ADRIE DASSEN AND PAUL BENNEWORTH

8. UNDERSTANDING THE LIMITS TO HIGHER EDUCATION POLICY NETWORKS

8.1 INTRODUCTION

One of the characteristics of the university reform in the last quarter century has been an increasing marketisation of higher education. In response to fears that universities represent classic dominant producers, governments have sought to stimulate efficiency and innovation in the higher education sector with a mix of increasing autonomy and competition for funding. The concept on which this lies is that stimulating competition drives out inefficiency by underperforming institutions. The most successful universities can recruit more students and win more research projects, allowing them to thrive. Conversely, less successful institutions will see their funding drop. They will either have to improve service levels or witness their gradual disappearance. Whilst the empirical value of the efficiency of higher education markets remains to be proven, marketisation is an undeniable landmark of the contemporary policy field.

The rise of marketisation is part of a broader transformation in late capitalist societies. The role of government has shifted from delivering public services in accordance with the wishes of their voters to stimulating other providers to provide innovative services, thereby reducing the burden on taxpayers and bringing solutions to increasingly intractable societal problems. The market principle and competition between service providers are now unavoidable facets of public life. Formerly stable and staid institutions and services such as hospitals, public housing, and railways are forced to define their goals, missions, clients, business models and revenue streams. But unlike genuine market provision, the persistence of quasi-monopolies around many of these services has seen the rise of increasingly complex bureaucratic structures to regulate and enforce competition and contracting between the State and providers.

This immediately places governments in a dilemma, particularly when considering complex services and problems where the desirable goals and outcomes may not easily be specified. Clearly, if governments were to set targets for producers, this would incite them to focus on hitting their targets, i.e. so-called compliance behaviour. One solution would be for governments to consult with producers and try to tap into their collective wisdom about what may be appropriate policy aims and regulations. But this raises two problems for governments, firstly individual actors in these quasi-markets may be so competitive that they would be incapable of working together to articulate a common public interest. Alternatively, individual producers may come together to force governments to accept regulatory situations

J. Enders et al. (eds.), Reform of Higher Education in Europe, 123–141.

which are not in the public interest, although creating benefits for the private participants.

There has therefore been increasing interest in policy circles in how governments can bring actors in quasi-markets together to develop shared solutions to problems and information for effective regulation without allowing the formation of producer groupings with excessive market power. The solution which is emerging in the literature is the idea of the policy network, something in which states can steer groups of competing actors to produce collective solutions which avoid this risk – or indeed possibility – of collusion. A policy network involves a group of actors brought together by a lead policy actor, such as a ministry, who are collectively given the power to develop their own rules within parameters specified by that lead policy actor. The idea underpinning interaction within the policy network drives out opportunistic actors whose contributions are not valued or respected by other participants, because opportunistic actors are not able to mobilise substantial supporter coalitions in favour of their policies.

Certainly, looking at the characteristics of national higher education (HE) systems, these are prone to collusive activity between universities to avoid and subvert regulation and the introduction of market disciplines. This would make them an ideal domain for the introduction of policy networks as a means of gathering the collective wisdom of the sector to identify the necessary autonomies and corresponding regulatory mechanisms to better place these institutions at the service of their host societies. The topic of this chapter is therefore understanding the relatively limited uptake of policy networks within national higher education policy streams as a mechanism to allow governments to steer universities, despite the relatively extensive introduction of the market mechanism in higher education. The chapter considers how policy networks in the so-called 'third mission' of universities (*see* Zomer & Benneworth, this volume) stimulate the development of better forms of policy, encouraging better interaction by universities.

We seek to understand three things:

- how the idea of the policy network has been applied to higher education,
- the extent to which the idea of policy networks is of use in making sense of new forms of governance in higher education policy, and
- the implications that this might have for the development of more effective forms of higher education policy, providing better steering and driving efficiency.

8.2 COLLUSION, SOCIAL CAPITAL, & PRINCIPAL-AGENTS: THE RISE OF THE POLICY NETWORK

Understanding the rising interest in policy networks can be seen in terms of the increasing complexity of societal problems and a greater understanding of how knowledge is dealt with as a product by actors. There have been two parallel trends which have converged, creating a situation in which policy networks have increasingly become regarded as an optimal solution. The first is the increasing complexity and rising costs of societal problems (Ackoff, 1999). At the same time, there has been strong pressure on governments to control their spending. This has occurred both internally through pressure from electorates for tax cuts and through multi-lateral

organisations such as the IMF, ECB and OECD, as well as global capital markets. At the same time, there has been growing recognition that governments do not have the expertise to deliver services that can meet the increasingly complex array of societal problems, and do not necessarily have the understanding to identify and commission solutions to those problems.

Governments have therefore sought to move away from solving these problems themselves to spending public funds on providers who offer to solve these problems most cheaply. But although they have a mandate to produce the best services for their citizens, this idea of delivery through providers introduces a new tension, in that it introduces a dependency between the government and the providers. Providers' main duties may be to provide maximum profits to shareholders and they therefore may behave in ways that raise costs rather than improve quality of services. The challenge for governments is to align the interests of the service providers with those of the government, without losing the incentive of market competition to drive service quality.

This is a specific case of a more general problem arising in economics, that of principal- agents (*see* Eisenhardt, 1989 for a review). The issue is that governments cannot easily judge what it is reasonable for providers to do in terms of quality or price without detailed knowledge of those providers and their organisational processes. Just as governments lack the knowledge to solve problems for themselves, they lack the knowledge to judge whether a particular proposal is value for money or not. At the same time, providers do not want to share that knowledge with governments because this allows them to discipline and regulate those providers.

This is the principal-agent problem—the principal is dependent on the agent to deliver a service; the agent can resist scrutiny of its internal behaviour by refusing to deliver the service if overly scrutinised. The phenomenon of regulatory capture is relatively well-understood; regulators become aware that they can only place so many demands on providers and therefore rather than be in a situation of perpetual conflict with zero service delivery, they resign themselves to the fact that they can never force providers to reveal sufficient information about themselves to regulate them efficiently, because the information required is ongoing, would be extremely costly to both parties to produce and would therefore impose huge costs which would ultimately have to be borne by the customer or taxpayer.

