The persistent problems of universities' contributions to regional development



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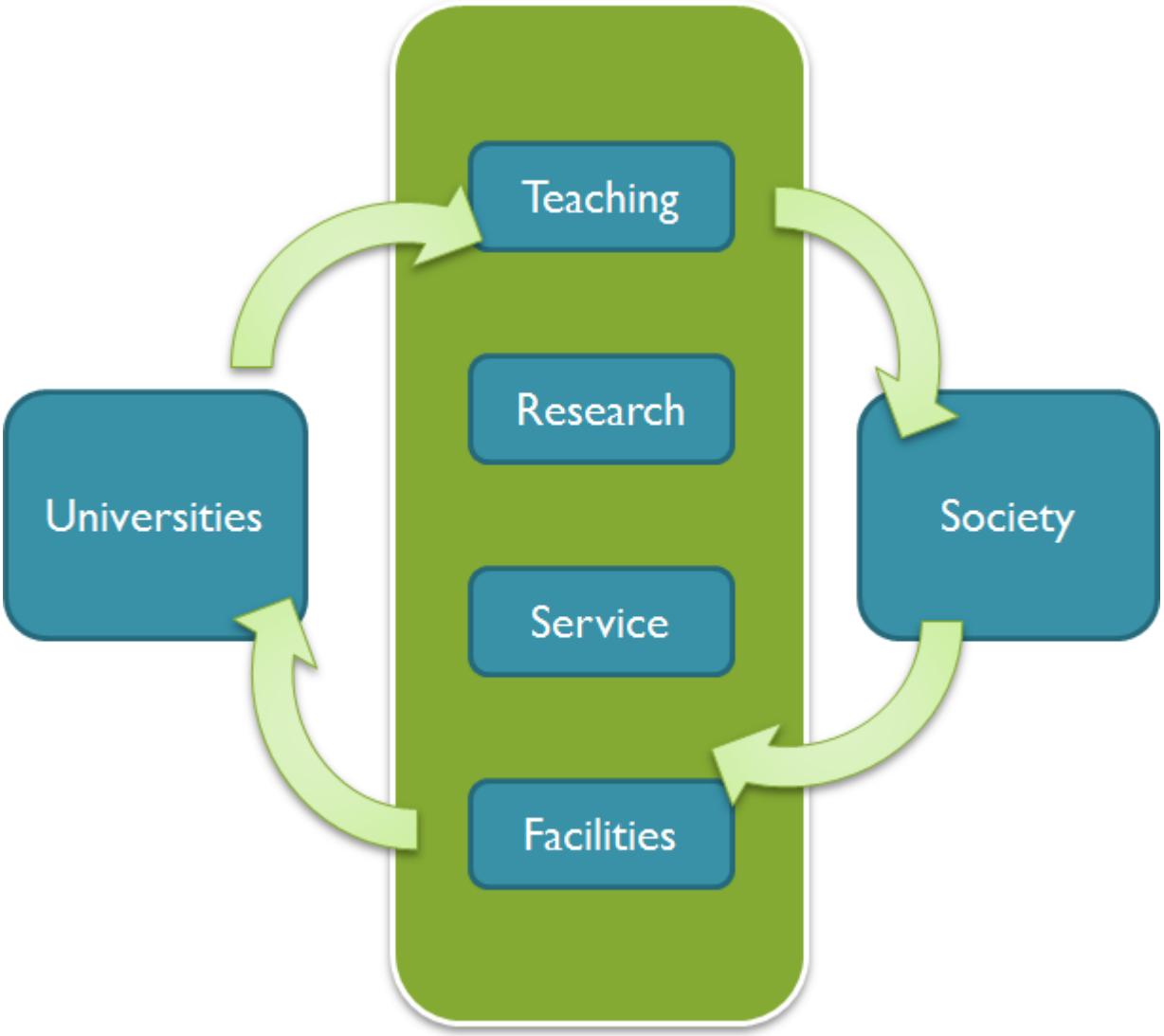
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Paul Benneworth and Lisa Nieth consider how conceptualisations of universities as agents of regional development have evolved over the past four decades and suggest that to truly realise this ambition a more contextualised approach to university-region interactions is needed.

