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One World, Many Knowledges

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Chapter 4

University transformation: a crisis for the social sciences and the humanities

Tor Halvorsen

It was always a bit of a lie that universities were self-governing institutions. Nevertheless, what universities suffered during the 1980s and 1990s was pretty shameful, as under threat of having their funding cut they allowed themselves to be turned into business enterprises, in which professors who had previously carried on their enquiries in sovereign freedom were transformed into hurried employees required to fulfil quotas under the scrutiny of professional managers. Whether the old power of the professoriate will ever be restored is much to be doubted.

JM Coetzee, Diary of a Bad Year, p. 35.

WHEN A RESEARCH UNIVERSITY IS TRANSFORMED, relations between its faculties and disciplines are transformed, too. The reverse is also true: when the relative importance of disciplines and faculties shift, the nature of a university as an institution changes.

In this chapter, I discuss how the European Union (EU) led by the Organisation for Economic Co-operation and Development (OECD) seeks to reform both its universities and the relations between disciplines and faculties. I focus, in particular, on how these university reforms seek to make tertiary institutions useful as sites of ‘innovation’.

Knowledge and society

In recent decades western nations have been labelled as ‘post-industrial’ society (Bell 1973), the ‘technological society’ (Berger et al. 1974; Habermas 1968), the ‘knowledge society’ (Stehr 1994), the ‘risk society’ (Beck 1985), and the ‘reflexive society’ (Giddens 1990). All the OECD countries have experienced the development of ‘expert systems’ in both the public and private sectors (Weingart 2010). The social sciences have also developed theories of modern organisations, analysing how knowledge and power shape our collective behaviour and institutions. In the modern world, it seems that

only organisations that can learn seem to thrive (Wagner 1994). Society is becoming increasingly formal and differentiated, and knowledge is becoming a driving force behind both the internalisation and the institutionalisation of the values of the modern world.

The main slogan, however, does not focus on organisational or societal learning related to the internalisation of values, but rather on narrower ideas about economic change. The most frequently used descriptors of the relationship between society and knowledge are terms such as the 'knowledge economy' and 'innovation'. In other words, the terminology has shifted in focus from *society* to the *economy*, from *learning* to *innovation*. The consequences of this shift for the social sciences and the humanities (and particularly for the latter) have already been dramatic at a number of universities in several countries. Some of these consequences are potentially very negative, not only for the societies served by the affected universities but also for a variety of economic actors. But the primary concern is the threat to the role that universities have played in the past proponents of democracy within and beyond nation states.

Developing an alternative to the rhetoric of innovation

I argue that we need to hold on to the idea of modern society as a learning society. More controversially, I also argue that this means we have to defend the old-fashioned Humboldtian-inspired university. By this I mean universities that value academic autonomy, interfaculty interaction and research-based teaching, while they focus on producing students, and ultimately PhD candidates, of high calibre; universities that study and teach both the humanities and the sciences, and, that, as time goes by, absorb new disciplines in the image of the old, as new *faculties* of knowledge.

Today's universities of *innovation* seem to be universities of engineering, with this faculty transforming all the other disciplines and faculties in its own image. As John Higgins, a prominent scholar in South Africa has argued, this 'entrepreneurial' kind of university may lead to a one-sided focus on the so-called STEM disciplines (science, technology, engineering and mathematics), and thus to a neglect for the disciplines that promote the knowledge necessary for a learning society: namely, narrative, analysis, interpretation and literacy (NAIL).¹ In line with Higgins's argument, I would also suggest that it is time to turn the old debate started by CP Snow in 1959 on its head, but also (more than the Snow debate allowed) to focus on the interplay between various faculties.

