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Chapter 8.
Knowledge and the 'Europe of the Regions':
The Case of the High North

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1. Introduction

In the European context, *knowledge* has been at the forefront of policy debates ever since the 2000 Lisbon summit of heads of states, with economic competitiveness and social cohesion as basic pillars of the European project (Gornitzka 2007). Particular attention has been paid to existing socio-economic asymmetries at the national and sub-national levels, substantiated around the idea of a 'Europe of the Regions' (Borras-Alomar *et al.* 1994). In policy terms, the *regional dimension* is "intended to reflect better the cultural and national divisions within Europe and, therefore, to tackle more adequately the problems left unsolved by the 'obsolete' national structure." (*ibid.*, p. 28) At the national level, "lagging regions" are seen as critical impediments with respect to economic, social and territorial cohesion (European Commission 2007). Regional competitiveness, economic growth and employment are key items of national and supra-national policy agendas. At the sub-national level, a set of framework conditions as per the underlying regional infrastructure are highlighted.

[...] *physical*, in the form of transport and telecommunication networks, *human*, in the form of the skills and know-how of the work force, and *social*, in the form of care and other support services. They [conditions] also include the *capacity for innovation*, which is an increasingly important determinant of competitiveness and which is linked to human resource endowment but which encompasses as well the resources devoted to R&D and the effectiveness with which they are used (European Commission 2007: 60; emphasis added).

When it comes to the role of particular social actors, universities have been identified as critical players in the context of the 'Europe of Knowledge' (Pinheiro 2007; Gornitzka *et al.* 2007) given their role in the *transmission, production and dissemination* of knowledge (European Commission 2003: 2; Maassen and Stensaker 2011). Recent studies have highlighted the critical role of higher education systems in general, and universities in particular, in processes of socio-economic development and global competitiveness (Harding *et al.* 2007; Lester and Sotarauta 2007; Mohrman

2009; Nilsson 2006; OECD 2007). Notwithstanding, inquiries have had a tendency for focusing on *macro-level* dimensions – regulative framework, policy instruments, local governance structures, regional characteristics and dynamics, etc., instead of shedding light on the “black-box” of organizational behavior (Maassen and Stensaker 2005), particularly with respect to the interface between external trends and internal dynamics (Perry and Harloe 2007).

This chapter is an attempt to address the existing knowledge gap by focusing on dynamics occurring within a larger European context and within the scope of peripheral regions facing major socio-economic challenges. As is the case with many regions across the Continent, Northern Norway is currently undergoing a historical transition from a predominantly primary sector driven towards that of knowledge-based economy. The backdrop for the investigation is a far reaching national policy initiative aimed at transforming the region into a global contender across a number of strategically selected fields. Particular attention is given to the strategic role of the regional higher education sector.

The chapter is organized in two distinct sections. The first section sheds conceptual light on the concept of *region* on the one hand, and the phenomena of *regionalism* and *regional policy* on the other. This is followed by a brief discussion on the role of regions in the context of a global knowledge-based economy and the linkages between regional- and higher education-policies. The second section of the chapter is based on the case study under analysis. Two aspects are investigated: (a) national policy frameworks (“high-north strategy”); and, (b) institutional dynamics, with focus on the institutionalization of the regional mission at the University of Tromsø. The chapter concludes by reflecting on the importance of knowledge structures in the context of national, international and supra-national policy initiatives and the role of university systems in processes of socio-economic development at the regional, national and international levels.

2. Region, Regionalism and Regional Policy

The region as a social science concept

Regional scientists refer to the distinction between *formal* and *functional* regions (Bukve 2005). The former are either seen as sharing characteristics along one or more dimensions (language, ethnicity, history, industrial structure, etc.) or as belonging to the same administrative and/or political unit. The latter are identified or grouped on the basis of their apparent similarities; “urban” vs. “rural”, “industrial” vs. “service”, etc. Similarly, political scientists shed light on the distinction between the concept of region as either referring to *groups of countries* (e.g. “Western Europe”) or as pertaining to a *territorial entity* below the level of the nation-state (Keating and Loughlin 1997). As sub-national territorial entities, regions can be of *four* distinct types:

- ***Economic regions***; primarily defined according to their economic characteristics (e.g. urban/rural, industrialized/de-industrialized) and/or as referring to territories designated by national governments for economic development

- ***Historical/Ethnic regions***; marked by the presence of human societies sharing historical and cultural/linguistic features different from that of the dominant culture of the nation-state in which they locate themselves
- ***Administrative/Planning regions***; organized by the state for the primary purpose of policy-making or data gathering, without any political function (elected council or assembly)
- ***Political regions***; possessing democratically elected councils or assemblies which create the backbone for a fully-fledged regional government (Keating and Loughlin 1997: 2).

One of the critical aspects surrounding the conceptualization of regions pertains to differences across disciplines. In Europe, there have been recent attempts at re-constructing the above concept along inter-disciplinary perspectives (Schmitt-Egner 2002). At the heart of this effort lies the notion of region with reference to *four* key features: (i) *space* (a partial unit); (ii) *function* (intermediary); (iii) *scale* (medium-sized); and, (iv) *subject* (territory). Regardless of its sub-national, trans-national or inter-national character, a region is then defined as: a “spatial partial unit of intermediary and medium-sized character whose material substratum is based on the territory” (ibid. p. 181). It is assumed that a given region does not exist in a vacuum, thus being nested (embedded) into a specific “regional system” composed of *four* basic elements: a *regional structure*; a *regional program*; a set of *regional actors*; and, a *system-environment*.