:Introduction:

It is now 35 years since the OECD's Centre for Education Research and Innovation published their ground-breaking report "The university and the community: the problem of changing relationships" (CERI, 1982). This is arguably the first time that a multi-lateral organisation made a call for universities to be more actively engaged with their immediate communities, identifying three kinds of community with which universities might engage. Alongside professional communities related to particular educational specialisations (e.g. medicine) and philosophical communities related to particular ethical backgrounds (e.g. Catholic universities), the report also identified neighbouring communities as absolutely critical partners for universities to be able to contribute effectively to their host societies. In making the claim, the report's authors clearly recognised that universities and other kinds of higher education institutions are social institutions, and through carrying out their core teaching and research activities, they become entangled with and important to the places in which they live.

Figure 1. The interactive relationship between universities and their host societies

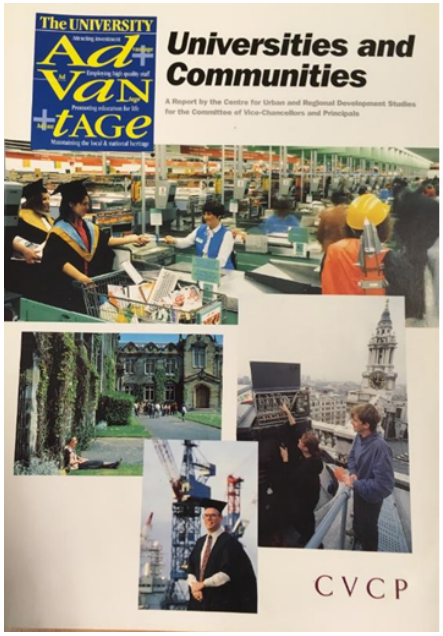


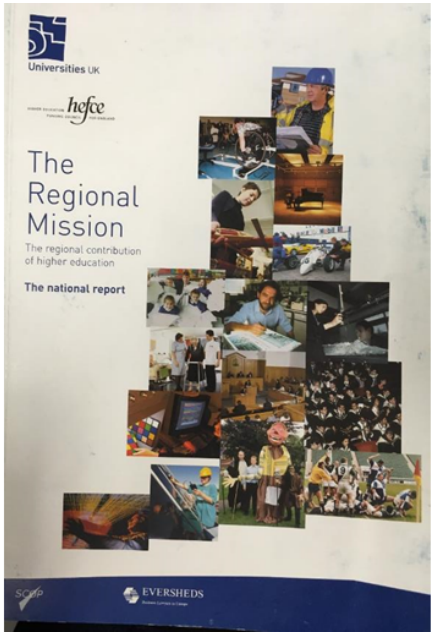
This neighbourly role played by universities has become increasingly more important in the intervening years, and with the adoption of the orthodoxy of smart specialisation strategies, universities have been placed by policy-makers as being absolutely central to regional economic development policy. And yet, policy makers have realised that encouraging universities to stimulate regional development is not quite as simple as it first appears. Universities are highly complex organisations, unlike many other regional development actors, sometimes described as being 'loosely coupled knowledge communities', a piece of jargon that equates to them being as easy to strategically direct as a herd of cats. Universities produce knowledge in many different ways, from experiments in the laboratory to student placements with community groups in socially-excluded districts, and there's no overarching single mechanism by which this takes place. The people that create knowledge have their own motivations and pressures, and sometimes this can make a regional engagement strategy irrelevant; in the face of the "publish or perish" attitudes now taking over

universities, it is a brave researcher who prioritises regional engagement over their individual and department's survival. This makes it hard for the university to develop a standardised approach to regional engagement, and likewise hard for regional partners to engage with universities because of the unpredictability of their responses to request for regional input