From a learning society to an innovating economy

The change in use of terminology about how knowledge and society shape each other indicates a shift in reality that has a bearing on the position of the research university in society, and thus on how society gives support to and tries to reform this. For example, if Jürgen Habermas (1981/1984) feared that the life-world would be suppressed by universal cognitive and technical rationalities (but that this could be counterbalanced by a strengthening of the ‘discourse democracy’), such fears seem to be less prevalent today. Another change is the tremendous growth in the number of ‘experts’ and ‘expert systems’. No longer do these necessarily emerge from universities. They are often shaped and created by large organisations within the economy and the public administration sector. Sometimes they are later formalised as disciplines within higher education. Examples are ‘financial management’, ‘computer programming’, ‘environmental studies’, and even ‘gen tech laboratories’ – all of which first emerged within organisations that produced their own specialties. Knorr-Cetina (2001) talks of epistemic cultures across different kinds of organisations including, but no longer prioritising, universities. A third change, linked to the previous one, is what Helga Nowotny and her colleagues named as the transformation from Mode 1-type to Mode 2-type knowledge production. Universities must understand that knowledge and ideas now develop in epistemic cultures, to which research universities contribute but no longer have a monopoly on creating or even necessarily dominating. The focus has shifted to innovation. Innovation is change driven by the users of knowledge. Knowledge is demand driven, and therefore best supported by a cross-disciplinary expert system. According to this view, the old academic disciplines tend to resist change, since change crosses disciplines. From this perspective, the role of a university is to be part of growing an expert system, and the role of the social sciences and humanities is to support such knowledge development, and *focus on the social/human implications and consequences of innovation* (Nowotny 2010).

Innovation versus the educated person

The much-debated Berlin university (of 1810 and onwards) united what, at that time, were the research activities of the natural sciences with those of the humanities, for the sake of giving the new leadership (and the growing bureaucracy) a degree of independence as academics. Clark (2006) highlights Schleiermacher’s anti-French attitudes by referring to his description of the French ‘evil of specialisation’ as being ‘infected by an un-German, corrupting spirit, who recommended to us a reconstruction and dispersal of universities

into special schools'. It was at this time that it was decided that the highest degree in both the arts and the sciences should be the doctor of philosophy – the general title expressing the unity of the faculty of knowledge.

It was also at this time that it became accepted that only graduates from such universities would occupy the higher echelons of the civil service. In other words, a particular link was intentionally created between knowledge and politics through the idea that a bureaucrat who arrived at a top civil-service position should act in accordance with *Bildung*; that is, having entered the sanctuary of academic knowledge through a holistic process of self-cultivation, self-discipline, and skills acquisition and being dedicated to ongoing philosophical development and growth. This idea of how knowledge and the authority of office merge has shaped much of the current debate about the relationship between higher education knowledge and organisational leadership.²

The idealist university tradition has been modified but, so far, not fully undermined. The 'innovation' paradigm discussed below is perhaps the final attack on this historical tradition. It represents a fundamental shift in European culture, which has so far been marked by a belief in the value of independent knowledge as truth telling. In particular, Schleiermacher, and building on his ideas, Humboldt, created a productive link between idealism and positivism, thus producing knowledge which is neither transcendental, nor positivist/empiricist, nor split between the two (as, it is often argued, is the case in other cultures such as those in India or China). Today however, the innovation paradigm seems to be reducing this particular European knowledge culture to a kind of empirical positivism that excludes the humanities.

In Europe we are used to arguing, within the sociology of science, that knowledge is part idealism and part positivism, but reducible to neither. It is theoretical and empirical at the same time. Thus, more than other cultures, Europeans have made idealism (both the rational and romantic) and positivism (both logical and empirical) constantly confront one another in a productive although often conflictual manner (Münch 1982). This has given us an ability to ask, not only what to innovate and change, but also *why* change is necessary, and what the meaning is behind it all.

Within the universities, this means that the different faculties must speak to each other; we have to be able to question general societal development under capitalism (Habermas 1968). The focus on innovation, however, has the potential to reduce Europe's cultural heritage to a one-sided affair, leaving us with a theory of knowledge that supports the empirical positivism needed to promote innovation, but very little else. Many no longer question why this or that capitalist development is taking place, but are interested only in how.

From universities to specialised functional schools?

The university as an organisation of departments, that specialise in research but also integrate with other disciplines and faculties, is to be transformed into a specialised organisation for certain societal functions and actors. The so-called *differentiation* policy, and the supposed urgency for universities to find a niche in the knowledge market follows from the innovation paradigm. In other words, universities are being asked to contribute to the differentiation of the sector both *horizontally* and *vertically*, as if they were competitive organisations in a market for and about knowledge.

The shift in focus from educating a 'whole person' (*Bildung*) to innovation has, in Germany, led to universities adopting this differentiation policy, and thereby breaking with the core values of their own and most of Europe's university history. In his much debated book, *Die akademische Elite*, Richard Münch (2007) describes how the so-called excellence initiative has undermined the academy's ability to renew knowledge on a broad basis due to the kinds of differentiation policies that guide the selection of elite universities and research programmes.

