Neue Formen der Kooperation in regionalen Innovationssystemen
Jahresbericht Vol. 7

Institut für Innovation und Technik in der VDI/VDE Innovation + Technik GmbH
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Elisabeth Epping (Epp): The higher education system is coined by several reforms and initiatives over the past years, aiming towards restructuring and preparation for dealing with global challenges. What do you consider to be the main challenge for higher education systems these days and what are the implications hereof?

Paul Benneworth (PB): From a higher education perspective, the greatest system-wide challenge for universities is that of massification. If you have a system where universities are elite institutions, then they can enjoy a very close relationship with a governance system and they can be governed by exception rather than by regulation. But we are getting to a situation where universities are almost as ubiquitous as schools, and under those conditions, this exceptionalism is no longer tenable. Just as it’s unreasonable to expect every primary school or kindergarten to have a direct line to the Minister, universities are having to slowly come to terms with the fact that they have to ‘play the game’ along with other similar public institutions, and at the same time contribute actively to the challenges of an increasingly global, knowledge based society. Behind the rise of accreditation agencies, of the drive for research excellence, and indeed the lure of the World Class University and the league table lies a fundamental, if unpalatable truth, and that is that universities are increasingly being held accountable for what they do: if they are going to thrive, they need to be able to best present their benefits, and make the case for why they are the best institutional form for organising that activity. Much of this modernisation agenda is ultimately related to a changed relationship between universities and the state, from a special negotiated relationship to a normalised one. And when relationships are normalised then it’s fair for the state to ask what do universities give back to society in return for all that public investment.

Epp: We indeed see that higher education institutions in Europe are increasingly being held accountable for their activities and their contributions to society. This holds particularly for the two core missions teaching and research – think for instance about performance agreements with governments. Yet it is often claimed that public value is to a large extent also created by means of the “third mission” of universities – the knowledge transfer.

PB: I am a bit careful about using the phrase third mission because it carries a sense of being something extra that universities do. On the one hand, it can have a connotation of universities making extra effort for society, and hence justifying extra recognition. But on the other hand, it also has a sense that it is something alongside the other key tasks of universities, of the teaching and research. So I always urge audiences not to create an artificial distinction between teaching, research and the “third mission”, but realise that these missions are inextricably – and for good reason – intertwined. By bringing together communities of students together with communities of researchers, new knowledge is created, transmitted, and diffused out into society. Bearing that in mind provides a different
lens through which to look at what universities do; they provide teaching and research that has societal value. Taking the alternative lens, of societal impact as an essential element of core activities, the question then becomes where can synergies emerge between universities and society. This point of synergy is absolutely central – universities don’t create benefits for society just because it is a worthy thing to do or to create a positive media image. Rather they create these benefits because engagement activities are also a means for universities to enrich those core missions: effective engagement adds value to teaching and research. So rather than talk about the “third mission”, I prefer to think about core added-value engagement activities, things that universities do that create value for societal beneficiaries but most importantly also enrich universities’ own teaching and research activities.

Epp: Can you give some examples of what you have in mind when you refer to these core added-value engagement activities?

PB: Take a walk around any campus today and you’ll see hundreds of these activities taking place, whether guest lecturers from businesses or the public sector, students addressing external problems in graduation projects, students working in science shops or volunteer centres to solve societal problems, professors writing newspaper columns, giving interviews, offering advice, speaking to politicians and policy-makers. Indeed, you see regional partners actually coming to the university – the municipalities, provinces, governments, and asking or even demanding that universities find ways to work collaboratively in driving socio-economic development. So much of what universities do in these core knowledge processes is fundamentally embedded in society in a diverse ecosystem of behaviours, norms and practices. The reality is that universities have always been fundamentally societal institutions, and what we can sometimes think of as “new modes of co-operation” like science cities or technopoles are really just new expressions of activities that have in a way always been important to universities.

Epp: This indeed comes close to a daily campus routine that you would have in mind. But how does this look like when looking at rather traditional disciplines and fundamental research? How can core added-value engagement activities can take place here?