Regional life is a system of behaviour embedded in an environment, an environment that can be distinguished by its networks of vertical and horizontal relations. The regional system is exposed to vertical influences deriving from the other systems – principally those at national and supranational levels – in which it is embedded... (Schmitt-Egner 2002: 184)¹

Regionalism

The literature makes a conceptual distinction between “old” and “new” forms of *regionalism* (Keating 2000; Paasi 2009). *Old regionalism*, prominent in the period 1950s-70s, is associated with central government planning and the idea of redirecting public and private investments towards underdeveloped or declining domestic regions.² In contrast, *new regionalism* (1990s onwards) follows broader developments in world society/economy through the application of competitive-based approaches (see Porter 1990). Within the scope of a globalized division of labor, regions are

¹ It “is important to understand regions as social constructions, shaped by political, economic, cultural and administrative practices and discourses, both exogenous and endogenous, instead of the common perception of regions as independent entities, natural contexts or passive containers for the development of society” (Leknes 2008: 3).

² The main policy instruments used in the “old” regime tended to be based on infrastructure investments, grants, tax breaks, and physical planning controls (Keating 2001: 217).

expected to become highly competitive entities (OECD 2005, 2010). In contrast to older approaches which tended to focus on *exogenous* factors like governmental policy, advocates of the “new regionalism regime” stress the importance of factors *endogenous* to the region – historical trajectories, core competencies, demographics, etc., and are keen to conceive of regionalization processes as dynamic systems.³

[...] current processes of regionalization are more from “below” and “within” than before, and that not only economic, but also ecological and security imperatives push countries and communities towards co-operation within new types of regionalist frameworks. The actors behind regionalist projects are no longer states only, but a large number of different types of institutions, organizations and movements. Furthermore, today’s regionalism is extroverted rather than introverted, which reflects the deeper interdependence of today’s global economy (Herkenrath 2008: 97).⁴

Given the prevalence of globalization processes (Ritzer and Atalay 2010), regional scholars have proposed a more nuanced perspective moving beyond “old” and “new” types of regionalism as to encompass “post-modern”, “transnational”, and “international” forms (Schmitt-Egner 2002: 189). *Post-modern regionalism* aims at establishing economic and technology-driven regions by focusing on critical input factors such as modern technology and innovation. The dominant issues here are globalization and global (inter-regional) competitiveness and the main actors involved include global firms and technology and knowledge-intensive organizations (e.g. universities).⁵ *Transnational regionalism* expands beyond the post-modern type to include both ‘symbolic’ and ‘formal’ reproduction as major goals of the regionalization process. Its primary focus lies on the transnational interaction process, “whereby the regional actor attempts to promote the internal regional programme by external, transnational cooperation and networking” on the basis of *exchange* (of knowledge, best practices, etc.) and *learning* (Schmitt-Egner 2002: 190). Finally, *international regionalism* is associated with the concept of inter-governmental organization or network. Unlike the other types of regionalism described earlier, the “action space” here is *international* rather than sub-national with the actors involved being primarily engaged in the pursue of material reproduction (e.g. economic development) within the scope of globalization and/or global governance.⁶

³ Within the scope of the “new regionalism” the concept of *region* falls into three basic categories or types: (i) *sub-national* or “micro” regions, operating with the borders of a single sovereign state; (ii) *transnational* or “subregions” regions, transcending national borders but only including selected areas rather than entire states; and, (iii) *international* or “macro” regions, involving several states (Herkenrath 2008: 97).

⁴ Critics of the “New Regionalism Theory” (NRT) argue that the latter tends to downplay the role of geography at the expense of social processes (Ndayi 2006: 113).

⁵ “Postmodern regionalism is therefore not based on a social movement but on a strategy of development (i.e. material reproduction), where the regional actor aims to foster the regional economy by promoting the competitiveness of small and medium-sized enterprises (SMEs) and regional locations within the framework of globalisation” (Schmitt-Egner 2002: 190).

⁶ The European Union and its various economic integration efforts would fall into this latter category.

Regional policy

According to Hansen *et al.* (1990: 2), regional policy “constitutes any and all conscious and deliberate actions on the part of government to alter the spatial distribution of economic and social phenomena”. Such a process encompasses such key aspects as population, income, government revenues, production of goods/services, transport facilities, social infrastructure, and even political power. The above definition sheds light on the fact that *regional* includes a wide variety of dimensions, thus moving beyond local- development or planning to accommodate broader elements associated with trade, energy, security, science policy, etc. This has led some scholars to argue that, “regional policy and planning are a major part of national policy and planning” (Higgins and Savoie 1997: 342). In practical terms, regional policy can be conceived as an instrument or *tool* used by national governments to both implement and control the regional program from the outside; “together with, without, or against the regional actor” (Schimtt-Egner 2002: 186). Hence, from the perspective of policy makers, the region is a *defacto* policy unit (Gatrell and Spiker 2002: 6).