This undermining of the links between research and teaching, so as to make research more receptive to demands from actors in society, confronts the basic idea of the Humboldtian university head on. As noted, Humboldt's basic idea was that the universities should keep the faculties together, and engaged in constant interaction, for the sake of '*Bildung*'. The development of the person through research was seen as more important than the development of the 'products' of research. The innovation paradigm reverses this focus. The humanities, in particular, are threatened by this shift. The role of the humanities (and now sociology and the other social sciences) is not only to educate its own candidates, but to give meaning to the world and society as it is transformed through science.

As Münch shows, Germany's Excellence Initiative is an example of how elite universities, of some specialisation or other, are to be drawn out of the grey masses of the total population of universities. While the majority of these institutions remain bogged down by the massive growth in the student numbers, the elite universities will, instead, become allied with the elites of society, for whom the rhetoric of innovation has become almost like a secular religion. This differentiation is justified by 'knowledge arguments', but such 'arguments' have meaning only for politicians. Excellence is an empty category that gains substance through the political privileging of certain kinds of knowledge at the cost of others.³ Political tools that promote excellence are the same tools that promote differentiation *through* competition, socially constructed *through*

the practice of ratings, rankings and evaluations which are linked to particular rewards. But these tools do not promote the fair competition that the liberal ideology of the market once dreamed of. Rather they create a concentration of resources around big projects, big programmes and well-established research groups that already have a lot, but which, as Münch convincingly shows, also have low productivity and low creativity levels. When productivity is measured against the number of employees or resources utilised per research hour, universities other than the elite universities often prove superior. And when comparing faculties and disciplines, this is particularly the case for the humanities. While the tendency to create oligopolies and even monopolies (centres of excellence) for the sake of 'elite competition' (which so far has given priority to medicine, engineering and biotechnology – the kinds of sciences that apparently embody the values of innovation) the kind of productivity seen in the humanities is not recognised, as John Higgins (2010) shows so well in his contribution to the South African debate.

But the dramatic fall in creativity, linked to the undermining of the social sciences and humanities faculties, fails to excite the politicians. Germany's Excellence Initiative (and the now about 12 universities under its wing, also known as 'Elite unis') illustrates that the social sciences and the humanities are of little value to universities that wish to compete for the 'excellence' label. These disciplines and faculties carry little weight in the selection process that the politicians have created. Admittedly, it is difficult to measure their value, particularly when it comes to measuring their contribution to 'innovation'.

Germany is not unique. The hype around the notions of excellence and innovation is global. A global policy is being developed for the creation of hierarchies that can compete in different niches to supply specialised knowledge to different kinds of users. Germany may have driven this policy to the most extreme level, but most European countries have adopted a similar approach, in line with the EU's drive to transform Europe's university landscape according to the degree to which universities contribute to innovation.

It is not surprising, then, that one of the most important people shaping European higher education and research policies, Helga Nowotny, is a strong advocate of innovation. She seems to perceive it as the saviour of our time, and to envisage the social sciences and humanities as providing supply and support, driven by the needs of the 'hard science' disciplines mentioned above. In a paper published in *World Social Science Report* with the catchy title 'Out of science: Out of sync?' (Nowotny 2010), the emeritus professor and president of the European Research Council put forward these arguments. Innovation has a social side,

she argues, and the humanities and social sciences should see it as their duty to analyse this for the sake of understanding change as defined by innovation. An analysis of continuity, stability, cultural identities and circles of human experience through history seem to have less value for her and her colleagues.

The EU and rhetoric around innovation

Higher education and research have become burning issues for the EU despite the lack of any formal or legal basis for the promotion of policies linked to these two areas. The Bologna Process, despite including a number of countries outside the EU, has become a tool for the co-ordination of policies on higher education and led to the establishment of the European Higher Education Area (EHEA).

Research co-operation has a long history between European states and university researchers, and has been gradually drawn into the EU's policy sphere. The Lisbon Declaration of 2000 strongly linked university-based research and the need to reform the universities with the growth and innovation strategy. The declaration proposed that Europe should be the world's foremost knowledge economy, driven by innovation and the renewal of knowledge that innovation presupposes. For this purpose, universities needed new policies, but only after 2004 did the universities become responsible for these changes. It was at this point that neo-liberal policies were articulated particularly clearly (Mirowski and Plehwe 2009, Plehwe 2011).

