

ON OVERCOMING THE BARRIERS TO REGIONAL ENGAGEMENT:

Reflections from the University of Lincoln

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Abstract

The University of Lincoln, UK, poses a rather compelling case for studying the role of universities in regional development, having developed from a branch campus to a full-range university during its 20 years of existence, and with an aim of responding to regional economic needs by collaborating locally and internationally. We set a two-fold aim to examine the role of the university in fostering regional development and explore the barriers faced. Data from a combination of policy documents, reports and websites were utilised alongside focused interviews undertaken with internal and external stakeholders including staff members, industry partners, a County Council employee and graduates of the university. It is clear that the university actively contributes to regional development through various collaborations including a local business incubator, Sparkhouse. A collaboration with Siemens has created a 'win-win' scenario where the university has helped to embed the company through a supply of local graduates whilst also developing research collaboration. Various barriers that hinder the university's engagement were identified which call for strategizing and a concerted effort from all stakeholders, especially those relating to graduate retention and development of local infrastructure.

Keywords: Universities, Innovation, Regional Development, Lincoln, United Kingdom.

JEL: I23; O20; O30; R10

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Introduction

The local impact of higher education has drawn interest at both a national and international level. Universities are traditionally seen as providers of education, a source of research and innovation in collaboration with regional businesses, but they also support the development of civic society (Arbo and Benneworth, 2007). This role may be even more in demand in rural areas, where universities are expected to respond to local educational needs and support local industries with their research, though it might be challenging for small-scale campuses (Charles, 2016).

The University of Lincoln (UoL) is an exemplary case of a successful campus in a rural region that has to cope with significant economic, social and environmental diversity. The regional business environment is dominated by micro-enterprises, and the whole region struggles with a relatively weaker skills base than the rest of the UK (UUK, 2001; MES, 2017). Since the turn of the millennium, the region has sought to build on local strengths such as its traditional engineering and agricultural base to encourage regional entrepreneurship, working in collaboration with the university to both increase the number of SMEs and respond to their particular needs (UUK, 2001).

Today, the University of Lincoln operates from two campuses, the main site being at Lincoln Brayford Pool and much smaller Holbeach campus in the south of Lincolnshire, with around 14,000 students and 1500 staff members.¹ This makes it an exception to the typical, rural university campus given that it is rare that a rural region ends up with full-range university instead of a smaller college or a branch campus (Charles, 2016). During its twenty years of existence, the University of Lincoln has grown from a branch campus to a full-range university, currently responding to regional economic needs by collaborating with local businesses and employers, such as Siemens, and serving the large regional food manufacturing sector through the National Centre for Food Manufacturing (NCFM) at the Holbeach campus.

But what are the main barriers of university engagement in a rural region? This study aims to respond to this question by examining how universities in a rural

¹ University of Lincoln, <http://www.lincoln.ac.uk/home/abouttheuniversity/keyfacts/> 10th of April 2017.

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area can overcome the challenges in engaging with its region. Through the case of the University of Lincoln, we will illustrate the ways in which the university actually collaborates with its local partners and businesses thus fostering innovation and engaging with the local community. Consequently, the most active sectors in Greater Lincolnshire to produce new services or products are engineering and agri-food, are also the key areas emphasised in the UoL's strategic plan.

The relevant literature on universities' engagement especially pertaining to rural regions is outlined in the next section, after which the method employed for collecting empirical data is reviewed. An overview of findings, how the University of Lincoln fosters regional innovation and the challenges involved in doing so, is presented after highlighting two cases that demonstrate the university's regional engagement efforts. Subsequently, a discussion of findings that synthesizes empirics and theory is presented, and ultimately the reflections and conclusions drawn from the study.

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Universities' engagement in rural regions

The UK government has focused much effort on encouraging the economic engagement of universities (e.g. BIS, 2013). It is thus widely recognised that universities should contribute to regional development, through the so-called third mission – also referred to as outreach or community service – which goes beyond the traditional core functions of teaching and research (Jongbloed *et al.*, 2008). Encouragement for the third mission is particularly concretised in policies and research funding instruments (Vorley and Nelles, 2009), in which higher education is expected to take actions to facilitate entrepreneurship, technology transfer and interactive learning, building the third mission around their interaction with regional industry and society (Arbo and Benneworth, 2007).