This is not a problem that is easily addressed or solved, and since the CERI report, many organisations, including the UK's Committee of Vice Chancellors & Principals, England's Higher Education Funding Council, the OECD and the European Commission have all sought to produce policy analysis and guidelines to optimise universities' regional contributions. The European Commission are currently funding a Marie-Curie Skłodowska network entitled "The Role of Universities in Innovation and Regional Development" (RUNIN) with 14 Ph.D. students addressing scientifically various components of this deeper conundrum. With this Spotlight article, we seek to illuminate one particular dimension of universities' problematic involvement in their regions, around their participation within regional innovation coalitions. Although it is clear that universities *can* play important roles in stimulating regional engagement, the last five years experiments with smart specialisation strategies have revealed that there are limits to the reality of what can be delivered. But what these problems do is provide a starting point to identify where the pinch points lie in these engagement processes, and to think about the necessary approaches to ensure that universities can realise their potential, and contribute most effectively to delivering, smart, social and sustainable regions globally.

Figure 2. We have been talking about universities and regional development for a long time.







Universities' contributions to the smart specialisation agenda

The launch of the RUNIN project (see above) is one sign that there is still considerable uncertainty regarding how universities can be encouraged to contribute to regional economic development. Universities may potentially make many contributions, through their direct economic impacts, their labour market effects, their technology transfer activities and even to social innovation activities. But there are also reasons why universities do not always deliver those contributions deriving from the complexity of universities as institutions. In 2013, John Goddard and Paul Vallance put forward a new normative model, the Civic University, in which universities could adopt a permeable institutional boundary with a committed set of university managers to deliver regional engagement. Given the increased policy emphasis on regional engagement, it is interesting to question why the reality of the implementation of this model has been much more difficult to achieve in practice. Although there are many examples of regions where universities have been engaged with their regional actors, there remains a sense that this engagement has somehow underperformed the transformative potential it offers.

We argue that the persistent problem remains that whilst regional policy actors see universities as being critical for the delivery of their regional innovation goals, universities do not necessarily see regions as vital for their own survival. Universities have been placed under many different pressures, to compete to

attract students, to acquire research funding and to maximise their income. An ideal type model has emerged, even for more regional-facing higher education institutions across Europe, where regional activities are seen as being less rigorous and less worthy than excellent research. Therefore, even those institutions that are strongly committed to regional engagement face continual disincentives to prioritise regional engagement, and even where universities declare a regional mission, circumstance may mean that other priorities are adopted in practice. And this tension has been nowhere more evident than in the ways in which universities have been encouraged to participate in strategic regional innovation approaches.

Since the early 1990s, European regional development policy has converged around a version of strategic change in which partners come together to agree long-term visions and directions of travel for their region, then coordinating their shorter-term plans to achieve these goals. This approach emerged through experiences in the 1990s with the experimental Regional Technology Plan programme, in which 11 European regions in the then 12-member states drew plans to harmonise and streamline their publically-funded technology support activities. This experiment became formalised in the mid-1990s in three regional policy areas each associated with a different Directorate General of the EU, the Regional Innovation Strategies programme from the Regional Policy DG, Regional Innovation and Technology Transfer Strategies from the Research DG, and the Regional Innovation Society Initiative from the Informatics DG. Each of these three policy experiments discovered for themselves a similar way of working, namely to gather all partners together, map provision and demand, identify strengths and weaknesses, and in consultation with peer reviewers develop an action plan to address gaps and weaknesses. Although universities were not necessarily very evident within the RTP strategies, in this second wave of more established programmes, universities were central partners for these strategies, in terms of the knowledge they possessed, the technology transfer services they offered, and also the strategic imprimatur that their senior managers could bring to these regional policy discussions.