Up to the early 1990s, regional policy, in Europe and elsewhere, followed the lines of “old” regionalism by accruing a central place to the state bureaucracy as the major planner of regionally-related activities (policy interventions), particularly insofar social and economic dimensions. From the mid-1990s onwards, and as a means of responding to a broad set of new (economic, technological, political and cultural) developments, regional policy gradually shifted towards greater decentralization (devolution of authority) at the local level. First and foremost, the latter process aimed at enhancing *horizontal integration* and *problem-solving* (Keating 2000). Various social science scholars shed light on the fact that, in recent years, the rationale behind regional policies across various national contexts emphasizes the development of institutional capacity (political, economic and cultural), with considerable attention attributed to *strategic planning* (see Leknes 2008). In essence, institutional capacity building is seen as a cornerstone for the rise of *networks* of cooperation or partnerships both *within* and *beyond* the geographic scope of the region. Network building is considered an essential element for the success of the regional programme, not only due to its centrality in enhancing “social capital” (Wolfe 2002), but also given the presence of ‘untraded interdependencies’ (Storper 1995) substantiated around complex social and economic relations characterized by *competitive* and *cooperative* arrangements or *cooperative* networks (Ritala *et al.* 2008).

In a nutshell, whereas older regional policy paradigms placed a strong emphasis on the development of physical infrastructure (see Rietveld 1989), newer approaches conceive of human resources development (education and training), R&D and technology transfers as building blocks for development processes at the local level (OECD 2008; Keiting 2001: 218; World Bank 1999, 2002). This basically means that, from the perspective of national policy-makers and/or regional-planners, the key actors involved in the implementation of the regional development programme are: local government agencies; industry; universities; and other knowledge-based entities belonging to the regional system.

3. The rise of learning and innovative regions

In the context of an increasingly globalised economy, regions are becoming focal points for knowledge creation and learning. One way in which this phenomenon is conceptualized in the literature is around the notion of “learning regions” (Florida 1995). These are conceived as *collectors* and *repositories* of knowledge structures and/or ideas, providing the underlying environment (local infrastructure) for knowledge flows and learning to occur. According to Keane and Allison (1999: 901), the “learning region approach provides a dynamic framework which affords an opportunity to capture direct and indirect impacts in the regional economy.” Two of the areas being contemplated in the literature pertain to the importance attributed to collective learning processes or *social networks* on the one hand, and the presence of a number of social and economic *institutions* – government agencies, industry, universities, etc., on the other (Keeble *et al.* 1999; Morgan 1997). In this respect, it is argued, “institutional thickness” (Keeble *et al.* 1999), i.e., the *size, nature* and *capability* of local institutions and resources, together with network-type arrangements both formal and informal, are critical factors in determining a given region’s ability to *process, generate* and *diffuse* scientific knowledge and innovations; a process known as local “absorptive capacity” (Vang and Asheim 2006). Scholars have pointed to the interplay between *learning regions, local economic development, and higher education* while arguing that the regional value of universities “lies in the linkages and quality of embeddedness in the local economy” (Keane and Allison 1999: 896).

An area that has received considerable attention, by policy makers and social scientists alike, lies on the contribution of universities to the development of *regional innovation systems* geared towards leveraging the competitiveness, national and international, of the region as a whole (Charles 2006; Gunasekara 2006; Lester and Sotarauta 2007). The primary policy instrument or mechanism through which this process has been achieved is by leveraging the collaboration between universities and regional public and private sectors in the form of “triple-helix” arrangements (Etzkowitz and Leydesdorff 1997). There is increasing evidence of the institutionalization of such processes across various geographies, as is the case of the Nordic countries (Gulbrandsen and Nerdrum 2009; Nilsson 2006; Srinivas and Viljamaa 2007).

4. Regional Policy and Higher education: The cases of Norway and Finland

According to Hansen *et al.* (1990: 281), “regional policies reflect a mutual interaction between the socioeconomic evolution of a nation and the prevailing economic and social philosophy of the time.” In Europe, the linkages between higher education and regional policy can be traced back to the late 1950s/early 1960s (Dahllöf and Selander 1994; Neave 1979; Paterson 2001), as a direct result of an initial impetus in society for widening access into higher education (see Pinheiro and Maassen in press; Tapper and Palfreyman 2005). During this period, European governments used two distinct policy instruments. They either created a new set of institutions geographically located in peripheral regions, what has been termed *geographical decentralization* or, instead,

attributed a particular task (regional mandate) to certain types of academic establishments in the form of *institutional decentralization* (Kyvik 2009: 61-82).

The example of Northern Europe is used here to briefly illustrate historical developments around the linkages between regional policy and higher education.⁷ Both in Norway and Finland the regionalization of higher education, initiated in the mid-1950s, has historically been associated with a strong focus attributed to regional development policy at the national level (Antikainen and Jolkkonen 1994; Bleiklie *et al.* 2000; Onsager and Selstad 2004).

In Norway, regionalization has been an important policy theme ever since the post-WWII period, with regional policy traditionally conceived as a central government-led policy of spatial distribution under the label of district policy (*distriktpolitikk*) instead of a means of directly promoting regional autonomy as such (MoE 2005: 39).⁸ The initial rationale for regional policy (period 1945-1960) focused almost entirely on *capacity building* (physical and social infrastructures), with a particular emphasis given to the Northern most parts of the country and following the general lines of the traditional welfare (Keynesian) economics (Foss *et al.* 2004: 112). The period 1960-1975 was marked by general optimism regarding regional planning, resulting in the institutionalization of regional policy and the establishment of regions as separate policy layers. In the realm of higher education, nation-wide policy developments culminated, in the late 1960s, in the creation of regional colleges throughout the country. The colleges had the explicit task or mission of catering for the human resource needs of their immediate local surroundings (Kyvik 1981). The creation of a regional higher education system was a direct consequence of infusing regional policy into the government's educational policy (Bleiklie *et al.* 2000: 92; MoE 2005: 40).