Important actions emerging from the policy documents are partnering with innovative (local) SMEs, and developing and commercialising technologies for national and international markets (see for example BIS, 2013). Undoubtedly, there has already been a significant shift from a more traditional approach to higher education, leading to new models of collaboration for innovation, such as science parks, incubators, increased contract research, consultancy services, access to state-of-the-art-laboratories, and strategic alliances with non-academic partners for joint R&D activities (Jongbloed *et al.*, 2008).

Universities' engagement is mainly influenced by two factors, namely the type of university and the type of region, which together determine universities ability to work together with local stakeholders and engage with regional systems (Boucher *et al.*, 2003). The latter has a significant impact on universities' ability to foster economic development: if the other local key players' capacity to absorb knowledge is limited, it is more difficult for universities to become central drivers of regional development just by themselves (Breznitz and Feldman, 2012). Therefore, universities in a rural environment have to consider even more carefully how and to which local needs they are capable of responding. Firstly, they form an exception to the fact that universities are mainly urban institutes (Charles, 2016). Secondly, the role of universities in building a strong civic society by creating a space for debates and exchanging of ideas (UUK, 2014) may be even more important in rural areas; the most engaged universities are typically "*single, relatively large universities located in peripheral regions*" (Boucher *et al.*, 2003, 984–896). Thirdly, the local role of universities has been globally recognised as a driver

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of regional economic success. In addition to providing education services, HEIs are considered to be an important source of research and innovation, especially in industrial strategy sectors and technology. (UUK, 2001; BIS, 2013.)

Although universities' regional roles include the attraction of talented people, providing study opportunities and supporting both the local economy and the community, these goals can be more difficult to achieve in rural areas, in which the HEIs must deal with a more diverse economic base, very small-scale businesses and a lower presence of other knowledge institutions (Charles, 2016). In particular, the SMEs may not be able to articulate their needs for knowledge, which hinders interaction and potential knowledge transfer between universities and businesses (Jongbloed *et al.* 2008). This also decreases innovation potential in rural areas, in that the potential for innovation is likely to increase with the size of the business (GLLEP Innovation Research Report, 2014). However, for university-industry collaboration location is indeed important; when partners are located in the same area, the networking opportunities increase (Jongbloed *et al.*, 2008).

As Charles summarises, common drivers for rural universities are typically fostering greater participation in higher education, responding to local educational needs – as generic as they may be – and developing research fields linked to local industries, though the latter may be limited for small scale campuses. Responding to all these expectations at the same time is especially demanding for smaller rural campuses, and they often either lack the scale to both meet the educational needs and create true collaboration with local industry at the same time (Charles, 2016). The type of research collaboration is also very much reliant on the disciplines in question, and the universities should seek for mutually beneficial exchange, so that the collaboration responds to the expectations of both parties (Jongbloed *et al.*, 2008). This may again, be more challenging to achieve with more limited curricula of smaller rural campuses.

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Research methods

To elucidate the research question on hand, a qualitative research method was employed and empirical data obtained through interviews with both university and external stakeholders. A qualitative approach was useful in gaining more insight into the topic for a case study of this explorative nature (Yin, 2002; Hammarberg *et al.*, 2016). Interviews, which were typically semi-structured, were valuable for obtaining deeper understanding into the chosen case (Yin, 2002; Hammerberg *et al.*, 2016; Wilson, 2014), as this type of interview structure allows the investigator to probe deeper.

Interviews with staff members of the University included those working at the Research and Enterprise services, the Engineering School and at the National Centre for Food Manufacturing. These choices were guided by the involvement of these departments in on-going university engagement and impact efforts. A County Council member in charge of innovation support processes was also interviewed, the choice based on the active collaboration between the university and the County in regional innovation support services. Industry contacts presently 'engaged' with the university were also approached. Attention was paid to 'engaged' firms in particular as these were deemed better placed to comment on the challenges faced while engaging with the University of Lincoln. Also, including industry perspectives was valuable in evaluating the case in a more rounded fashion (Yin, 2016). Further, three former graduates from the university were interviewed, especially to probe the 'issue' of graduate retention. Altogether, 11 interviews were undertaken from the University, County Council and industry. Given the chosen research question, interviewees were essentially asked questions relating to their experiences of links between the university and local industry, the challenges involved and how these challenges were being managed. As a means to triangulate, data from policy documents, company websites and reports were also utilised. This was advantageous for the development of 'converging lines of enquiry' as suggested by Yin (2016, 87).