The main critique of these approaches came in that they led to the development of Identikit regional strategies in all but the most successful regions with the most obviously well-functioning regional innovation systems. Policy-makers wanted to develop growth sectors in their regions, higher education wanted investments in

the research base, with the consequence that almost every European region developed its strategy based on the idea of building new industries around some permutation of biotechnology, nanotechnology, information and communication technologies and renewable energies. The mid-term review of the European Union's strategy for building the world's most innovative economic space (the Lisbon agenda) concluded that these approaches were too rigid. The High Level EU expert group "Knowledge for Growth" argued for the introduction of a new approach, smart specialisation, in which regional partners gave themselves the space to identify genuinely novel sectors by combining existing regional strengths to fill new niches (the so-called entrepreneurial discovery process). Entrepreneurial discovery was introduced in 2009 as a conceptualisation seeking to explain how to deliver a 'bottom up' regional strategic process that identifies the unique key areas of specialisation, based on a region's existing strengths and potentials. Within this, actors from diverse backgrounds (i.e. companies, universities and public organizations) are intended to take centre stage of the entrepreneurial discovery process and work together to identify a collective direction of travel.

With the Structural Funds from 2014-2019 being dependent upon regions having a regional innovation strategy based on a proper analysis of strengths and weaknesses coupling to an entrepreneurial discovery process, the smart specialisation approach has become ubiquitous in European regional policy circles. This approach aims to re-direct the focus of support to strategically chosen priority domains which have high potential for innovation and spillovers and create long-term economic development. In this context, expectations on universities to be involved in Smart Specialisation processes and impact on the European innovation performance are high and have evolved significantly in the last years. What the entrepreneurial discover process has meant for regions is an increasing interest in, and pressure to deliver, the kinds of activities that exceed the traditional university missions of teaching and research. These are extremely broadly-based, covering activities ranging from stimulating an entrepreneurial spirit, advising local industry, promoting and training graduates (ideally in cooperation with regional industry), developing and hosting incubators, or providing knowledge input to networks and industry clusters. But at the heart of this lies the role of universities in working to agree the smart specialisation strategy, creating a strategic framework to ensure that university activities are aligned towards the region in ways that help to drive this regional

transformation. And it is in these strategic activities, seeking to couple university activities to their regions at a high-level, in which the challenges of university regional engagement become clear.

Universities as strategic actors in regional innovation coalitions

What underlies all these new approaches to regional innovation policy is that they are very heavily dependent on well-functioning and constructive regional collaboration, cooperation, and discussion within what have been called 'regional innovation coalitions' (RICs). These groups of a broad range of local actors (from organisations as different as regional authorities, companies, universities, etc.) work together around future-oriented processes of collective strategy formation. Here, working together means that actors need to initiate and continue discussions as well as find common grounds on regional strengths and novel business areas. Within this process of strategy formation, taking place jointly between various actors, universities are 'suddenly' assigned a role outside their traditional functions of teaching and research. By providing local expertise and intelligence, depending on their regional embeddedness, universities have the potential to become an important asset within RICs.

It is possible to identify three kinds of role that universities can play in these regional innovation coalitions that are undertaking these entrepreneurial discovery processes. Firstly, universities can be actively involved in defining the parameters of regional strategies because of their detailed knowledge of gaps and opportunities, by analysing the local innovation environment to identify smart areas with strategic potential. Within this role, universities can either 'merely' deliver input towards the definition of smart strategies, or can even lead those processes as regional innovation leaders. The level of responsibility taken by a university within the definition of smart specialisation strategies ultimately depends on many contingencies specific to each region, such as the backgrounds of university managers, the orientation of scholars towards engagement, the demand from the region for scholars to engage and the openness of the regional policy community to university actors.