Throughout the 1960s and 1970s, the establishment of regional colleges across the country became the symbol of the new policy direction across the entire higher education sector (Aamodt 1995: 65). According to Bleiklie *et al.* (2000: 74), "regionalism became a powerful political argument in higher educational policy, and contributed to a political climate that put the [existing] universities [Oslo and Bergen] at a disadvantage." In the spirit of devolution, Norway's central government delegated the coordination of activities to regional councils of higher education, and provided local colleges with considerable administrative autonomy in the development of their own regional profiles.⁹ In the early 1970s comprehensive universities in the central (Trondheim) and Northern (Tromsø) parts of the country, together with a number of *regional research foundations* focusing on applied science, were established.

In the past three decades, the majority of newly established higher education institutions in Norway have had explicit regional policy objectives alongside the

⁷ For accounts across other national contexts, e.g., U.S.A., Australia, Canada and Japan, consult Christy and Williamson (1992), Harman (1994), Hill (1994), and Kitagawa (2006), respectively.

⁸ In Norway, regionalization policy has been characterized by a strong "top-down" orientation and a rather paternalistic attitude by central government towards the regions. The relationship between *centre* (government) and *periphery* (regions) has traditionally been based on a mutual lack of trust. Policy aimed at promoting regional autonomy (regionalization) is a relatively late development in Norway, dating to the 1970s.

⁹ Previous studies suggest that the vast network of higher education institutions spread across the country have had a positive developmental effect on rural areas (Langeland 2010: 17).

traditional educational mission (MoE 2005: 40). Recent policy developments (2003/4 Quality Reform) have had clear implications with respect to the patterns of regional collaboration between academic institutions and various external stakeholders; industry, government, civil society, etc. The environmental conditions under which Norwegian higher education institutions operate became increasingly complex as a result of fiercer competition, for national and regional students (Kyvik 2009), and renewed government calls for strengthening inter-institutional cooperations across the board (NOU 2008). Regional development has also been a key item in the policy agenda, materialized around the policy desire for the establishment of study programs better aligned with the needs of the local economy (MoE 2005: 41). Having said that, slight variations are detected in the emphasis attributed by policy frameworks at the national and sub-national levels.

[...] throughout the last 30 years, *national policies* have focused on enhancing the economic and cultural role of higher institutions in their respective regions. *County level* policy initiatives are increasingly more engaged in the shaping of regional innovation systems including the higher education institutions, which are perceived as key institutions for the economic, social and cultural development of regions (MoE 2005: 40; emphasis added).

Turning now to Finland, the era of regional policy was initiated in the late 1950s with the establishment of the University of Oulu in the Northwest part of the country (Antikainen and Jolkkonen 1994: 250). Yet, it was only in the mid-1960s that the first regional development legislation came into force (Arbo and Eskelinen 2003: 8). Throughout the late 1960s and early 1970s, various smaller universities were created in the Eastern and Western parts of the country on the grounds (policy rationale) of equal opportunities and regional development. As it was the case in Norway, the regional expansion of the Finnish university sector was tightly linked with regionalization policy at the national level, which, in the 1960s and 1970s, primarily focused on such aspects as: *industrialization; agriculture; infrastructure development; and the expansion of social services* (Antikainen and Jolkkonen 1994: 254). Yet, historically speaking, contrary to what was the case in Norway, in Finland there has been a clear distinction between regional- and higher education-policy frameworks. The former aimed at the diversification of the industrial base throughout peripheral areas, whereas the latter were strongly connected with the rise of the welfare-state (Arbo and Eskelinen 2003: 8).

From the perspective of national policy makers, the regional expansion of Finland's university sector across the country (1960s onwards) was substantiated around *three* main premises or outcomes: (i) *locational effects*, resulting from the economic demand for new goods and services like buildings and individual consumption; (ii) *infrastructure developments*, both traditional (physical) as well as knowledge/cultural-based (communications, libraries, theatres); and, (iii) the *expansion of public-funded social services* like healthcare, education, etc., via the training of qualified professionals (Antikainen and Jolkkonen 1994: 254). In the mid-1980s, and as a consequence of the emerging "innovation-driven doctrine", reforms in

regional policy were initiated, a process that became increasingly prevalent during the 1990s. Traditionally, regional policy in higher education was either regarded as a component of the “service-network” characterizing the Finnish welfare state or, instead, was seen as an extension of the local industrial infrastructure with no explicit expectations (goals) with respect to the regional role of universities. However, under the new “innovation regime” initiated in the 1990s, universities, along with other actors composing the regional knowledge infrastructure, were expected to play a critical role in fostering networks of innovation at the regional level (Hölttä 2000).¹⁰

The above developments were accompanied by an extensive reform of the domestic higher education system, culminating in the establishment of a new non-university sector composed of vocationally- and/or professionally-oriented *polytechnics*.¹¹ As part of the government’s recovery strategy to tackle the deep recession of the early 90s, universities and polytechnics alike were given a specific task in the implementation of the national program aimed at transforming Finland into a leading “information society” (Castells and Himanen 2004; Hölttä and Malkki 2000). Whereas universities were now expected to contribute directly to the development of a *national innovation system* (see Nelson 1993), polytechnics, on the other hand, were given the task of help establishing vibrant *regional innovation systems* across the entire country (Hölttä 2000; Lester and Sotarauta 2007). Both strategies were substantiated around “triple-helix” arrangements involving higher education institutions, local government agencies and industrial actors (Etzkowitz and Leydesdorff 1997).