The framework method (Gale *et al.*, 2003; Ritchie *et al.*, 2003, 256) was useful for analysing the qualitative data collected, allowing for a similar logic to flow through the entire scope of the study. Collected data was transcribed and coded. Emerging themes were analysed between and across data sets (e.g organisational types) to make meaningful interpretation. Empirical data was also compared to findings

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from secondary sources (e.g document review, websites, etc.) and ultimately to the relevant literature. Validity and reliability of research was enhanced by having investigators swap sections of focus, in order to critique the work in its entirety and ensure that a similar logic flows through.

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Lincoln as an embedded anchor institution

Lincoln is an unusual case as its origins do not lie in the rural environment of Lincolnshire, but in the urban location of Hull. The university started as a series of colleges based in Hull which came together to form the Hull College of Higher Education in 1976. It briefly became Humberside Polytechnic before achieving university status as the University of Humberside in 1992. The move to Lincoln was thus a very unusual development in the UK context and emerged from local demands in Lincoln during the 1990s.

Lincoln had long aspired to having its own university. In the early 1990s the local branch of the Confederation of British Industry (CBI) produced a forward looking document stating that Lincolnshire needed its own university². This was then backed up by the County Council and Training and Enterprise Council (TEC) which sought the possibility of a university college in Lincoln as a satellite to an existing university from the surrounding counties. The County and TEC did not have a statutory duty to develop a university, but argued that they had a statutory power to support the process on the grounds of economic regeneration, and were able to persuade government to allow them to make a grant toward the establishment of a university presence in Lincoln. A project company was thus established to hold a grant of £10 million and to negotiate with a university on the establishment of a campus. Other local businesses became involved in the process and raised additional funds towards the project. An initial agreement was made with Nottingham Trent University, and a site identified in central Lincoln on derelict railways lands beside the Brayford Pool, an old canal harbour near the city centre.

As construction of the first building began in 1995, Nottingham Trent was forced to withdraw as they were unable to secure quota for additional funded student numbers and were presumably unwilling to transfer quota from their Nottingham site. The new University of Humberside was however very willing to step in, would operate a full university presence on the site, would change its name to the University of Lincolnshire and Humberside and would transfer existing student

² This account of the development of the University of Lincoln has been informed by an unpublished paper from David Rossington, the former chief executive of Lincolnshire TEC.

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allocations to Lincoln through relocating departments. The campus opened in 1996.

Over time the university consolidated its position in Lincoln, including acquiring former colleges of art and agriculture in Lincoln that had been acquired by De Montford University of Leicester. As the university gradually transferred departments to Lincoln over time it eventually renamed itself the University of Lincoln and sold off its campus in Hull.

The origin of the university in Lincoln was thus the culmination of active lobbying and funding from the County Council and local business interests and the university has always responded to this in terms of its mission as an anchor institution (Birch *et al.*, 2013), supporting the local economy. In a sense this is ironic as the university is only in Lincoln because it was footloose in the first instance, but having invested heavily in the new campus in Lincoln it is clear that the university has sought to embed itself in the locality and take on that anchoring role.

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Fostering regional innovation in Lincoln

The benefits of the University of Lincoln's role in the local economic regeneration of Lincolnshire are most visible in the city of Lincoln.³ A major channel for the UoL in fostering innovation in local businesses is the Lincoln Science and Innovation Park, established in collaboration with the Lincolnshire Co-operative Society as a hub for investment in science and technology. Currently consisting of the Think Tank Innovation Centre, the Joseph Banks Laboratories and the newly opened Boole Technology Centre, the Science Park is the sole science, innovation and R&D dedicated site for private and public sectors in Lincolnshire. The interviewees thought that the Science Park will eventually attract more big companies, which links businesses with research, but might also influence the curricula design:

'[...] We are getting new businesses to relocate here just because of the university. I think the Science park, Boole Technology Center and Think Tank, is really gaining momentum.' (employee, County Council)

'[...] Facilities attracting big companies might even influence the curricula, which links between research and business.' (staff, UoL).