PB: In nanotechnology, for example, contemporary engineering researchers are being confronted with some really thorny ethical questions about the direction research should take, and so it’s only natural that they should speak with ethicists and applied philosophers. At the heart of this is what you might think of as “scholarly conversations across borders” – that might be a Plato scholar speaking with someone researching the ethics of cyborg life, or a science policy researcher working with public focus groups to work out where Germany draws the line in human implanted augmentation technologies. What’s important here in promoting these “scholarly conversations across borders” are the shared languages by which knowledge gets exchanged, not just from universities to society, but also between disciplines. Don’t

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**Center for Higher Education Policy Studies (CHEPS)**

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become obsessed by getting your pure philosophers to engage with the public if it doesn’t make sense, but even pure philosophers or physicists or whoever do need to be having conversations with those outside their immediate academic area if we are ever to benefit from their undoubted insights. Knowledge travels on legs, and the heart of value-added engagement is people daring to have discussions outside their immediate fields of engagement. Ultimately the best institutions can do is find ways to recognise, support and value those activities and the benefits that they give to core university capacities.

**Epp:** What do you see with regard to core value-added engagement when you look at Germany?

**PB:** Germany has both strengths and weaknesses in this situation. The existence of a fiercely independent professoriate provides a strong foundation of individuals with the knowledge and the freedom to enter into dialogues with societal partners to develop shared languages and ultimately ensure their knowledge becomes useful. The German university system was at least partly created as the most effective means of creating a skilled industrial elite workforce and national technical knowledge basis, and there is no sense that German universities need be or are cathedrals in the desert. Although the dynamics of societal engagement may be different to other countries, Germany’s enduring innovative economic strength is a testament to a national economic development model in which universities, as with other sectors, play their roles highly effectively.

**Epp:** When you refer to the different dynamics of societal engagement in other countries, do you have an example of and an explanation for this in mind?

**PB:** In the Anglo-Saxon model for instance, academic freedom is a duty to pronounce and reflect on any question which one feels qualified, regardless of whether peer reviewed research has been undertaken to address that question. The Rhenish model conversely allows professors to set questions free from outside interference but is to some extent laced with an expectation that one must not overstep what one has specifically researched. The big risk for Germany is in failing to harness and exploit the knowledge of university activities that take place outside the formal experimental-deductive paradigm and which are more exploratory-interpretative in nature. Of course Germany has a rich tradition of humanities and social science scholars as public intellectuals, but there could be more recognition that this status exists symbiotically with core academic duties, and indeed more effort to ensure that core research activities reflect on ways to create public dialogue, value and understanding.

**Epp:** What are instruments and ways to encourage universities to deploy these engagement activities and allow for synergies to emerge?

**PB:** I’d like to reframe the question to what can universities and policy-makers do to best support this diverse societally-embedded knowledge ecosystem around their campuses. Firstly, you’ve got to avoid the problem that a mechanism becomes seen as something outside core activities – imagine the tensions that arise when you’ve got a technology transfer office approaching all the best post-docs, and persuading them to leave science to set up spin-off companies with university knowledge. It becomes seen as an alien intruder infecting the healthy academic body with commercial germs, and naturally raising resistance amongst antipathetic staff. So the first rule is to avoid thinking in simplistic terms and reducing the third mission to something that’s about making money or indeed about anything else than what staff are fundamentally motivated to do – and that’s the best teaching and research.

Secondly, you need to make sure that your scientists have the best chance to fit engagement into what they are doing. That means that any university-wide system you promote recognises
that there are many different forms of engagement, and there’s no one-size-fits-all model imposed from above. If your incentive schemes promote very restricted versions of engagement, like patents or licensing, then you’re only going to speak to a tiny minority of staff, and at the same time, you’re giving the vast majority a sense that engagement is not something for them. So ensure policies have discretion to allow people to embrace engagement positively – allow people to include engagement in their appraisals and celebrate diverse forms of engagement. Science is a team game and knowledge is created in “knowledge production” chains involving many contributions. It’s easy to get obsessed with the last step in the chain, where society sees the benefit, and praise the person that takes that step. But there are lots of other steps in the knowledge production chain before society sees the benefit, and a responsible manager will want to encourage others to also be pushing the agenda forward. The region might be clamouring for universities to orient their research towards questions of immediate regional interest, but the reality is that such partners often have an attention span measured in months, whilst academic knowledge mostly is not a ready-made but builds up in decades. The art of effectively managing all these practices in universities is holding these pressures together.

Epp: What do you consider to be the limits and risks of a strategy promoting core value-added engagement?