Secondly, universities can be important contributors to regional capacities in terms of institutional and social attributes. By networking and participating in projects with actors of the regional and international knowledge community (in and outside of these coalitions), universities contribute to the development and

consolidation of norms and values in their local environment. They can potentially have an impact on developing attributes like mutual trust between stakeholders, the willingness of engagement and cooperation between partners, a shared understanding/vision of what success and failure means in particular regional settings, and the development of a common language that will eventually facilitate communication between actors. Although this role does not specifically relate to individual entrepreneurial discovery processes, these institutional and social attributes provide the region with strategic capacities to manage the entrepreneurial discovery processes effectively. This helps the region to arrive at meaningful smart specialisation strategies identifying new potential growth opportunities rather than simply proposing the usual basket of high-technology sectors.

A third element that universities can also contribute in relation to smart specialisation policies is the creation of external connections outside of the immediate innovation system. Technologies are developed and exploited on different scales and the smart specialisation approach therefore encourages regions to create trans-regional links at national and international level to facilitate this exploitation, and upgrade the region's position within a wider spatial division of labour. Universities are quintessentially knowledge institutions, and even when their teaching and research activities are embedded into national policy/regulatory frameworks and dovetailed to regional demand, international knowledge norms remain important points of reference for these regional universities. Academic researchers cooperate internationally according to their practices and research interests and can therefore provide RICs with connections that would be out of reach for other regional stakeholders.

Beyond happy family stories of universities in regional innovation coalitions

Within the European Union, particular regions have been used repeatedly as examples for how successful smart specialisation strategies have been defined and translated by regional innovation coalitions with strong engagement of universities. One example of those success stories can be the clusters that developed in Southern Germany around industries like machinery, automotive, printing, and electronics, where universities together with regional public and private actors developed existing technologies to create strong growth in related fields and industries. Universities were able to support the construction of

regional specialisation by helping to advance technologies from one sector to a sector close enough for the technologies to be applicable ("related variety").

The challenge here is that although less successful regions may seek to mirror the successes of these best-practice regions, that cannot simply be done by adopting the processes and practices in these successful regions. Partly this is because less successful regions do not have the vast array of innovation resources and a dynamic group of entrepreneurial firms to implement activities as foreseen in innovation plans, with many activities remaining unimplemented. But there is also a problem that in more successful regions, many of the kinds of problems that less successful regions face will be absent and that positive outcomes may simply be the result of a well-functioning regional innovation system rather than a specific regional policy intervention.

We see here similarities to the problem highlighted by Lagendijk & Oïnas (2005) as one of the weaknesses of the analyses of 1990s regional innovation policy. Policy-makers have accepted relative straightforward narratives of universities working with regional partners, often encoded within 'happy family stories'. These downplayed the coincidence and serendipity upon which successful outcomes often depended and the tensions and barriers that need to be overcome to deliver the potential regional strategic benefits. Thus, universities in these less innovative regions, which are precisely where innovation policy has to succeed if it can make a difference, face a number of specific tensions that might undermine their ability to constructively contribute to delivering regional strategic improvement activities.

There are a variety of reasons that universities may not prioritise regional engagement, and therefore fail to actively contribute in these three areas. Firstly, regional development may not be particularly lucrative for them, and therefore they may pursue other activities and strategies that bring more guaranteed and regular funding. Secondly, they may believe that they lack the capacity to engage in entrepreneurial discovery processes given the way that entrepreneurial discovery has been framed as a private-sector led process, and a realisation by many in higher education that engagement activities can bring costs as well as benefits with them. Thirdly, Higher Education Institutions might resist participating in these coalitions in an active high-profile way because they do not bring many direct benefits to participating universities, particularly where there is a fear that regional partners may seek to encourage the university to

overspecialise in particular kinds of market-ready education and consultancy activities that are not necessarily compatible with sustaining a long-term, high-quality knowledge base. Finally, there may simply be a mismatch between the profile of the university and that of the region, making it hard to identify areas in which university knowledge can meaningfully be applied to drive regional development benefits.