The Science Park has required the County Council and the University of Lincoln to work together closely, something which builds upon a rather successful history of collaboration dating back to the origins of the University. As part of the development of the park, UoL is running the Think Tank on behalf of the Lincoln City Council under a managing contract, combining commercial tenants and university activities.

In addition to the science park, Lincoln, like many other HEIs, has recognised how important and beneficial it is to strategically support stimulating student entrepreneurship (Gibb and Hannon, 2006). So the University has established structures to provide incubating support for start-ups such as Sparkhouse, originally designed to foster student entrepreneurship⁴ in the creative sector and

³ In 2000–2009 the number of business grew 23% in Greater Lincoln, which is a significantly higher percentage compared to the rest of the county (17%) and East Midlands (17%).

⁴ The Sparkhouse still supports student entrepreneurship for example by providing start up grants.

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to help retain graduates.⁵ The UoL also carries out training for SMEs through externally funded programmes.⁶

Incubator and R&D support services within the university

The Sparkhouse and Siemens collaborations have been highlighted as good practices in recent higher education policy documents (e.g. BIS, 2013). These two cases were chosen to illustrate the University of Lincoln's regional engagement and role in economic development. The Sparkhouse case portrays how the incubator, initially launched by the County Council, has become part of the university's business support services, and how it can concretely support local start-ups and graduate entrepreneurship. The Siemens collaboration, in turn, demonstrates how long-term, strategic university-industry partnership can have multiple benefits to both parties.

Case: Sparkhouse

The University of Lincoln's Sparkhouse, first launched in 2002, is an award-winning business incubator that has supported over 230 new and growing businesses in the region and has created over 370 new jobs.⁷ At first, the incubator was run by the Lincolnshire County Council, and it mostly provided entrepreneur services to students and graduates, especially in the field of arts and creative industries. This was at a time when there was a gap in fostering entrepreneurial skills in the East Midlands' universities. Helping students to start up their own businesses was a way to try to retain more graduates in the area (staff member, UoL).

Since establishing Sparkhouse, the University's role has grown in supporting local SMEs. Besides targeted outreach activities, there are good experiences from providing a single point of entry to local businesses (BIS, 2013), and Sparkhouse currently offers a variety of services to both students and businesses (University of Lincoln, 2010). The business support services include business planning advice,

⁵ According to 2014/2015 graduate destination survey, 42.7% of graduates stayed in East Midlands and 13.4% in the East of England. The East Midlands breakdown shows that Lincoln is the most popular destination (40.5%), followed by North Kesteven (10.0%) and Nottingham (8.0%).

⁶ E.g. Innovation Programme for Greater Lincolnshire.

⁷ Sparkhouse, <http://www.sparkhouseincoln.co.uk/> 20th of April 2017.

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mentoring, finance services, training and access to specialist support and also networking opportunities among tenants.⁸ Sparkhouse still offers possibilities to students from entrepreneur skills training to small grants to start their own businesses with ERDF funding.

All services combined, the incubator's role is to shape the local economy, but also makes Lincoln more attractive as a city (staff member, UoL). Though facilitating networking is not a part of Sparkhouse's core functions, the sharing of facilities with other start-ups creates a sense of community.

Case: Siemens' Collaboration

This university-industry collaboration dates back to 2008, when Siemens made a long-term commitment to produce turbines for industry and power generation in Lincoln, and expand its R&D and product innovation processes. The systematic collaboration required more highly skilled workforce and enhanced the region's R&D capacity (University of Lincoln, 2010). One of the major outcomes is the establishment of a new school of engineering in 2009⁹ (Charles, 2016), the UK's first purpose-built engineering school in 25 years. The school received significant financial investment of £7.3 million from Siemens Industrial Turbomachinery limited (SITL), EMDA,¹⁰ Lincolnshire County Council and £ 4.3 million from HEFCE¹¹ (University of Lincoln, 2010).

