakeholders in all five ULP institutions in England plus three further non-ULP institutions
Putting Universities in their Place	2018-2020	Regional Studies Association	Principal Investigator	Extensive review of policy and academic literature on universities and place Online survey of 110 academics globally on university-regional engagement