5. Norway’s High North Strategy

In Norway, one of the most significant regional policy developments in recent years pertains to an ambitious government-led initiative known as the “High North Strategy” (MoFa 2006, 2009). Officially launched in the end of 2006, this policy platform spans across a broad portfolio of strategic areas; foreign policy, knowledge generation and competence building, environment, indigenous people/culture, marine resources, transportation, business development, oil exploration, etc.¹² In spite of having Northern Norway as its primary focus, the scope of the new policy/strategic framework moves beyond national borders to encompass the Arctic and Barents Sea regions¹³ via active cooperation with neighboring countries (Russia, Sweden, Finland, and Greenland/Denmark) and parties involved with Northern-related issues on a global

¹⁰ In the 1990s, the Finnish regional development infrastructure was deeply reformed, *inter alia*, via the integration of different governmental and regional actors, public and private, which joined resources in order to promote more effective local development processes (Hölttä 2000: 472).

¹¹ The establishment of a binary system composed of a university and a polytechnic sector was not accomplished until the mid-1990s, to a great extent due to policy decisions throughout the 1960s and 1970s with respect to the role of universities in regional development (Hölttä 2008: 105).

¹² Led by Norway’s Ministry of Foreign Affairs, a total of 14 Ministries are directly involved with the strategy.

¹³ The Arctic region covers an area of more than 30 million square kms (a sixth of the earths’ landmass) and a population of about 4 million people (across 24 time zones). The Barents Sea is a part of the Arctic Ocean and is located North of Norway and Russia, an area with enormous energy potential.

scale like the U.S.A, Canada and the EU.¹⁴ A special attention is attributed to the critical role of skills and knowledge.

Knowledge is at the core of the High North policy, and is closely linked to environmental management, utilization of resources and value creation. As a nation, we need more knowledge in order to fully seize the opportunities ahead and meet the challenges we are facing in the High North [...] Education, competence and knowledge will provide the key to realizing the opportunities in the High North (MoFa 2006: 23).

In 2009 the central government outlined a series of concrete measures aimed at strengthening the knowledge-based infrastructure across Northern Norway (MoFa 2009). These include but are not limited to the establishment of a leading, international center for environmental and climate research in the High North, materialized in the form of collaborations amongst existing scientific institutions in/around the city of Tromsø; hence, making the region the focal point for global knowledge and expertise on environmental-related issues. The government, via the Norwegian Research Council, has also made available a new set of funding instruments designed to stimulate knowledge generation across a wide variety of key areas for the region; marine life, petroleum exploration, the environment, climate and polar research, international cooperation, etc.¹⁵

The strategic plan highlights the need to promote business development across the board, e.g. in areas like tourism and mineral-based industries, and sheds light on the critical importance of innovation and development initiatives targeting regional public and private sectors (MoFa 2009: 25-30). One concrete measure in this respect includes a nation-wide “action plan” aimed at promoting a culture of *entrepreneurship*. The government’s strategic platform also points to the need for critical improvements in the existing knowledge and technological infrastructures. A special emphasis is given to the higher education sector in the context of knowledge transfers and innovation. Cooperation amongst regional actors is seen as paramount, with higher institutions across the High North identified as stakeholders.

The drivers of the knowledge building system will be a knowledge-based business sector, research institutions and administrative bodies, and universities and university colleges. It is important that all of these cooperate effectively to ensure local ownership and the strongest possible support for these measures in the north [...] It is essential that the knowledge institutions in the region are competitive, both nationally and internationally [...] It is of great importance to promote the formation of networks and division of labor between higher education institutions in the north, as elsewhere. It also attaches importance to enhancing cooperation on knowledge building rather than competition between the institutions (MoFa 2009: 31-2).

¹⁴ The effort builds on existing supra-national policy structures like the Nordic/Arctic Councils and the EU.

¹⁵ Close to NOK 500 million is to be made available over a period of 10 years.

The government's willingness to promote tighter cooperation amongst regional higher education providers, and between these and other knowledge actors located in the region, is driven by the policy desire to enhance *system-level coordination* and the development of local *centers of expertise* in Northern-related issues. The latter are expected to act as magnets for recruiting and retaining young, academic talents and highly qualified scientific personnel. The above plan also outlines the need for further developing the existing transportation networks (roads, airports, ports) throughout the region as a means of enhancing the mobility of goods and people. Tighter links with neighboring countries, an upgrade of the power (electric) and space-related (satellite navigation systems) infrastructures, and the production of renewable energy are major priorities (ibid. p. 33-7). On the social front, the strategy emphasizes the need for safeguarding the cultures and livelihood of indigenous people. In this respect, there is an official appeal for a stronger collaboration between the existing regional centers of expertise – University Tromsø, Sami University College and Finnmark University College, for example, on building a repository of traditional Sami knowledge. Other strategic measures include: establishing a business development program targeting indigenous peoples; developing ethical guidelines for economic activities in the region; devising a digital infrastructure for indigenous language; and, strengthen the capacity of local Sami-institutions.

The High North strategy represents a fundamental shift in regionalization policy. Contrary to what has occurred in the past where local actors were seen as implementers of the policies devised by central government agencies, regional actors have played a much more active instrumental role when it comes to problem-assessment and in help setting concrete policy goals and instruments. This effort was enhanced by the establishment of an *advisory committee* composed of various regional constituencies across public and private sectors.¹⁶ Not only did the above committee acted as a *forum* for regular interaction (trust- and consensus- building) amongst regional stakeholders, but has also been an important *platform* for the sharing of expectations and ideas between local actors and national governmental structures.¹⁷ This situation contrasts sharply with past accounts, where regional government structures (county/municipality levels) have, traditionally, been rather passive, i.e., reactive rather than proactive, in responding to emerging (macro-level) national and international, trends and developments.