According to the Wilson Review (2012), the Siemens-University of Lincoln partnership which has produced 'industry-ready' graduates from the School of Engineering, has also resulted in the generation of six times the turnover of the original business plan, provided major business benefits for the company as well as research outcomes for the university all while protecting IP and observing commercial sensitivities.

8 Sparkhouse, <http://www.sparkhouseincoln.co.uk/> 20th of April 2017.

9 University of Lincoln, <http://www.lincoln.ac.uk/home/abouttheuniversity/keyfacts/> 10th of April 2017.

10 East Midlands Development Agency,

<https://www.gov.uk/government/organisations/east-midlands-development-agency-emma> 21st of April 2017.

11 Higher Education Funding Council for England.

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When looking at the student employment rate in the Graduate Destination Survey 2014/2015 of University of Lincoln, the School of Engineering does significantly compare better to the whole university. The graduate level employment for School for Engineering is 90.91 % compared with 71.89% at the overall university level. Siemens is also the most frequently mentioned employer of graduates (UoL, 2016, Graduate Destination Survey 2014/2015).

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The 'challenge' of engagement

The challenges faced by the University of Lincoln, in its quest to engage with its local community can be said to be both internally and externally generated as shown in Figure 1 below.

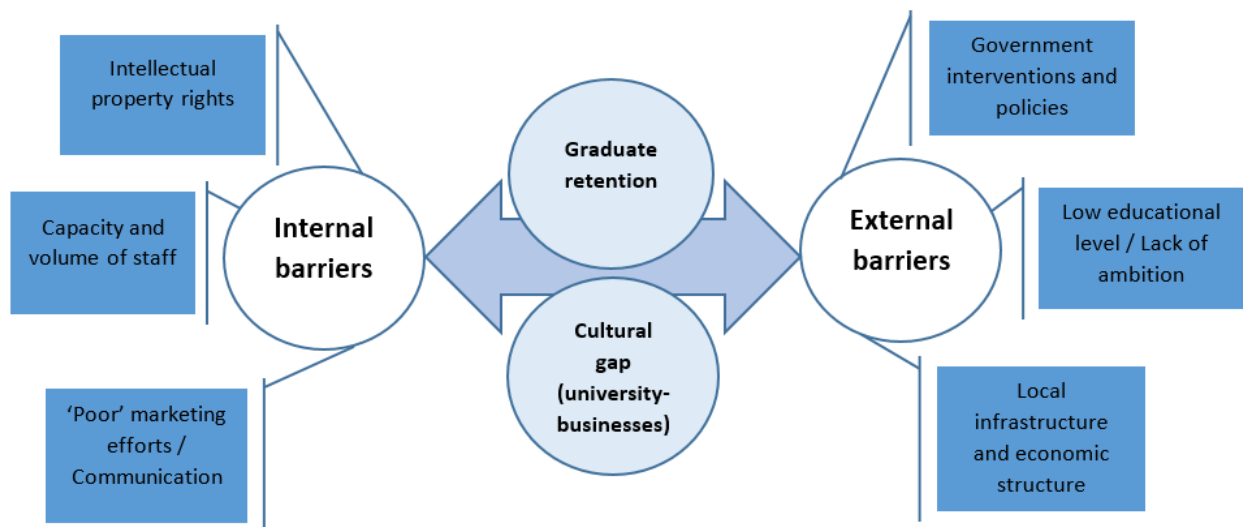


Figure 1 - Case of Lincoln - Internal and external constraints hindering engagement in Lincolnshire.

A '**cultural gap**' exists between the university and its industry collaborators especially bordering on issues of inadequate marketing observed a through lack of information on 'engagement' opportunities on the university's website, and 'relatively' slow response time. Industry partners who are used to a quicker response time than experienced from their university partners find this to be a challenge with engagement. This challenge as exemplified below, calls for better understanding between collaborating partners and a sense of urgency from the side of the university when industry is concerned.