At the core of the problem in a regulatory arrangement is the fact that there is a clear misalignment of interests between government and providers. In imposing a profit motive through quasi-markets, governments make it possible for previously public services to want to behave opportunistically, to raise profits without cutting prices or raising quality. This happens in two ways; first, marketisation has in many cases involved giving these formerly public institutions the 'freedom to compete', allowing them to make a profit or to fail. The other side of this reform is imposing the market mechanism which is to reward profitable behaviour, and this penalises those institutions which transparently provide performance information to government, because it removes the possibility of rent-seeking whilst other providers may be able to do so. If institutions are given freedom to behave as they choose and strong incentives to maximise their profits, there are much weaker incentives for them

to produce in the public interest. The risk of regulating these activities is weakening the market incentives to raise quality rather than sharpening competition. Therefore there is the risk that marketisation will end up with the worst of both worlds, providers that pursue their private interest at a higher price than they would have done before privatisation.

The solution has been seen as providing the appropriate incentives for providers to agree collectively, whilst remaining in competition between the most efficient and most appropriate forms of delivery. Governments have created policy networks whose tasks are to identify reasonable outcomes and the appropriate rules of the game, targets and market mechanisms. Opportunistic behaviour is avoided because these are community networks – there is no way of achieving private interests without engaging at some level with a shared public interest. These policy networks drive the efficiency of decisions by removing the incentives for collusion or opportunism by using network partners as a way of controlling the activities of others. Actors who behave opportunistically are replaced by more trustworthy actors and the collective decision arrives at the time of the greatest public interest, providing information to governments that allows regulation of providers but also the retention of the market incentives to stimulate innovation by the providers.

In the preceding example, it is important to stress that this is not purely about the setting of prices for services, but about the agreement of an appropriate regulatory framework between providers and the State. Policy networks help to provide information to regulators to better set the rules of the game and create appropriate incentive frameworks for providers. They can then be regarded as a kind of 'smart marketisation', in which both the power of markets and social capital produce socially optimal outcomes. Of course, we should be sceptical of claims that new approaches represent panaceas. The simplicity of the processes underlying the model creates a demand to better understand the complexity behind the reality of decision-making. The principal agent problem has recurred in the last three decades of public policy, in both older and newer approaches to public management. This suggests that it may be rather more intractable than yielding to the solution of policy networks.

To explore the question of the complexity of policy networks and their functioning, we analyse their introduction in a single sector characterised by complexity, namely Higher Education (Baumunt, 1997). It is important before we do this to make a critical distinction between the theory underpinning the concept of policy networks and the ways that particular policy networks have been implemented. Part of our argument is that they have emerged as a policy solution based on a simplistic and reductive understanding of network understandings of governance and decision-making. In order to highlight this reduction, it is necessary to better understand how theories of policy networks have emerged in the literature and explore their application in the field of higher education.

8.3 AN OVERVIEW OF POLICY NETWORKS AS A TOOL

We think it is useful at this point to make a distinction between two phenomena. The first is the fact – as identified above – that governments are encountering

problems in co-ordinating public policy solutions to increasingly complex societal problems. As part of this, governments have sought new co-ordinating and steering mechanisms that avoid the problems and over-complications of hierarchical policy making. The second is the concepts of policy networks which have evolved in the literature, and in particular, the fairly detailed critiques of policy network theories which have emerged. Our argument is that, although the policy network is a useful idea to understand decision-making in complex environments, the way that it has been executed is extremely reductionist. A more nuanced understanding of how the key processes of governance networks function is required. The nub of the critique that emerges from the literature is that, whilst in some circumstances policy networks can be used to create a narrative of how certain decisions have emerged, it is never possible to say that that solution would not have been found under more hierarchical approaches to decision-making.

It is important not to overstress the value and in particular, the explicative power of policy networks, which whilst functioning as an interesting heuristic for governance reform, have frequently been found wanting when empirics are analysed via the theory. We also emphasise that the term 'policy network' has been used over time in different ways with different underlying concepts, theories and variables. Conceptually, policy networks have received increasing attention since the 1970s. However, the efforts of the past 25 years have not resulted in a unified theory and we would distinguish four distinct schools which talk about what are policy networks.

The American and British literature takes the intermediation of the interests of a variety of societal stakeholders as its point of departure and attributes a consulting role to policy networks. This body of literature related the effectiveness and efficiency of policy networks along different dimensions (Heclo, 1978; Marsh & Rhodes, 1992). It differentiates between types of networks and uses the policy network concept mainly as a heuristic device. The second literature, regarding governance, views policy networks as an instrument, a new mode of governance that goes beyond a platform of interest intermediation (Scharpf, 1994; Mayntz, 1997a). This school of thought goes beyond the metaphorical use of the policy network concept. The network management literature is mainly focused on the management of interactions and the institutional design of the instrument. underlines the ever changing nature of networks, due to the interactions, but also to the steering and shaping of the network by those that aim to employ it as a policy instrument (Kickert, Klijn et al., 1997; Koppenjan & Klijn, 2004a). Finally, social network analysis literature emphasises the structural differences between and within networks and effects on potential policy outcomes (Provan & Kenis, 2007).

The points of departure differ considerably between these approaches, thereby creating a 'Babel' (Börzel, 1998) of concepts, theories, and metaphors. Policy networks are associated with steering, but the question of who steers and who is steered, and the extent of such steering remain as yet unanswered. Explanations of outcomes, in whatever form, and their relationship to the institutional design and interactions in a network are only based on ex post analyses, and clear relationships between form and function have as of yet not been seen in the empirical work. The causal relationships between the characteristics of a policy network and the

effectiveness, efficiency, or legitimacy of its outcomes remains largely unknown. A general theory of steering in and steering by policy networks that can predict outcomes *ex ante*, despite many efforts, does not exist.