Towards a more strategic agenda for university-regional collaboration

It is common to dismiss the concerns of universities around these problems as being related to universities' nature as ivory tower institutions who do not wish to engage with real-world problems. The reality is that universities have never been ivory towers, and have always had strong sponsor dependency, but that regional sponsors tend not to be as important as other kinds of sponsors that are pushing policies for excellence and internationalisation that are often in practice incompatible with effective regional engagement by universities. We therefore contend that it is necessary to get beyond simply criticising universities and instead to consider how regional engagement can be made compatible with the kinds of organisations that universities are, and the other pressures that they face from their other sponsors.

A first issue here is that universities are not only misunderstood, but also under-problematised by policy-makers, who assume that the diverse actors within universities can simply and cooperatively follow strategic missions that are imposed in a top-down format. There is a whole genre of university management literature that seems to believe that simply writing a strategy for regional engagement and it being endorsed by university leaders is enough to transform institutions. This ignores the critical nature of universities as we have previously highlighted as being "loosely coupled" systems. Although academics may be difficult to direct towards regional engagement, there is a good reason for that, because research questions and agendas are set within extended (often international) disciplinary communities. Likewise, there is no natural scientific logic for researchers to work with academics in other fields, particularly where those other fields have divergent research agendas and even divergent definitions of what constitutes good research. It is extremely alluring for university senior managers to identify common themes around which their researchers can come together to drive regional engagement within entrepreneurial discovery processes. But if these researchers are from disciplinary backgrounds that do not

mesh together effectively, then these managerial steering attempts will achieve at best nothing and at worst inflict damage by undermining their academics' capacities to deliver good research in the eyes of their peer communities.

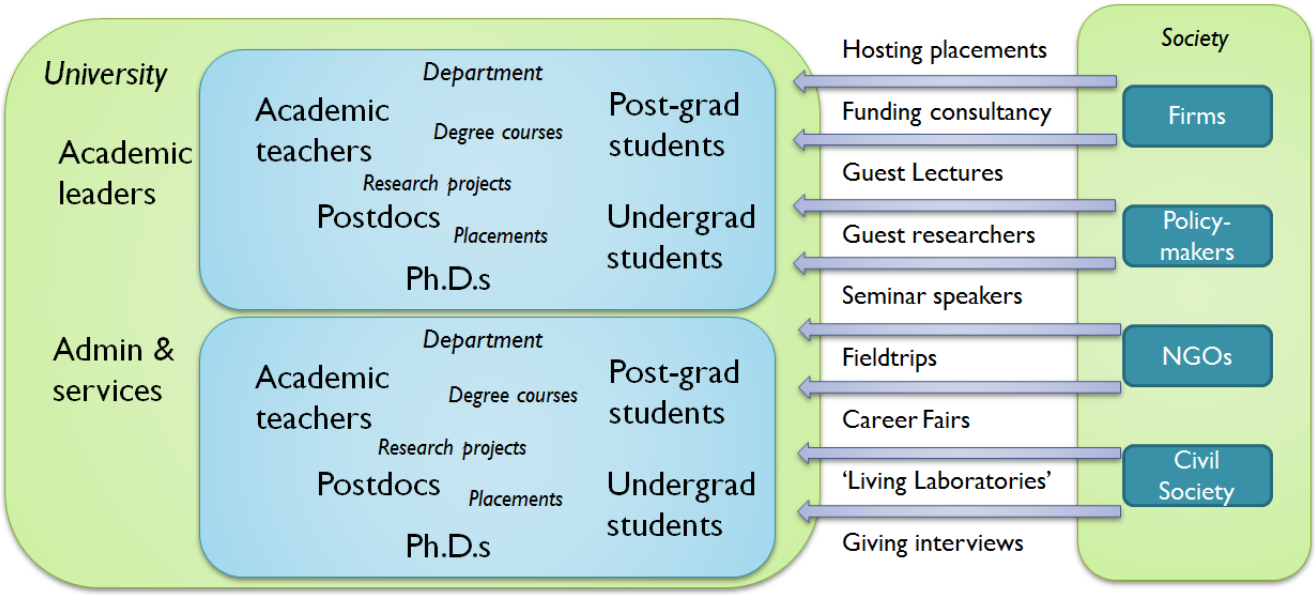
A second issue is that universities are rules-led communities – science is fundamentally about trying to direct resources to the best activities which requires very strong rules about what is 'good' and what is not good, and it is hard to generate common rules for what 'good' regional engagement activity is that are equally applicable to all disciplines. Whilst within cognate disciplines, it is possible for academics to define what is good research, university structures involve comparing very different kinds of activities. Universities seek to ensure for example that their staff members that are promoted are sufficiently competent, and that means that promotions committees (particular for senior appointments) compare academics from very different disciplines. This means building rules that define, for example, what constitutes excellent teaching or an excellent publication record. These rules have to be able to deal with a humanities professor that writes one book every five years and teaches in classes of ten with an engineering professor who co-authors tens of papers a year and gives lectures to theatres packed with hundreds of students. The problem with regional engagement is that it is all too often seen as being an alternative to excellent research, and so what university rules end up defining as 'good' (for example in promotion committees) is often related to income generated rather than the manifold ways in which all kinds of researchers regularly engage with regional partners in the course of their knowledge creation activities.