'[...]You get a referral come in, or a question that could have led in a lot more, but we did not respond quick enough, it went to the wrong people, somebody didn't understand it...I think the understanding that has to take place between industry and academia takes a lot of time and experience to navigate your way through it. If you look at a relationship like Siemens and the school of engineering that's a

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very good example where it's worked well because there is that level of understanding between academia and commercial aspirations' (staff, UoL).

Besides engaging with local businesses, this gap hinders collaboration with local authorities, and promoting the university's regional role:

'[...] so how can we help to promote these offices, it's really about knowing who is the right person to go to, what's the structure of each school, [...] it's just that for us it's important to know who's the 'go to' person in which school, which are the offices wanting to work the businesses, just to be clear so we can provide routes.' (employee, County Council).

Managing **issues of intellectual property** poses a challenge where the *'University academic is interested in publishing a finding, whereas his Industry partners are more interested in patenting it'* (staff, UoL). The issue here lies in finding a good balance between the industry's 'money-making' ambitions and the University's 'knowledge dissemination ambition', which may be challenging to always achieve in practice.

For University staff actively engaged in community outreach within the food sector of the county, having **enough staff** who could engage in training efforts to the locals remains an issue suggestive of the need to invest in more 'outreach staff':

'... I am expected to know the entire breadth of qualifications and curriculum because you have to do that, because you can't go to a company and say, well I'll get somebody to get back to you...' (staff, UoL).

Government interventions and policies, such as the 'apprenticeship levy'¹² which require effective communication and informing of the local businesses on the changes, and 'Brexit' for instance were found to be significant challenges with

¹² The UK government is committed to boosting productivity by investing in human capital, for ex. Through the Apprenticeship Levy, introduced in 2017. It is a levy on UK employers to fund new apprenticeships: the levy will be charged at a rate of 0.5% of an employer's paybill and each employer will receive an allowance of £15,000 to offset against their levy payment.

<https://www.gov.uk/government/publications/apprenticeship-levy/apprenticeship-levy> 14th of August 2017.

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regional engagement efforts by the university. This is seen for example in the sense that

'when Brexit was announced, some of our clients lost 20% of their workforce overnight and you know the shock waves that happened [...] those sorts of things impact on us hugely because we have to be proactive in trying to find solutions with them [...] our challenges are externally-driven, political challenges' (staff, UoL).

'Brexit' has also raised worry concerning the funding for business support and R&D in the future:

'Brexit, when the vote was out, many of our businesses thought that the European tap is closed at once, and they have been really pleased that we have still been able to run our programmes until the end of their life cycles. For us, there is a real worry that there's going to be a huge gap [...]' (employee, County Council).

A local **infrastructural deficit**, relating to the road network to access very rural parts is a challenge with broadening engagement efforts. This, as expressed by an enterprise partner of the University working in the food sector made it challenging to *'share advancements in the food sector in the county'* (industry partner, NCFM).

The rural, **geographically diverse environment** of the county also makes it more difficult to reach businesses outside of Lincoln, and many of the businesses are not aware of their possibilities. *'--getting to those business that are hidden away, which are very busy with production and actually haven't got chance to lift up their head and see what support is out there: how do we reach those and make them aware of what's available and that's our biggest challenge'* (employee, County Council).

Though Greater Lincolnshire's economy is relatively stable, its large share of land-based **economic structure** does not embrace innovation as it is more challenging to release resources for investment. The area has many family businesses, which typically are looking for lower risk and long-term investments *'[...] there is a lot of family businesses in Greater Lincolnshire [...] that lends itself to the degree of stability, because those family-based businesses look for long term investments, they have an eye in the future giving the business to their children, so they tend to be a little more risk-averse and there's this link between risk and innovation, it is an interesting one.'* (staff, UoL).

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A **low educational status** of people in the county was found to be affecting aspirations of people in the county. This issue was found to be generational and requiring careful management. The following typifies the challenge:

'[...] we have low skills aspirations for those who do stay in the county [...] we have a university academy and if you look at the 11 year olds that are coming into our academy [...] we hear stories where they have never picked up a book before because their families don't have any books at home, very low aspirations [...] you have 3 generations now of families who were land workers, factory workers,...and you now want first generation people who might be dreaming of going to university one-day' (staff, UoL).