The efforts on identifying various types of policy networks in past years can be explained by the empirically relevant question of good governance. What is a good policy network and which type of policies would support its development are questions that are at the core of the policy network debate. However, if we take a look at the empirical literature it appears that the conceptual ambiguity surrounding policy networks hinders the ready identification of a policy network. There seems to be some conceptual difficulties in its definition and identification within and across, as well as at different levels.

On this basis, what can be theoretically claimed regarding policy networks is the following. They may have value in particular circumstances, but not enough is yet known to say anything meaningful about what these might be. Certainly, this is not a one-size-fits-all to solve problems of co-ordination in public service areas at risk from producer collusion. What can be asked is what is the value of policy networks in the steering at a distance of higher education, a question to which we will now turn.

8.4 PRINCIPAL-AGENT RELATIONSHIPS AND THE REFORM OF HIGHER EDUCATION

Universities have gone through deep changes in the last 25 years as governments, encouraged by multilateral organisations such as OECD, have fundamentally changed the way that they are organised and funded and the way they are held accountable by their external stakeholders (OECD, 2008; CHEPS et al., 2010). The nature of these changes is neatly summarised by OECD, which argues that they have ultimately been about increasing oversight over the sector whilst providing the freedom to contribute to these multiple missions.

> In the governance of tertiary education, the ultimate objective of educational authorities as the guardians of public interest is to ensure that public resources are efficiently spent by [universities] to societal purposes. There is the expectation that institutions are to contribute to the economic and social goals of countries. This is a mixture of many demands, such as: quality of teaching and learning defined in new ways including greater relevance to learner and labour market needs; research and development feeding into business and community development; contributing to internationalisation and international competitiveness. (OECD, 2008, p. 13).

In this section, we argue that higher education reform has created environments where there are strong incentives for universities to behave opportunistically and where there is a strong interdependency with the State on universities for the delivery of a range of policies. In short, they are classic environments where principal-agent problems may be expected, thus making them a good laboratory to study the application of policy networks.

The issue of university governance emerged in the post-war period following the first wave of higher education expansion to meet the burgeoning need for a highly educated workforce as managers and engineers for the mass-production economy (Neave & Van Vught, 1991). The elite higher education system had been one in which governments had tended to have a laissez faire attitude, or provide funds without placing many strings on the universities (Longden, 2001; Scott, 2007). As governments increased funding for HE, there followed increased pressures and regulations placing duties on universities to be more closely aligned with the delivery of societal goals and latterly government policies (Barnett, 2000), the so-called publicisation of the sector (Deitrick & Sorka, 2005) One problem, highlighted by Maassen (1996), was that, as more issues emerged for governments, they responded through additional regulations for universities. Universities as a consequence paid less attention to their outside environments and became focused on meeting the needs of the government as their sole stakeholder, neglecting the societal beneficiaries that government desired universities to serve.

The challenge was identified that governments wanted universities to pay attention to an increasing number and an increasingly diverse group of stakeholders (Jongbloed et al., 2007). The solution was to increase the autonomy of universities to choose their own solutions and identify which stakeholders' needs they wished to serve. To ensue efficiency in this approach, universities were to be subjected to a new form of single regulation, where in return for more simple funding streams and this greater autonomy, they would work towards clear targets (De Boer, 2002).

This first phase of change was clearly a version of marketisation, which sought to give universities freedom in return for rewarding performance. Of course, it is easy to set targets for some kinds of activity and stakeholders, such as for students, offering targets for recruitment, retention, completion and satisfaction. Indeed in a number of countries such as the UK and The Netherlands, this forms a key part of the governance system. But the issue remained that under these arrangements, universities remained focused on meeting the goals of their regulators rather than on addressing the needs of their stakeholders, except where those needs were measured by regulators as part of the regulatory approach (e.g. in the UK through the national Student Survey). Therefore, the system functioned in such a way that if a particular stakeholder was to be regarded as important, then it was necessary for governments to decide that it was important and develop a regulatory framework and target set for universities. But as the university sector retained the knowledge about the mechanisms and structures for those activities, this places the regulator at a great disadvantage with respect to the universities, raising once more the problems of collusion and regulatory capture outlined above.

Given that 'markets' in higher education can better be understood as systems connected through resource dependencies and causal chains, encouraging universities to act as independent market-following actors can create systematic deviations which lead to service offers which, whilst individually optimal for the providers, are clearly sub-optimal. In the UK, a Parliamentary Committee of Inquiry concluded that a number of highly undesirable closures of strategically-important science departments were the result of market working and institutional autonomy (S&TC, 2005).

The risk of regulation for HE was the risk that it would stifle evolution in the sector by conditioning HEIs to follow government targets rather than take risks or experiment in areas not immediately specified by government. In their chapter in this volume, Zomer & Benneworth recount at more length in their chapter the rise of the third 'engagement' mission for HEIs, but we limit ourselves here to arguing that the rise of the third mission is an interesting example of governments struggling to regulate higher education to adopt a new uncertain mission. Governments have sought to encourage universities to engage with new kinds of stakeholders in processes that are not necessarily well-understood and where system-learning is vital. It is therefore not surprising that policy networks have been adopted as an attempt to incentivise this experimentation around the third mission.

8.5 THE PRACTICE OF HE POLICY NETWORKS FOR THE 'THIRD MISSION'

The idea of policy networks has arguably formed a *leitmotif* for European higher education reform processes. It is necessary to be clear that, in many areas, Europe does not have formal policy competencies. In such circumstances, and in other areas such as territorial planning, bottom-up co-ordination has been the order of the day. In one key area of 'European' higher education policy, the Bologna process has operated by acquiring support from individual member states, eventually acquiring its own multilateral power in the Follow up Group. We are not directly concerned with the use of policy networks in these kinds of circumstances, but only where the European Commission does have formal competencies, and where policy networks have become part of an attempt to deal with the complexity of the European institutional landscape.