After 2004, it became clear that the processes that drive innovation must also drive university reforms. In other words, for higher education institutions to be more useful for innovation, they need to be oriented towards the users of innovation, differentiated by competition and rewarded by results. By 2010, this policy had been articulated to perfection in the EU's growth strategy known as 'Europe 2020'. In terms of this strategy, research universities are characterised by how useful they make themselves in relation to innovation, and preferably by being organised as entrepreneurial universities. Thus a research university should, as the EU sees it, view itself as part of a global competitive environment, if it is to be supportive of the new programme for European economic growth. Furthermore, the EU's adoption of the OECD's knowledge-based economic policies is seen as compulsory, and the strengthening of co-operation with the OECD around the concept of the knowledge economy is highly recommended. Thus by 2010, if not before, universities had been shaped into tools for new ends, and primarily as a means for ensuring the growth of Europe as a regional economy and expanding its global influence.

For the Europe 2020 strategy to work, universities will have to reform.

Most are not yet good enough at contributing to the innovation process. All activities, from 'blue sky' to applied research need to be streamlined to fit this new purpose. To make this happen, both more management and more of a market is needed. As the OECD argues, only competition can overcome the inertia of the traditional and obsolete Humboldtian universities. Tradition, not functionality, prevents institutions from being useful for the innovation economy (OECD 2008). For OECD policy-makers, exposing the universities to 'the rhythm of the market' will provide the strategies for change, and managerialism can bring this about. The Europe 2020 policy document on innovation (EU 2010) has a tagline which reads: 'A strategy for smart, sustainable and inclusive growth'. In this document, the biggest challenge to the EU is defined as its ability to 'adopt a much more strategic approach to innovation', as an 'overarching policy objective' (EU 2010: 2). The fact that universities must transform to make this possible is taken as truism: only then can the necessary co-operation between the world of science and the world of business be enhanced, only then can obstacles such as old Humboldtian influences be removed, and incentives be put in place in accordance with the necessary ratings, rankings and evaluations. The consequences of this policy for the EU's financial and organisational tool, research policies and budget allocation (namely, Framework Programme 8) are already evident. While the humanities and social sciences were weakly supported in Framework Programme 7, which is the co-ordinating tool for EU research funding for 2007 to 2013,⁴ in Framework Programme 8 they seem set to survive only as support disciplines within programmes, and will not be supported as disciplines in themselves. An initiative from Freie Universität, Berlin, to mobilise against such a development may, as the somehow defensive arguments in their call for action indicated, be too late.⁵

Thus, strategy taken by Framework Programme 7, and the ongoing debate about the Framework Programme 8, promises growth for those disciplines that directly contribute to innovation in Europe, but few resources and no future for the disciplines that interpret the world differently from that proposed by the innovation paradigm. If this strategy continues to dominate university policy and funding, it goes without saying that the humanities and social sciences have a future only in so far as they support the knowledge needs defined by 'innovation', and that only those actors in society who are able to express their knowledge needs will decide whether and how the social sciences and humanities shall be allowed to contribute.

The marriage between the EU and the OECD

The shift in focus within academic institutions, from the time when the first university was founded in Bologna at end of the eleventh century, until public values were replaced with the pursuit of 'innovation', also represents a shift in levels of identification from the nation state to the region (EU) and latterly the globe (OECD). This transformation is primarily a transformation of the long-term relationship between knowledge, polity and economics. The relations between a state and an academic sector protected by the state that allowed scholars to express independent knowledge (more and more as a democratic right and duty), is, in the neo-liberal phase (post 1983), being dissolved and rendered suspect. How these relations will be reassembled at the global level, and how a new public space for the protection of academic freedom will emerge is a crucial issue in these times. This is the future to which all scholars in the social sciences and the humanities need to direct their attention. As I suggested at the outset, a defence of Humboldtian values beyond the nation state is required.

For now, however, the uniting idea of governance at a global level is still a rather monolithic fixation on innovation. The central idea of the knowledge economy, for which innovation is the engine, has been developed by the OECD since 1996, in response to the ongoing debate about the role of knowledge for economic development (see OECD 1996; 1998; 2004; 2005; 2006a; 2006b; 2008; and Santiago et al. 2008). According to these documents, a learning organisation learns less of value from experience than before, and more from its well-trained academics and their ability to link into and adapt knowledge linked to innovation. The shift from a learning society to an innovation economy has become the OECD's mantra. This new economy, where learning in a broad sense of the word is replaced with the notion of an innovation economy, also presupposes a national innovation system oriented towards the global competition between economic actors and competitive states.