PB: The risk is where public policy comes in with dull, instrumentalist approaches to promote engagement that end up reducing it to something that most academics feel is alien to them. In the UK, funding has been introduced for the “third mission”, but in reality it is just more money for the stronger universities. But in parallel, the UK has pushed forwards its support for public engagement for example with Research Councils now asking researchers to show their pathways to impact in proposals. That means when they write funding bids they have to plan their projects in ways that include the kinds of “conversations across borders” that might see research be societally beneficial. And despite promising to introduce third mission formula funding schemes, both Sweden and the Netherlands have held back from rewarding engagement by formula precisely because of the reductionism and game playing it encourages. Some Swedish universities played with the idea of trying to reward media appearances, but if you think about the easiest way to get media coverage, then you quickly come to memorable media experiences like so-called Cold Fusion or the Diederik Stapel case, both clear examples of undesirable behaviour in science, so just incentivising media appearances per se does not promote the kinds of behaviours that benefit either universities or society!

Epp: How does a good “third mission”/engagement strategy look like?

PB: At the heart of a smart “third mission” strategy is in policy-makers understanding diversity, and ensuring that universities have the scope to encourage that diversity. If universities are going to deliver the “third mission”, then what is most important is that engagement is an intrinsic part of what scientists do. And policy-makers need to be encouraging researchers to incorporate extra-disciplinary knowledge in their research. This can happen in various ways, in terms of the way they perceive problems, set questions, plan projects, execute research, and disseminate with users, all helping to make their research better aligned with the interests of other groups – other disciplines and societal users. Some people might want to refer to these activities as new forms of co-operation, but that’s a somewhat misleading term suggesting disconnections between academic and societal knowledge. However, if you look back to the first issues of the Transactions of the Royal Society in the UK in the 1660s, then what you see was that there was no distinction made between scientific and societal knowledge, that’s a distinction created in the 19th century and really is formalised in the post World War II period. The challenge now is actively recognising
and valuing knowledge transfer to society in a broader sense as a norm for academe as much as publishing in international (read American) journals. Clearly there is a role for the Ministry and funding authorities like DFG in ensuring that these norms change, and ultimately, help steer universities towards maximising their contributions towards their regional localities, the federal states, and the global community.

**Epp:** What do you think are “highly localised” roles of universities in regional innovation systems (RIS) and in what respect do new forms of cooperation enter the agenda of innovation policy?

**PB:** RIS models are trying to explain why regularities of interactions build up between universities and firms in innovation. What is so surprising about these interactions is that on paper, universities and firms should be free to find the most relevant innovation partners globally and work with them, and of course in many cases that does happen. But “knowledge travels on legs” and what can happen within regions is that universities and their local firms have a range of different interactions in parallel that help them build up a gradually closer band. So you graduate from a university and then go and work in a local business, but you still have contacts with your friends who might be working as Ph.D. researchers, and contacts with your professors. You take one or two students on placements, and might meet up with the professor and discuss your problems informally, and over time, a shared knowledge base can build up simply because of a few simple almost co-incidental interactions. So maybe a better starting point is identifying opportunities within territories to strengthen and join up these interactions, and create regularised interactions that can lead to competitive innovation and hopefully new growth waves.

**Epp:** Finally, a personal question: What are your favourite “third-mission activities” or in your own words “core added-value engagement activities” and which ones would you like to explore in future?

**PB:** As a boy growing up I was a big fan of the James Bond films and particularly the Q laboratory side with the outrageous devices, the fountain pen rockets and ejector seat gyrocopters, underwater sports cars. So I suppose that has stayed with me and I like it where you see universities taking this really quite abstract fundamental research being embodied into really clever products that make you think “how did they ever think they’d get away with that?!” Like little sieves that form spheres of an exactly precise diameter so you can deliver asthma drugs with perfect accuracy into the lungs. That, if you’ll pardon the pun, takes my breath away.

Policy often tries incentivising people by playing on their economic side and reducing knowledge transfer strongly to university spin-off companies and patents. But many researchers are not motivated to go to work to generate additional income. They love to solve problems in creative, reflective ways, and I think that studies and discussions on the third mission run the risk of losing that. I’ve been working with a colleague in Spain, Julia Olmos Peñuelas, on trying to deal with these motivations and passions with a degree of systematic and scientific rigour, and all I can say at the moment is “watch this space!”.

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