These attempts have not always been straightforward. Research policy, for example, has continually oscillated between formal policy network approaches, for example by creating industrial consortia, and by open calls without any attempted co-ordination. In the 6th Framework Programme, emphasis was laid on networks of excellence, but in FPVII, these were abandoned because they had not necessarily delivered what had been hoped for and perhaps promised. But research is a core higher education task where the sense of what counts as excellence and co-operation which need promoting is quite clear. At the same time, the issue of regulating the third mission through networks has certainly proven more complicated. What we seek to do is to make two distinct points about the way that policy networks in higher education have emerged, in relation to the notions of reductionism and simplicity previously outlined.

First, we find a lasting collaboration between various sectoral and cross-sectoral actors who shape the higher education landscape, both at the national and European level. But we also see an upsurge in the number of networks at a rather different level. Increasingly, academic practice networks emerge where academics form international consortia to be eligible for funding. This may be at least partially attributed to reforms across Europe such as Framework programmes or European Science Foundation grants. Somewhere in between these academic practice networks and the sectoral policy networks there are also temporary issue networks which address

short-term issues and lead to new institutions, institutional reforms, or expire. At the same time, all these networks share actors, resources, and other characteristics, thereby blurring network boundaries, making the identification of 'the HE policy network' difficult.

But it is not just a question of policy networks manifesting at different yet unconnected governance levels. A second important empirical observation is that there are substantial differences within networks because of the complexity of the European environment. Although a range of interest groups has mobilised into co-operation bodies, they do not necessarily occupy common spaces. HE bodies range from quasi representative organisations such as the European University Association, through thematic bodies such as the League of European Research Universities, to more serendipitous groupings such as Coimbra and IDEA. At the same time, research and consultancy bodies influence the landscape both through their research and their work for specific client groups. The idea of a European HE policy space is complex and if it can be considered as a network, then that network is extremely dynamic and transient. In such circumstances, generalising at the network level may not be the best strategy when looking for a good network. The question of what constitutes a good policy network and what is the best way to support it is therefore much more complicated than one might first expect.

In this section, we consider one particular kind of policy network which has emerged in the last decade as a popular solution to the intractable problem of stimulating innovation in universities. There is a clear situation of sub-optimal equilibrium; both universities and firms in Europe are not investing sufficiently in knowledge transfer in the pursuit of innovation with as a consequence a failure to commercialise university knowledge creation and contribute to raising Europe's competitiveness. They therefore seem ripe for the application of 'marketisation-plus' or policy network solutions to this long-term issue. We take as an example innovation platforms, which have emerged as a policy network solution where governments have made substantial funds available for those policy networks which are able to improve valorisation. In short, this has seen platforms as policy networks which identify common actions and provide co-ordination of individuals harnessing their creativity to improve the public value of research. This provides a useful lens to understand the complexity of policy networks, and progress beyond simplistic and reductionist versions which we contend have adversely affected the way that the concept has been applied.

8.6 INNOVATION PLATFORMS AS A BOLD EXPERIMENT IN POLICY NETWORKS

The idea of the 'Innovation Platform' emerged in the European policy-makers agenda as a means of steering research in higher education because of the so-called 'European paradox'. The European paradox has long puzzled scholars and policy-makers alike, because of the relatively high levels of European expenditure on R&D and the relatively tenuous link that this has had to productivity growth (European Commission, 2005). One explanation can be found in a failure of co-ordination between firms and universities to work together on areas of common interest. The Framework Programmes for research have encouraged co-operation around

research, but have been directed in such a manner as to offer very limited incentives for collective innovation and knowledge valorisation. Networks of researchers have been created on an international scale, but there has been no corresponding measure to overcome the problems which arise in co-operating to innovate across European borders. This co-operation for innovation suffers from the same barriers and critical mass problems as the research activities to which the Framework programmes have been a solution, but without compensating policy support.

This perennial failure created a sense that top down action from the Commission could not create the right regulatory frameworks to incite innovation. This suggests that the complexity of the challenge creates a need to enrol producers, creating propitious conditions for the creation of policy networks to promote research exploitation and knowledge transfer. There has been a shift towards the use of innovation platforms as part of the reform of the European Research Policy that has also seen the creation of the European Institute of Technology and Europe INNOVA as central points for the promotion of innovation (CEC, 2006a). In these innovation platforms, governments set high level rules and make funding available dependent on successful outcomes, shaping the high-level environment within which sub-groups of actors attempt to come up with solutions that best deliver those socially-useful outcomes without producing market failures.

When talking about innovation platforms, an idea that barely existed at the turn of this century now occupies a significant place in the policy imagination (Consoli & Pattrucco, 2008). It could thus be argued that innovation platforms demonstrate the value of the policy network approach in stimulating university valorisation. But at the same time, they are a very specific form of network, which develops innovation instruments supporting new product development between firms, research centres and universities, following thematic lines broadly agreed by the network as a whole.

> The rationale of innovation platforms is to maximize the variety of contributions stemming from a variegated knowledge base while maintaining coherence though a minimum level of hierarchy ... Each unit exists independently according to own goals and capacity but, at the same time, responds to a collective goal through shared communication rules … the extent of contribution by each additional unit depends endogenously on the relative value of internal competences measured against the collective goal. (Consoli & Patrucco, 2008, p. 702).

In this chapter, we present these European Innovation Platforms within ERA as a case study of attempts to address this European Innovation Paradox. But what emerges from the study is not a sense of decision-making in networks where principal agent problems are avoided. Rather, there is a more traditional and hierarchical model of where governments have seen the innovation platform idea succeed and imposed it as a model. At the same time, governments have done that because a single country experimented and succeeded in its own proto-innovation platforms. The Knowledge and Innovation Communities (the policy which eventually emerged as part of the Europa INNOVA agenda), emerged, not as straightforward innovation platforms, but rather through a multi-scale process of policy-transfer, experimentation,

evaluation and exploitation. Therefore, the message of the chapter – given that theory cannot predict *ex ante* which policy networks will be most successful – is that the social life of the policy idea is important to understand how policy networks function in higher education.