6. The University of Tromsø: Economic Engine and Knowledge Hub

¹⁶ The above committee was led by the Rector of the University of Tromsø, who has been instrumental in educating regional actors about the opportunities brought by the High North strategy and in drawing attention towards the importance of knowledge in the context of the future development of the region. The Rector has acted as the *defacto* public face of the region in national level discussions (press/media), and has taken full advantage of his involvement with national structures at a variety of levels, e.g., as head of the national association of higher education institutions (2007-2009 period).

¹⁷ One key area pertains to promoting the city of Tromsø as an international knowledge-hub (“High North Cluster”) for Polar/Arctic research, around a number of strategic themes like *marine bio-prospecting*. The University of Tromsø is, since 2007, host to a center for research-based innovation (SFI) in the latter area.

Institutional profile and strategic framework

The idea of establishing a university in the Northern most parts of the country dates back to the 1920s. In the late 1960s, as a result of increasing popular demands for accessing higher education (see Pinheiro and Maassen in press) and the lack of skilled professionals – medical doctors, dentists, teachers, lawyers, etc., across Northern Norway, the Norwegian Parliament approved the government's proposal for the establishment of a new comprehensive university in the city of Tromsø, the region's largest urban area and its *de-facto* capital.¹⁸ It was pointed out that the new academic establishment would, first and foremost, act as an *engine* for economic, social, and cultural development of the Northern region (Stensaker and Norgård 2001: 476).¹⁹ The aspiration (vision) was to become a first-rank national, research-based institution rather than a traditional local establishment in the lines of the existing regional colleges (Arbo and Eskelinen 2003: 12). The University of Tromsø (UiT) was officially opened in 1972, by King Olav V. There were plenty of negative reactions by the academic establishment in Oslo and Bergen, particularly regarding the establishment of a new faculty of medicine in the far North. The main arguments advanced by skeptics ranged from the lack of economic resources to the difficulties in attracting sufficient numbers of qualified students and staff (Stensaker 2004: 127). In contrast, regional actors reacted very positively to the idea of a comprehensive university *in and for* Northern Norway (Pinheiro 2012).

The skepticism expressed by Norwegian academe provided the foundation for an internal impetus substantiated around a sense of a *unique profile and identity* (Hjort 1973). The strategic plans leading to UiT's creation highlighted that the institution should aim at being something different from the traditional universities based elsewhere. Three key aspects came to the fore: (a) a strong *democratic orientation* (see de Boer and Stensaker 2007), particularly with respect to the role of students and non-academic staff in matters of internal governance; (b) an *inter-disciplinary and problem-solving* approach (see Gibbons 2000), aimed at better integrating theory and praxis; and, (c) a focus on the needs of the surrounding region, substantiated around a strong *service-orientation* (see Salerno 2007) towards various local actors (see also Arbo and Eskelinen 2003; Bull and Vorren 1998; Stensaker 2004). In essence, UiT's original mandate was that of a broad, modern or innovative university based on the combination of various subject-areas – medicine, social sciences, marine biology, arctic research, etc., on the one hand, and an adequate balance between *universalistic* (scientific excellence) and *regional* (local relevance) postures, on the other (see Perry

¹⁸ Norway is divided into *five* major administrative regions (*landsdeler*) and a total of 19 administrative counties (*fylker*). The three northernmost counties - Nordland, Troms, and Finnmark - compose what is known as the region of Northern Norway (*Nord-Norge*). Together, they cover approximately 113 thousand square kilometers, a third of the entire country, and possess 460 thousand inhabitants, 9.6 percent of the country's total (SSB).

¹⁹ Historically, fishery and farming have dominated the life of the region. In the last 30 years or so, *Nordland* became a stronghold for industrial activity, *Troms* has been the stage for the rise of a tertiary sector and tourism (North Cape), and energy exploration have become important sources of income for *Finnmark*. Northern Norway is characterized by its vast public sector infrastructure, the largest in the country in per capita figures. The regional health sector alone comprises a total of 11 public-run hospitals, serving less than half a million inhabitants.

and May 2006). A major policy goal was that the bulk of UiT's student population would originate from within the Northern region.²⁰

Today, the regional higher education landscape is composed of a total of seven public-run providers, of which *two* are universities and *five* are university colleges. In 2009, more than 19 000 students or 9 percent of national enrollments attended some form of higher education programme across the region (DBH).²¹ In the same year, a voluntary decision was taken to merge UiT with the local university college, thus creating a much larger institution.²² Following the merger, UiT enrolled close to 9 000 students (47 percent of regional enrollments) across its 6 faculties, and employed 2 500 staff members, 60 percent of whom were directly involved with core (teaching and research) activities. Close to two thirds of all enrollments occurred at the (two) newly established “mega-faculties” of the *Health Sciences* and the *Humanities, Social Sciences and Teacher Training*. The *Faculty of Marine Sciences, Fisheries and Economics* was the third largest unit with 12 percent of total enrollments. About two thirds of all first-time applicants originated from the three Northern counties (UiT 2009b), with slight variations across fields of study.²³ In 2010, international audiences represented about 8 percent of the student population. The internal unit with the largest number of scientific staff is, by far, the faculty of *health sciences* with a third of the total. The four newly created *mega-faculties* employ close to 90 percent of all the scientific personnel, with the remaining evenly split amongst its smallest internal units; the faculties of *law* and of the *fine arts*, the *university museum*, and the *center for Sami studies*.²⁴