This is also how the policy of university differentiation may be seen as a contribution of the state to the innovation paradigm: some universities may be elevated to international institutions promoting the interests of actors in the global economy, and the quality of the competitive state may be linked to their support for these actors. The role of OECD – as a membership organisation – in promoting this system has been to develop quantitative indicators for knowledge-based economies, and thus to guide the governance of such a development (a soft method of co-ordination). When states apply the OECD's tools to their higher education and research policies, the logic of differentiation and competition (that again promotes further differentiation) emerges systematically.

As in Germany, these indicators downgrade the social sciences and humanities, while upgrading other kinds of academic achievements and disciplines within a world of internationalised comparisons. The indicators are used to highlight best practice and to reveal deviations from best practice. Four main areas where indicators needed to be developed, according to the OECD's 1996 document, were: knowledge stocks and flows, knowledge rates of return, knowledge networks, and knowledge and learning. The last area holds a primary position as an indicator, but is understood as *human capital development* – that is, a new kind of capital that brings the highest social and personal/private returns. Soon 'knowledge and learning' was exchanged with 'innovation', and *Bildung*, the process of learning to behave in a communicative and public society vanished from the value system.

The integration of universities into the 'innovation economy' has been streamlined by the quantitative measurements developed since 1996 onwards. As argued, the key driver in the transformation from a qualitative to a quantitative understanding of knowledge, or from human development and nation-state identities to human capital and global capitalism, has been a moving target called 'best practice' (Martens and Weymann 2007), or more generally, the soft 'guidance' of activities driven by comparisons between 'competing units'. EU policies for both research and education are now driven by these so-called 'soft methods of co-ordination'. 'Best practice' transcends references to a social unit – or nation state – and is linked to economic units whose competitive advantage depends on their ability to mobilise resources in their near or far surroundings, and primarily their human-capital resources. Best practice thus also creates uniformity and convergence that only an entrepreneurial university dismissive of the humanities and social sciences can live up to.⁶

After a long decade, the OECD concluded in a two-volume report (Santiago et al. 2008) that its policy has been accepted, as far as the role and organisation of universities is concerned. The question now is implementation. How does OECD make local authorities adjust to the global regime of best practice? The answer seems to be via competition, as this can be promoted by delinking universities from their nation states and reassembling them as providers of human capital (as measured by OECD) to users who themselves are actors in and creators of the knowledge market.

First and foremost, the external pressures for reform are weak in tertiary education. Different from unsound macroeconomic policies which may quickly trigger capital outflow and force governments to greater

discipline, tertiary education does not face similar sanctions for failing to deliver services of the highest quality. The advent of the knowledge economy and acceleration of the pace of technological progress are now increasing the cost of inaction, *but the imperfect international competition in tertiary education* still hinders the long-term commitment of policy-makers to tertiary education improvements. (Santiago et al. Vol. 2: 327, emphasis added)

Conclusion

The basic idea of the humanities – that society is and can be shaped by new knowledge that evolves out of a research process – has little space in the reasoning underpinning the concept of knowledge for innovation. Similarly, the understanding that such knowledge is inter-subjective and that it is the duty and the privilege of the university to grow this inter-subjectivity through interfaculty interaction now has little traction. Achieving this, would require universities to keep their independence and distance from specific societal interests and to constantly expand their interactions with society in general.

The ideology of innovation and the knowledge economy works to counter this. The links between faculties are broken down by a differentiation according to competitive criteria. The paradox is that this leads to less creativity and a general loss of knowledge within academic culture as a whole. In the end, it leads to less knowledge and less innovation. Generally it has proven difficult to plan knowledge development for innovation (Weingart 2010). Had universities been allowed to develop more broadly, and with academic ‘honour’ (the acceptance of best among equals) as a ‘competitive’ criterion, more knowledge would be available to society, and more creativity would be at our disposal.

When some universities have to specialise and occupy specific niches, and others monopolise a disproportionate amount of resources in order to develop as elite universities, the resulting concentration and specialisation of knowledge undermines society’s general knowledge base. The consequences of this are dramatic, primarily for the humanities, but also for some (if not all) of the social sciences. The transformation of the nation state escalates this process. The development of nation states shaped the humanities in their own image and vice versa. No such shaping is evident in the processes of regionalisation and globalisation – apart from the debates that university researchers themselves generate about these issues, that is.