8.7 THE CASE STUDY: FROM THE FINNISH INNOVATION PLATFORM TO THE EUROPEAN KICS

The purpose behind the European Knowledge and Innovation Communities (KICs) is to create a European scale of valorisation and to parallel the European scale of education and research created by the Bologna Process and the Framework Programmes respectively (*q.v.*). There are currently three KICs, focused on stimulating innovation around three societal problems, renewable energy, nanotechnology and sustainable transport. However, the preceding narrative creates the impression that the KICs have emerged from a rational top-down process which has sought to construct a European scale for valorisation.

An alternative analysis of the emergence of the idea can be that it came out of a sequence of successes and political motivations which ran up against an opportunistic need for something that could create this valorisation space. Rather than being a synoptic choice of the optimum policy approach, KICs have emerged as the preferred option because of a series of political conjunctions. This is not to say that they are not useful, but rather that the 'idea' of innovation platforms has evolved with the reality of the process of a series of implementations, and the agenda for collaboration has been shaped by successes. This highlights the issue of complex intentionality in the regulation of policy networks, and the KIC example suggests that the policy network was successful because it had been successful in smaller scale (national) contexts.

8.7.1 Bottom-up: From the Finnish Innovation Platform to the Scheveningen Conference in 2007

8.7.1.1 Finland's Home Grown Innovation Platforms

The rise of the KICs can be traced to the fall of the Soviet Union in 1991. The collapse of the Soviet Union and its support for the COMECON economic system, the collapse of the Warsaw Pact, the freedom of the Eastern Bloc States and the emergence of the Commonwealth of Independent States were accompanied by a period of restructuring across all these economies. This was sometimes characterised as a 'J-curve', in which output dipped rapidly by up to 60%, then began a slow process of recovery, in many countries taking over a decade to recover to its 1991 levels.

But the implosion of the Eastern European economy was not only a problem for countries formerly under Soviet hegemony, but also for the Soviet Union's largest trading partners. Particularly hard hit was Finland, which for both geographical and historical reasons had very close trading links with Russia which continued into the Soviet era. In the late 1980s, Finland substantially deregulated and reformed its economy, particularly the financial sector, which made it more sensitive to economic

shifts. Hence, the collapse of the USSR precipitated an economic crisis in Finland. GDP fell by 40% and unemployment rose to around 20%, calling into question the traditional Finnish approach to industrial policy, and stimulating a turn towards innovation (Romainen, 2001).

In the 1980s, Finland had begun the transition from an industrial to a knowledge-based economy, with a number of regions establishing science parks (e.g. Tampere, Oulu), and the creation of the now-renowned TEKES, providing funding for applied research and encouraging universities to co-operate with industry (Romainen, 2001). In common with other Nordic countries, Finland pioneered the use of the National Innovation System approach to try and improve economic performance. This introduced the idea of a sectoral approach, identifying all the key actors within a particular innovation system, e.g. forestry or metal processing, and working together to develop a collective action plan for that sector. However, prior to the economic crisis, there was neither the collective political will nor the financial resources to take this sectorally-based cluster policy seriously.

The Finnish response to the crisis was to accelerate this shift away from supporting industries to stimulating innovation, increasing the amount of resources devoted to innovation, but also encouraging new, more collective approaches to innovation promotion. In 1996, the Government set a target for Gross Investment in R&D to reach 2.9% of Finnish GDP by 1999, to ensure the continuation of that transition (Romainen, 2001); by 2004, that figure had risen to 3.5%, making Finland in terms of its innovation expenditures one of the most innovative countries in Europe. The other element was that the decision was taken to support 'inter-Ministerial cluster programmes' for a number of key clusters, both in forestry and metal processing, but also in the emerging sectors of ICT, telecommunications, bio-medical and energy. These cluster programmes were groups of all stakeholders in the sector who would come together and identify necessary projects to improve the sector's collective competitiveness and innovative performance.

It is at this point that two features of Finland's performance brought it to the attention of the European Union. The first was that Finland underwent an economic miracle in the latter half of the 1990s that saw it propelled to the top ten of world competitiveness rankings. This was driven in part by the success of leading Finnish firms, and notably Nokia, which benefited from the high-technology boom, and diversified sufficiently to avoid the hangover of the burst which afflicted Sweden and Ericsson. Nokia had been a key player in the inter-Ministerial ICT cluster programme and was willing to grant the government some of the credit for helping to secure its competitive position. The second was the Lisbon Agenda announced in 2000, which sought to position Europe as the most innovative and dynamic global economy by 2010 and set the target of raising Europe's GERD in GDP to 3.5% by that time, something which clearly took its lead from Finland.

8.7.1.2 From Inter-Ministerial Clusters to Innovation Platforms

These two events had the effect of casting Finland as the poster-boy of the European knowledge economy; indeed, at that time, many countries and regions sent

delegations to try to understand the Finnish recipe for innovation-led success (Veugelers et al., 2009). One of those countries was The Netherlands, with a new government desperately seeking stability after a prolonged period of political crisis. In 2002, the incumbent socialist-liberal coalition ('paars') had been unexpectedly ousted following the assassination of a rightwing radical politician, Pim Fortuyn. His party won sufficient seats in that election to participate in the governing coalition led by Jan-Peter Balkenende, but lacked the skills for coalition government. After barely three months in government, the Cabinet fell, and elections were called for in January 2003. This election returned a conservative-liberal coalition, again led by Jan-Peter Balkenende, who sought an overarching governmental theme to distance itself from the interventionism of 'paars' and the chaos of their previous short-lived administration.