The current strategic framework (2009-2013) refers to UiT's future ambition or *vision* as: “To become a national and international powerhouse for competence, growth and innovation across the high north.” (UiT 2009a: 3) UiT's institutional profile is composed of *three* core elements: (a) broad educational offerings (*breadth*), across traditional university education and professional training; (b) a research-based orientation, around a broad spectrum of disciplinary fields (*depth*); and, (c) active involvement with development or outreach-type of activities (UiT 2009a). The strategy explicitly refers to UiT as a “knowledge engine” (*Kunskapsmotor*) for

²⁰ In 1980, 72 percent of all student enrollments originated from the region (Stensaker and Nordgård 2001: 480), a figure that has remained relatively stable in the last three decades (Pinheiro 2012).

²¹ About 70 percent of all enrollments occurred at two institutions, themselves located in the largest urban areas in the region, the cities of Tromsø and Bodø. Females dominated regional enrollments with 64 percent of the total.

²² The strategic rationale for merging resulted from a number of factors; expected declines in the student population after 2015; increasing competition (regionally and nationally) for students, staff and funding; external expectations towards a more active role in the region; economies of scale; and the high expectations and strategic opportunities brought by the high-north strategy. UiT's Rector's original vision was that of a “University of the North”, but this idea was rejected by the university college at Bodø (see Pinheiro 2012). Finally, UiT's leadership structures pro-actively reacted to (took advantage of) future policy shifts in the direction of stronger collaboration (tighter-integration) amongst local higher education providers (NOU 2008).

²³ *Medicine* and *fishery* studies attract large numbers of highly qualified applicants from other parts of the country.

²⁴ Both the *Tromsø Museum* and the *Sami Center* are stand-alone, central units under the university board. Other stand-alone units include: the *Center for Women Studies*, *Continue Education* (U-vett), the *University Library*, and a recently created *Barents Institute*.

Northern Norway (ibid. p, 3). Active collaborations or partnerships across public and private sectors and the production of graduates with the relevant skills and competencies required by the regional economy are strongly emphasized. A particular focus is given to those sectors of the local economy directly associated with the provision of welfare services across health, education, culture, etc. When it comes to industrial growth and innovation, UiT's strategic platform highlights the importance of properly trained graduates spanning across key fields such as the *natural sciences* (energy and bio-tech), *technology* (new media and ICT), and *economics* (including entrepreneurship/new firm creation). A special mention is made to the internal willingness to collaborate with other knowledge-based institutions located in the region, as a strategic means of more efficiently addressing demands and expectations by various regional constituencies. The current operational plan refers to the university-colleges at Harstad and Finnmark as "natural partners" across the regional higher education system (UiT 2009b).²⁵

One of UiT's strategic priorities pertains to student recruitment (national and international levels), with an emphasis put on increasing the number of applicants from other parts of the country.²⁶ Given their strategic importance to the region, the professional fields of *medicine* and *dentistry* studies prioritize applicants from within the region, by resorting to a quota system. The rationale for this, as based in past experiences, is substantiated on the fact that students originated from Northern Norway are more likely to settle in the region upon graduation.²⁷ The strategic framework also pays special attention for the need to sharpen student selection and for improving UiT's learning environment.²⁸

Aspirations by the former university-college located in the industrial city of Bodø, the second largest urban area in the region, of becoming a fully-fledged university (effective since 2011) created a situation where UiT's geographic focus has gradually become "more northerly" oriented. The data suggest that youth from within Nordland county, particularly from its mid sections and southwards, tend to either enroll at the local university at Bodø or instead move further south to the cities of Trondheim or Oslo rather than commencing studies at UiT. As far as UiT's locus of

²⁵ Strategic collaborations include areas such as *market-research*, *institutional profiling* and *education provision* (UiO 2009b: 26-7). A future merger between the three institutions is seen by many as a possibility (ibid. p. 37).

²⁶ The official goal (2009-2013) is to increase the total number of new applicants across UiT by 10 percent, with a 4 percent rise on the number of students from outside the region (from 24 to 28 percent, about 900 applicants). The current plan does not prescribe priorities along study fields, but instead allows for flexibility on an annual basis (UiT 2009b: 26).

²⁷ Anecdotic evidence suggest that between 70-75 percent of all graduates find adequate employment (decide to settle permanently) within the region. There is evidence showing that amongst those (25-30 percent) who leave the region upon graduation many tend to come back at a later stage, e.g., to raise a family. The recent rise of a fast growing high-tech cluster across the region has triggered a renewed interest towards private sector employment by UiT's graduates, and is leading to 'brain gain' patterns with some highly educated and professionally experienced Northerners returning back home (either from the South or overseas) for employment.

²⁸ Between 2005 and 2009 the average number of students completing their undergraduate and graduate studies was the second lowest amongst all (8) Norwegian universities (DBH). In 2009 alone, 8.3 percent of all UiT students failed their examinations, a figure slightly above the national average of 7.5 percent (ibid.).

operation is concerned, accounts by internal actors (see Pinheiro 2012) reveal that, in recent years, (regional) *contraction* has been accompanied by the (international) *expansion* of formalized activities (see Kyvik 2009) in order to accommodate what is known within policy circles as the High North area (*Nordområdene*). This basically means that, in essence, UiT's regional mandate has gradually shifted from being exclusively focus on the regional or domestic level towards becoming increasingly international in scope. While referring to a recent strategic meeting between the Arctic Council and a number of regional stakeholders, a member of UiT's central administration or steering core (Clark 1998) stated: "It's a new Age. A new Era!"