Interviewees described that there is a large innovation potential in Lincolnshire, but also **lack of ambition** hinders economic growth *'[...] the challenge of the Greater Lincolnshire is the ambition [...] and I think we have the key role in driving ambition in Greater Lincolnshire as a whole and there are many (businesses) that are very innovative but don't recognize their potential.'* (staff, UoL).

Generally, a problem with **graduate retention** in the county was re-echoed in interviews. This was found to be the case for various reasons including lack of jobs and the graduate's dream to live in the big city. For example, *'[...] well there are no jobs, some who could actually get jobs just have the big cities like London on their minds'* (graduate, UoL). It was also noted, that the University of Lincoln has already taken actions to support graduates to stay in Lincolnshire, such as work placements at Siemens that might lead to employment after graduation, and discount schemes for post-graduate studies. Also, a more employer-led curricula design was seen as one of the solutions:

'Tailored curricula is an example on how universities can respond to the changing needs of the markets, by combining [...] teaching material and practices from the right businesses to basic degree programmes' (graduate, UoL).

But despite these initiatives and possible job opportunities, the personal situation of a student – especially family relations – steers their choices to stay in a particular region.

All these constraints were observed to be interrelated and somewhat overlapping, especially the **graduate retention** and **cultural gap between university and**

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businesses, which were identified to be both internal and external barriers hindering the university's regional engagement and contribution to economic development.

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Overcoming challenges to regional development

Universities are constantly pushed to reassess their role and relationship with the identified main stakeholders and communities. Understanding and managing the diverse partnerships as well as avoiding undesirable consequences of adopting new collaboration models requires considerable strategic planning (Jongbloed *et al.*, 2008). This study set out with a two-fold aim to examine how a university in a rural region could foster regional innovation, and what challenges are involved in doing so. The logic employed was that, by understanding the modes of engagement and challenges involved in doing so, reflections on how the university could strategically overcome the barriers to regional engagement could be made.

A key role of universities in facilitating economic growth is defined by their cutting edge research capability in their respective fields, innovation expertise and wide collaboration with businesses (BIS, 2013). They are in a unique position due to their capability to bring together external knowledge and research links with local students, actors and ventures, enabling global knowledge exchange in local processes, and thus increasing the innovation capacity of rural areas compared to relying solely on internal knowledge processes (Charles, 2016). This lends very well to the case of the University of Lincoln, which actively engages with its local community, through various partnerships based on competence and leading research.

The University of Lincoln's rapid growth and expansion of a range of degree programmes demonstrates that a full-range, multi-disciplinary HEI is more likely to be able to cater for different local needs from education services to research collaboration, and the organisation is capable of adapting rather quickly to the emerging local needs. This is not, however, a typical set-up for a rural campus, despite the university's brief history of being a smaller branch campus. It seems that the fast growth of the organisation has allowed the University of Lincoln to surpass the common dilemma of smaller campuses to either specialise in a region's vocational needs or focus on fewer disciplines linking teaching and research activities to the region (Charles, 2016).

The regional innovation support services have become somewhat dependent on the university, especially in incubating support (Sparkhouse, Think tank), but also

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providing training for SMEs (e.g. Innovation Programme for Greater Lincolnshire¹³) or engaging with regional innovation policy (GLLEP's Innovation Council). The University of Lincoln's major role in the regional innovation processes, especially for start-ups, makes it easy to forget, that HEIs are not the only providers of high-level research and innovation support services for the business sector (The Wilson Review, 2012), though as typical for rural regions, there are fewer knowledge institutions in Lincolnshire. Thus the University has managed to secure this position besides the County Council as a key driver for regional innovation in just twenty years.

Universities tend to be considered as fairly "fixed" institutes in the regional development literature, with a weak capability to adapt to the changes of the external world. Despite being a hub of highly skilled people, their organisational capacity for strategic planning is seen as rather limited (Charles, 2016). At the same time the growing diversity of partnerships makes universities more integrated with society, also demanding more from management so that the HEIs do not become overburdened by the claims of the stakeholders (Jongbloed *et al.*, 2008, 308). This poses even further challenges to rural campuses, which are typically expected to respond to the needs of the local economy. As Charles emphasises, these demands may be more diverse and complex than presumed, varying from more traditional sectors such as agriculture, tourism and services to high-technology manufacturing (Charles, 2016).