The government was established under a programme characterised by three pillars, administrative reform, norms and values, and innovation. The idea was that innovation would revitalise the Dutch state and lead to economic growth, which would in turn deliver public savings. One of Balkenende's first acts in this innovation agenda was the establishment of a national 'Innovation Platform' in the Finnish mould, drawing together the leading actors in the field of innovation, and agreeing a programme to identify and address the main lacuna in the Dutch innovation system (Nauta, 2008). The Innovation Platform attempted to position itself in the already very dense Dutch landscape of consociational and corporatist networks, bodies and organs, and failed to rapidly make progress of the type anticipated at its launch. Yet, as one of the pillars of the Coalition's accord, it was important that the government should be able to identify progress in stimulating innovation and point to a successful Innovation Platform as central to the various projects and programmes which it had promoted.

The ideal opportunity came during the Dutch European Presidency in the second half of 2004. The Dutch identified five priorities for their presidency, one of which was restoring some momentum to the Lisbon agenda (*q.v.*), which, by 2004, was showing signs of unravelling at the European level. They commissioned former Prime Minister Kok (ironically enough, from the 'Paars' government) to undertake a review of how the Lisbon agenda could be delivered. The Dutch Presidency then organised a conference in Noordwijk on 11th–12th October 2004 to discuss what was euphemistically termed 'public-private partnerships' to increase European spending to achieve the Lisbon targets, and thereby follow in the footsteps of the highly successful Finland.

Part of this can be seen as an attempt by the Dutch government to gain kudos for one of its former policies for the leading research institutions (the Top Technology Institutions), in which businesses and universities had come together to undertake collective applied research in four technology areas, and later four social science areas. But part of this agenda was also pushing a Finnish style idea of Innovation Platforms as a means of both restoring impetus to the Lisbon agenda and simultaneously delivering the Dutch government accord. One outcome of the Noordwijk conference was an agreement amongst European participants that there was a need to develop pan-European sectoral innovation platforms to ensure the translation of

European research. Over the course of the coming years, this would translate into the proposal for Knowledge and Innovation Communities.

8.7.2 Top-Down: The European Valorisation Agenda

The European valorisation agenda emerged at the end of 2004 in response to a damning evaluation of the progress towards the Lisbon agenda in the period 2000–04. The Kok report on progress towards the Lisbon strategy was presented on 4 November 2004 and made a substantive claim around the failure of European and national institutions to make serious progress towards fulfilling the ambitions of the Lisbon agenda. It emphasised in particular a need to concentrate on growth and employment and downplay the social and environmental aspects of the original declaration's ambitions. The report also urged the Commission and its President to take urgent action in the following European Council to ensure that action was in time to deliver successful outcomes by the target date in the original declaration of 2010.

8.7.2.1 Innovation Platforms as a Solution to Europe's Sluggish Competitiveness

Three elements of the response of the Commission to the Kok report were to become influential in the emergence of the KICs. First was the proposal for the creation of a European Institute of Technology as a high-level European innovation platform. The second was 'Innovation Poles designed to help regional actors bring together the best scientific and business minds with the right resources to get ideas from the lab and into the workshop' (CEC, 2005, p. 8). Third, European Technology Initiatives were proposed as a means of creating concerted and focused European institutions supporting innovation and valorisation in specific technological domains. In the language used in the document, it is clear that the Dutch proposals for Innovation Platforms, in part justified by the success of the Finnish inter-Ministerial cluster programmes, were influential in persuading and shaping the idea of the Innovation Poles and European Technology Initiatives.

The proposals for the European Institute of Technology were developed by the Commission in 2005–06, and it was in formal response to this document in 2006 that the idea of the Knowledge and Innovation Communities emerged. The KICs brought together the three ideas for a European Innovation Platform, pan-European knowledge networks in priority areas, and localised exploitation networks.

> The EIT will perform its activities through Knowledge and Innovation Communities (KICs). Based on, but going beyond, a network approach, these are envisaged as integrated partnerships or joint ventures (whatever their precise legal form) between the private sector, the research community and excellent teams from research communities and universities whose human, financial and physical resources work together to promote the production, dissemination and exploitation of new knowledge products. To intensify their integrating nature, the KICs shall make use of state-of-the-art research networking and computing infrastructures. (CEC, 2006b, p. 4).

The reasons for this evolution can be understood in terms of the nature of the politics of European science and innovation policy and a tension with regional policy and territorial cohesion. European science and competitiveness policies are based on promoting excellence and concentrating resources in European leaders. By contrast, territorial development policy is focused on supporting innovation in all regions and improving performance to ensure that all regions experience the benefits of European integration. The KIC approach was designed to negotiate this tension and build a sufficiently broad coalition of support to ensure that enough countries supported the proposal to allow its passage into European law.

8.7.2.2 From the KIC Ideal to KICs in Practice

The implementation of the idea saw the creation of a formal European Institute of Technology which took responsibility for organising the creation of the KICs. This took the form of identifying both the thematic areas that those KICs would cover and soliciting and evaluating consortia proposals for communities to receive the allocated €300m. The EIT, which had become known as the European Institute for Innovation and Technology (in response to European Parliament pressure), was formally constituted in 2007. In 2009, following extensive stakeholder consultation with scientific and policy communities, the first (and at the time of writing) only call for KICs was launched (EIT, 2009).

This first call invited proposal from groups of firms, universities, and research laboratories for activities that linked excellence science, technology and innovation, helped develop human capital and fitted three priority areas, climate change mitigation and adaptation, sustainable energy, and future information and communication society (EIT, 2009). Although the term 'platform' was absent from the call for proposals, in terms of the detailed description of these KICs, the idea of innovation platform was clearly present, with the KICs playing the role of Inter-Ministerial sectoral Clusters in the Finnish model.

> A KIC is a collaborative partnership, a legally and financially structured and managed entity of internationally distributed but thematically convergent parties. (p. 2)

In response to the proposals, six consortia were shortlisted, two in each area (although KICs could have potentially been cross-thematic), and one appointed for each of the thematic areas. It is instructive to consider one of these in detail, the ICT_Labs KIC. This proposal brought together five co-location centres in Eindhoven, Paris, Helsinki, Berlin and Stockholm, each bringing together leading national partners in the field of ICT research. Each co-location centre was intended to be both a laboratory for further research and an example and dissemination centre to anchor a more general network of technology transfer and knowledge exchange in the field of ICT research. The Eindhoven co-location centre consisted of three partners, 3TU-NIRICT, Philips Research and Novay, whilst the core partners of the proposed Paris co-location centre were Alcatel-Lucent, Orange-France Télécom, Thomson, INRIA, Université Pierre et Marie Curie Paris 6, Université Paris-Sud 11, and Institut Télécom (ICT-Labs, 2009).