Finally, the motivations for researchers to engage with regional partners for example in defining smart specialisation areas are not immediately clear. The reality is that the smart specialisation strategy approach was introduced as a call to change behaviours to prevent regions becoming locked-in to their old-fashioned innovation policy approaches. But academics are already engaged with their regions, so when entrepreneurial discovery processes demand that they do something new, to discover new kinds of relationships, this carries implicit demands. This might be that they abandon their existing productive relationships to seek out uncertain new ones, or it might demand that those academics who are not already engaged (and for whom regional engagement is not necessarily of added value) seek out partners for engagement. This seems to have a strong adverse selection effect, discouraging those academics already effectively

engaged and encouraging activities that do not contribute to core university activities.

So how to deal with these two institutional characteristics of universities? Most obviously and most importantly is to acknowledge that universities are complex institutions, and that regional engagement needs to create benefits for those universities as well as for the knowledge-exploiting partners (innovative businesses). This is not a call for regional innovation funds to invest in fundamental research activities, but rather for regional innovation policy-makers to consider the ways in which university academics make use of regional projects to deliver their core missions. Universities are organised into distinct subunits in which staff and students work collaboratively on different kinds of 'project,' whether that is a degree course or research project, and regional partners can make all kinds of input into those processes (Figure 3). The key challenge for regional strategic processes (including entrepreneurial discovery) is to deal with this diversity in the kinds of benefits which universities derive from participation (and which by no means are simply reducible to subsidy income).

Figure 3. The micro-interactions with society underpinning university regional engagement



We have been wrestling with the issue of universities and regional engagement for 35 years now, and unless there is a fundamental change of perspective, it is likely that we will not move forward in the foreseeable future. Universities are knowledge communities that revolve around generating synergies between

similar kinds of activities held together within a single institution comprising many dissimilar actors. Yet knowledge of the kinds of instruments, policies and strategies to support these mutually beneficial transactions remain restricted to a limited number of best practice regional examples. These regions have found ways to support these natural interactions alongside the exceptional interactions stimulated by entrepreneurial discovery processes. It is this more systematic consideration of these natural interactions and the appropriate regional and higher education policies to stimulate these value-added collaborations that RUNIN is currently seeking to address. And it is precisely these questions that need to be addressed to finally rise to the challenge of helping universities to collaborate with their regional partners and drive a transformation towards smart, social and sustainable societies.

Note

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Paul Benneworth was a senior researcher at the Center for Higher Education Policy Studies, University of Twente, the Netherlands, and at Agderforskning, Kristiansand, Norway. Paul's research was focused on the dynamics of innovation and regional development and in particular the ways in which cooperations and coalitions function in supporting regional innovation processes. *We learnt of the*

passing of Paul Benneworth on Tuesday 12th May 2020 (In Memoriam of Paul Benneworth).



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