The University of Lincoln's strategy aims to conduct research that contributes to local challenges which can also have global significance. The university's "living lab" approach strives to find solutions for regional problems that can be transferred multi-nationally, especially in personalised health, agri-food technology, creativity, digital arts and archives and rural communities. (UoL Strategic Plan, 2016–2021). It is, however, a big challenge to balance research excellence and relevance and to find a profitable combination of the local and the global (Benneworth and Arbo 2007, 30, Sit. Rip 2000). This is especially the case when the challenges in doing so are not all within the university's reach to solve (e.g. externally-generated challenges created through new government policies and initiatives) and the

¹³ See <http://lincsinnovation.co.uk/>.

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specific elements of operational environment, such as local infrastructure or economic structure, which hinders university's regional engagement.

Government policies and interventions play a major role in developing business-university collaboration, but in the end it comes down to the collaboration and actions between individual universities and businesses to determine whether the partnership is successful (The Wilson Review, 2012). In the case of the University of Lincoln-Siemens collaboration the success is a result of committing to a long-term strategic collaboration, which is equally beneficial for both parties and building the partnership solidly on university core functions, education and research – though a wider impact on the local industry and innovation are typically harder to achieve (Charles, 2016) and also identify. It is also worth noting, that a deep employer collaboration may, especially in curriculum design, steer research orientation. The widespread anticipation of the future development of national policies in post-Brexit era may change the present approaches to innovation support services and university-collaboration patterns, for which more hands-on strategising is expected; especially in the area of communicating with, and educating the local businesses on what to expect, and how to apply themselves to expected changes.

Despite the University of Lincoln's quick transformation from a branch campus to a full-range university, the surroundings remain rather rural, and as typical for such regions, they rely heavily on small and micro businesses and lack knowledge based businesses (Charles, 2016). The ongoing expansion of the university is without a doubt a challenge also for its management. The University of Lincoln's strategy 2016–2021 addresses the issue with the concept of a "tough leader", which refers to the spirit of innovation and experimenting new practices in teaching, research, partnerships (UoL Strategic Plan, 2016–2021). It goes without saying however that with the ongoing expansion, the university would need to attend to the requirement for more 'staff' especially in support of ongoing engagement efforts that require outreach into the rural community.

In the light of the actions the university presently employs to foster engagement and the identified challenges involved in doing so, it remains a question of, what it would take for the university to overcome these challenges, and from a cost-benefit perspective, which strategies would be worthwhile. The coming years will reveal how the university will continue to combine innovation support with university's core functions in other emerging sectors beyond engineering and food

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manufacturing, such as business services and visitor economy (Lincolnshire, 2016), but also if the region will manage to retain more graduates who are essential for knowledge transfer from the university into the local businesses. It will also remain to be seen if the university is able to maintain their rather dominant role and cater changing regional innovation support needs or if other major innovation support providers emerge to the area with an increasingly highly-skilled population.

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Conclusions

The aim of this explorative work was to examine how the University of Lincoln fosters engagement with its local community and the challenges involved in doing so based on which reflections on how to surmount the identified challenges could be made. By approaching this from the perspectives of the 'engager'-being the University of Lincoln and the 'engagees'- partners of engagement in the local community, deeper insight was obtained.

As far as fostering regional engagement is concerned, it appears that there is the need for the university to strategically understand and manage the diverse partnerships to ensure a continued contribution to regional innovation support services. In addition to the established good practices, such as industry collaboration with Siemens and Sparkhouse's incubator support services, there remains a number of barriers to overcome for increasing the university's regional engagement in the future. Building a bridge over the "cultural gap" between the university and businesses requires enhanced and more focused communication and marketing activities, but also enough committed staff members. Despite the leading role in regional innovation and economic development, the University of Lincoln has a limited capacity to respond to some of the identified challenges by itself, such as graduate retention and development of local economic structure, both of which demand a wider collaboration with businesses and local authorities.

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