But what is interesting in the ICT-Labs proposal, replicated in the other two KICs, albeit to a much less explicit degree, is the extent to which these KICs built upon existing – national – knowledge networks and policies. The Paris co-location centre became integrated in the Paris Saclay super-campus proposal, part of the flagship French proposals to create a world-class university in France. The Eindhoven KIC brought together three partners, the three Dutch Technical Universities (3TU-NIRICT is the umbrella for their research activity), Philips and Novay. Novay used to be called Telematica, and before that, the Telematics Institute, one of the four Dutch Top Technology Institutes (*q.v.*).

More generally, there was a strong Dutch involvement in all three KICs, an academic consortium leading the Climate KIC (through Utrecht University), and through the Co-location Centre Benelux in the Climate Change KIC, which also involves Energy Centre Netherlands, an independent energy research institute. On the one hand, this reflects the reality that The Netherlands is a research-intensive country with a technological research base already oriented towards the thematic areas selected by EIT. But on the other, it also reflects the reality that the partner networks around innovation in The Netherlands were well-aligned with the vision for the EIT and the KICs, allowing the Dutch institutes to assume a substantial role in these networks.

8.8 ANALYSIS & DISCUSSION

At the outset of this chapter, we asked three questions which seemed to require answering as part of wider issues of the reform of the management of universities by the State. The example of the KICs was used as a means of exploring the limitations to the policy network approach for better managing university governance, and in particular providing market-based incentives without encouraging opportunism and collusion between institutions undermining those market disciplines. As a general observation, the KIC case makes it clear that the idea was not applied because it was a policy network approach. Rather it was applied successively by a range of partners who wanted to bask in some of the reflected glory of past experiments in more limited circumstances. This is interesting because it suggests that there will be a naturally self-selecting tendency for policy network approaches. If governments are inspired by successful examples, then they should only be inspired by situations which are comparable and have been successful.

But, of course, there is a solid literature on the dangers of institution copying, and what the KIC example shows is that success of a policy network in one environment is by no means a guarantee of success in another. If that were the case, then The Netherlands innovation platform would have been as successful as those in Finland, and, as Nauta convincingly demonstrates, this was not the case. This points back to the original argument that in the selection of policy network approaches, more attention should be paid to the comparability between the cases. An argument could perhaps be made that the Dutch Innovation Platform was less successful because it was primarily there to give a sense of something being done, whilst Finnish innovation platforms were being created to try to sustain the urgent economic

restructuring and reform process in the late 1990s. This has a set of corollaries to answer the three questions originally raised:

- how the idea of the policy network has been applied to higher education,
- the extent to which policy networks are of use in making sense of new forms of governance in higher education policy, and
- the implications that this might have for the development of more effective forms of higher education policy providing better steering and driving efficiency.

With respect to the first question, we would define the use of policy networks in the following way. Governments have sought to use them to deal with situations which are problematic, involving intractable or ill-defined problems, complex groupings of stakeholders and interests, demanding a solution with no easy end in sight. We distinguish between two dimensions or rationales for policy networks, between the experimental, in which they allow sense-making in novel situations, and between the displacement, in which governments can withdraw from having responsibility for these very different issues. The question can be raised as to whether under such circumstances, governments, by abdicating their responsibility from their own sphere to another institutional group, are not also giving out a signal that the problem is intractable and ill-defined, thereby increasing the possibility of a negative result. For those advocates of policy networks, more thought needs to be given to the possibility that adopting a policy network approach does not work against success and undermine the urgency of the solution.

Addressing the second question, the fact that governments have chosen to use policy networks in higher education gives one of potentially two strong messages regarding the way they consider universities, given these two complementary dimensions. The use of policy networks could be regarded positively, indicating that governments prioritise the issue and encourage positive solutions to emerge from within the sector. On the other hand, the use of policy networks could also be taken to suggest that universities are seen as being in some ways difficult to govern, whilst possessing untapped potential which is difficult to co-ordinate and incentivise. Reflecting on this suggestion in the light of the wider reform process hints at a scenario that the reform process—in the vernacular—may have 'bitten off more than it can chew'. The question that remains to be answered is the extent to which governments oscillate between two dimensions of policy networks, the 'experimental' and the 'displacing'. To understand the extent to which the reform process is problematic, one could consider more systematically whether experiments in governance are acquiring widespread support and becoming normalised, or whether they allow a postponement of improving efficiency in higher education.

These first two questions bring us some way towards answering the third question, and addressing the general point that policy network theory cannot of itself identify the kinds of circumstances under which policy networks are successful. Clearly, we underscore the point that this example does not suggest that they are an effective way of solving difficult problems. Policy networks can encourage a process of experimentation within limits which, if supported by later policy developments, can help a better governance of university and higher education systems. Perhaps the most interesting implication is the dynamism and evolutionary tendency of

higher education systems. Rather than attempting to create a system in equilibrium, policy-makers should think more clearly about the pathways their systems should evolve towards and ensure that policy networks are used more subtly to identify and disseminate successful improvements. Of course, such a short case study cannot validate this claim. This at least suggests an interesting avenue of future research, understanding today's governance experiments as a laboratory through which to better view, understand, and ultimately shape, the next generation of European higher education systems.

REFERENCES

Ackoff, J. (1999). *Ackoff's best: His classic writings on management*. New York: John Wylie.

Baumunt, Z. (1997). Universities: old, new and different. In A. Smith & F. Webster (Eds.), *The post-modern university? Contested visions of higher education in society*. Milton Keynes: Open University Press.