As the ideology of innovation penetrates research councils and regional research funding organisations, such as the EU framework programmes, it is

no wonder that the defenders of the humanities and the social sciences are found among academics themselves. As the Berlin initiative indicates, and SANORD is another important example of this, a broad mobilisation of a global magnitude is necessary. Many of Humboldt's values must, in my view, be writ large in such a mobilisation – a modernised Humboldt, of course, one befitting a time of democratisation. This is where the debate among academics should focus in the future, as an alternative to the idea that the role of the social sciences and the humanities is to support the 'innovation' process.

Knowledge in the social sciences and humanities is mediated by language, and its meanings shape our identities and our social relations. If these disciplines are to have an independent future in line with their past, they need to regain their old scholarly independence, to demonstrate the value of the knowledge that emanates from universities as a contribution to society, whether or not it is useful to certain users, and as necessary to public debates underpinning democracy, identity and culture. Of course, this means stepping beyond the innovation paradigm and entering the broader debate about the future of democracy. Democracy, today, is part of the nation state and the world is moving towards regionalisation and globalisation. Thus the future of the social sciences and humanities is both to save (and improve) the democracies we have and to raise the debate about regional and global democracy. What kinds of identities and institutions can promote the communicative and inter-subjective stability of nation-state democracies, while enhancing the development of democracy on a regional and global level?

Notes

- 1 At the time of writing, John Higgins was the Andrew W Mellon Research Professor of Archives and Public Culture at the University of Cape Town. His views appeared in *Business Day*, 28 December 2010, p. 5 under the headline, 'Narrow focus on science and technology leaves South Africa poorer'.
- 2 Clark (2006: 444) refers to Fichte's *Deduzierter Plan einer zu Berlin zu erreichenden höhern Lebranstalt* (1807), in which he outlined his idea that the academic life was to be one's 'home', absorbing the whole person, an end in itself. Fichte set academic life against the utilitarian, commercial demands of civil society and civil service. An instructor must be an autonomous artist (*Freier Künstler*). Clark argues that Schleiermacher's *Gelegentliche Gedanken über Universitäten in deutschen Sinn* (1808) marvellously reflects the Romantic notion of research. Schleiermacher spoke of the necessary inner unity of learning, and strongly emphasised the artistic – almost to the detriment of *Wissenschaft* (science) – although he also argued that a university should teach both the sciences and self-development (*Bildung*), even in the specialised disciplines.

- 3 Jürgen Kaube (2009) has edited a book with the title *Die Illusion der Exzellenz. Lebenslügen der Wissenschaftspolitik* in which a number of prominent German scholars outline the irrationalities of this policy and the destructive effects it has for the 'knowledge society' as a whole.
- 4 In Framework Programme 7, *less than 2 per cent* (€0.6 billion) of the budget was allocated to the humanities and the social sciences while €9.1 billion was allocated for ICT.
- 5 In a paper called 'European Funding for Social Science and Humanities Research beyond 2014', academics at the Freie Universität in Berlin argue that: researchers in the humanities and social sciences engage already in *multiple collaborations* with public authorities and policy-makers, international organisations, think tanks, media, NGOs, churches, business and employee's organisations, companies, museums, citizen fora, etc. They note that researchers (and the collaborative groups they work with) fulfil *different tasks in society*. Researchers are more independent and offer a differentiated analysis. They are able to take a medium-term view and look beyond current situations. They note that *all other spheres use research as a basis for their own contributions*. Without social science research, there is a risk that contributions of other spheres of society will become superficial. They note further that politics is complicated and contested by various actors. Researchers cannot give simple answers, but can highlight sound criteria according to which decisions should be taken and clarify the likely consequences of particular policies. *They enable policy-makers to make decisions based on scientific evidence*.
- 6 The entrepreneurial university cannot be fully discussed here, although its organisational model fits the innovation ideology most precisely. Its development is however seen as an expression of a revolutionary shift (of same magnitude as when research became as guiding force in 1810 (see Etzkowitz 2004 and in numerous other articles). This kind of university is well described in Kor Grit's (1997) analysis of the University of Twente's transformation into an 'entrepreneurial university'. In fact, the University of Twente has become prototypical in influencing the EU's ideas of university reform. The six 'ideal typical' traits to which the Twente university tried to adjust and promote as 'entrepreneurial' were: (i) productivity as a norm, (ii) a market orientation, (iii) an entrepreneurial attitude, (iv) management through quantification and quantification as surveillance, (v) linked to the previous point, steering at a distance, and (vi) managerialism. Grit rightly asks if this university is a child of the European Enlightenment. While a return to German idealism is not possible, in many debates the 'entrepreneurial university' (or the German elite university) is seen as having reformed Humboldtian university values.

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