Barnett, R. (2000). Realising a compact for higher education. In K. Moti Gokulsing & C. DaCosta (Eds.), *A compact for higher education*. Aldershot: Ashgate.

De Boer, H. (2002). Trust, the essence of governance? In A. Amaral, A. J. Jones, & B. Karseth (Eds.), *Governing higher education: National perspectives on institutional governance* (pp. 43–62). Dordrecht/ Boston/London: Kluwer Academic Publishers.

Börzel, T. A. (1998). Organizing Babylon—On the different conceptions of policy networks. *Public Administration*, *76*, 253–273.

CEC. (1995). *Green paper on innovation*. Com 95-688. Retrieved from http://europa.eu/documents/ comm/green_ papers/pdf/com95_688_en.pdf

CEC. (2005). *Working together for growth and jobs a new start for the Lisbon strategy*. Brussels: Author, COM (2005) 24. Retrieved from http://ec.europa.eu/archives/ a). *Putting knowledge into practice: A broad-based innovation strategy for the EU*. COM (2006) 502. Retrieved from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM: 2006:0502:FIN:en:PDF

CEC. (2006b). *Proposal for a regulation of the European Parliament and the council establishing the European Institute of Technology*. Brussels: Author, SEC (2006) 1313. http://ec.europa.eu/education/ policies/educ/eit/doc/com604_en.pdf

CHEPS, INCHER & NIFU-STEP. (2009). *Progress in higher education reform across Europe governance reform*. Brussels: DG Education.

Consoli, D., & Patrucco, P.-P. (2008). Innovation platforms and the governance of knowledge: Evidence from Italy and the UK. *Economics of Innovation and New Technology*, *17*(7), 699–716.

Deitrick, S., & Soska, T. (2005). The University of Pittsburgh and the Oakland neighborhood: From conflict to cooperation or How the 800-Pound Gorilla learned to sit with—and not on—its neighbors. In D. C. Perry & W. Wiewel (Eds.), *The university as urban developer: Case studies and analysis*. New York: M.E Sharpe.

Dowding, K. (1995). Model or metaphor? Review of the policy network approach. *Political Studies*, *XLIII*, 136–158.

Eisenhardt, K. (1989). Agency theory: An assessment and review. *Academy of Management Review*, *14*(1), 57–74.

EIT. (2009). *Call for proposals EIT-KICS-2009 – Knowledge and innovation communities*. Budapest: Author. Retrieved from http://eit.europa.eu/fileadmin/Content/Downloads/ PDF/kics/KICS_call_ 2009_04_02.pdf

Heclo, H. (1978). Issue networks and the executive establishment. In A. King (Ed.), *The new american political system* (pp. 87–124). Washington, DC: American Enterprise Institute.

ICT_Labs. (2009). *Future information and communications society: Partners*. Berlin: Author Retrieved from http://eit.europa.eu/fileadmin/Content/Downloads/PDF/Designated_KICs/EIT_ICT_ Labs_Partners.pdf

Jongbloed, B., Enders, J., & Salerno, C. (2008). Higher education and its communities: Interconnections, interdependencies and a research agenda. *Higher Education*, *56*(3), 303–324.

Kickert, W. (1995). Steering at a distance: A new paradigm of public governance in Dutch higher education. *Governance*, *8*, 135–157.

Kickert, W. J. M., & Klijn, E. H., et al. (Eds.). (1997). *Managing complex networks. Strategies for the public sector*. London: SAGE Publications Ltd.

Kok, W. (2004). *Facing the challenge. The Lisbon strategy for growth and employment*. Brussels: Commission of the European Communities.

Koppenjan, J. F. M., & Klijn, E. H. (2004a). *Mananging uncertainties in networks*. London: Routledge.

Longden, B. (2001). Funding policy in higher education: Contested terrain. *Research Papers in Education*, *16*(2), 161–182.

Maassen, P. A. M. (1996). *Governmental steering and the academic culture*. Utrecht: De Tijdstroom.

Marsh, D., & Rhodes, R. A. W. (1992). Policy communities and issue networks. Beyond typology. Policy networks in British government. In D. Marsh & R. A. W. Rhodes (Eds.), (pp. 249–268). Oxford: Clarendon Press.

Mayntz, R. (1997a). *Soziale dynamik und politische steuerung. Theoretische und methodologische uberlegungen*. Frankfurt am Main: Campus Verlag.

Nauta, F. (2008). *Het innovatieplatform: Innoveren in het centrum van de macht*. Dordrecht: Academic Service.

Neave, G., & van Vught, F. A. (Eds.). (1991). *Prometheus bound: The changing relationship between government and higher education in Western Europe*. Oxford: Pergamon.

OECD. (2008). *Tertiary education for the knowledge society: Vol. 1, Special features. Governance, funding, quality*. Paris: Organisation for Economic Co-operation and Development.

Provan, K. G., & Kenis, P. (2007). Modes of network governance: Structure, management, and effectiveness. *Journal of Public Administration Research and Theory*, *18*, 299–252.

Romanainen, J. (2001). Cluster approaches in technology policy. In E. M. Bergman, P. den Hertog, D. R. Charles, & S. Remoe (Eds.), *Innovative clusters: Drivers of national innovation systems*. Paris: OECD.

S&TC. (2005). *'Strategic science provision in English Universities', science and technology committee eighth report of session 2004–05*. London: HMSO, HC 220-I.

Scharpf, F. W. (1994). Games real actors could play. Positive and negative coordination in embedded negotiations. *Journal of Theoretical Politics*, *6*(1), 27–53.

Scott, P. (2007). The 'nationalisation' of UK universities 1963–2007. In J. Enders & F. van Vught (Eds.), *Towards a cartography of higher education policy change*. Enschede: UT/CHEPS.

Veugelers, A., Breznitz, E., Murray, O., Hyytinen, K., Ketokivi, L., Maliranta, M., et al. (2009, October 28). *Evaluation of the finnish national innovation system – policy report*. Taloustieto Oy.