In terms of UiT's distinct profile and *identity* (Clark 1972, 2009) and public image or market *brand* (Stensaker 2007), both domestic and overseas, one of the areas long considered to be strategic pertains to the presence of indigenous populations across Northern Norway. The strategic importance of the Sami agenda is clearly illustrated by the establishment, in 1990, of the *Center for Sami Studies*, an information and coordination unit with the responsibility for recruiting students with a Sami background and for acting as liaison with the local Sami community.²⁹ The unit (17 FTE staff, half of whom have an academic background) is responsible for the overall coordination of Sami-related research across the board (humanities, social sciences, law and medicine).

The strategic importance attributed to indigenous issues, by the central administration, is further reflected on two additional aspects. First, the fact that UiT has in place a separate strategic plan addressing the "Sami dimension", with direct involvement from a variety of internal and external constituencies. The plan (2000-2010) refers to the university's ambition of becoming an internationally recognized center for research on indigenous people, by integrating the Sami component across its core (teaching and research) activities (UiT 2002: 9). Second, the recent decision, by UiT's Board, to keep the Sami center as a coordinating unit rather than integrating it within the newly established academic structures, in spite of internal preferences by some academics at the center for a separate departmental unit and/or a fully-fledged research center. On aggregate, the data sets reveal that across the university the Sami dimension is not only used as a *strategic tool* for accessing additional resources (Oliver 1991) and/or for obtaining public *legitimacy* (Deephouse and Suchman 2008), but is also a matter of *collective pride* (Clark 1972) and the basis for forging a distinct *cultural identity* (Stensaker 2004).

The institutionalization of the regional mission

Over the years, the regional mission has played an important role when it comes to UiT's structural arrangements and primary activities (Arbo and Eskelinen 2003; Stensaker and Norgård 2001). As far as *curriculum structures* are concerned, regional imperatives permeate a vast number of study fields and disciplinary specializations, as shown in table 1. The balance between *local* (relevance) and *global* (excellence) aspects (Perry and May 2006) is enhanced, *inter alia*, by the fact that a considerable

²⁹ The Sami population is spread across northern- Sweden, Norway, Finland and Russia (the Kola Peninsula). UiT has the leading responsibility (national mandate) for Sami higher education and research in Norway.

number of study units/programs addressing a topic of regional relevance (e.g. Sami history/culture, law of the sea and the Arctic, Arctic biology, etc.) are taught in English. International dimensions are an important aspect of UiT's strategic framework (UiT 2009a), not only from the perspective of foreign audiences but also as a means of enhancing the global profile of domestic audiences.³⁰ Of a total of 22 international (English-taught) master degree programs being offered, about a third cover aspects directly associated with the region (Northern Norway and/or the larger High North area). Examples include but are not limited to, new inter-disciplinary graduate programs on indigenous studies, telemedicine or e-health, public health, business creation and entrepreneurship, technology and safety (off shore/energy industries), etc.

Table 1: Regular study courses with a regional dimension, per faculty

Academic Unit	Study Course (undergraduate/graduate levels)
Humanities, Social Sciences and Education	Northern archeology; Russian language/literature; Russian Culture (post-1985); Soviet history; Finish literature; History of Russia-Norway Relations; Sami language/literature; Sami history/culture*; Multi-lingualism (Northern focus); Methodology in indigenous studies; Institutional dimension of global change in the Arctic*
Natural Sciences and Technology	Northern populations and ecosystems*; Marine bio-prospecting; Arctic biology*; Production and growth in polar areas*; Arctic marine ecosystems*; Earth observation from satellites*; Drilling and the production of oil and gas*; Marine geo-hazards*; Telemedicine and e-health*; Civil aviation
Law	Law of the Sea and the Arctic*; Indigenous people's rights*; Russian business law*
Biosciences, Fisheries and Economics	Marine organizational leadership; Entrepreneurialism and innovation*; Fisheries profiles (Barents sea case)*; Land use and agriculture in Arctic areas (Norwegian/*)
Health Sciences	Health issues in an indigenous perspective (Sami focus)*; Telemedicine and e-health*; Patients and the public as users of net health services*
Centre for Sami studies (coordinating unit)	Master in indigenous studies* (jointly offered in direct collaboration with other faculties)

³⁰ At the undergraduate level, close to 200 individual English-taught courses are offered on a regular basis.

According to internal accounts, the recent merger created new opportunities for curriculum innovation. One such area is the education of future teachers for the region. Starting in the fall of 2010, UiT was the first higher education provider in the entire country to offer an integrated (5-year) professional program in *educational sciences* leading to a master-level degree, as per the Bologna model (Kehm *et al.* 2009). The above program is a strategic (pro-active) effort by the university to address the future shortage of primary and secondary teachers across the region. Another area where regional considerations were taken into account is that of the newly established (3-year) bachelor program in *pilot education*, the first ever to be awarded by a Norwegian public higher education institution. Hosted by the new *Faculty of Natural Sciences and Technology*, the programme trains civil airline pilots to handle the particular challenging navigational conditions of the Arctic. At the graduate level, one example of curriculum innovations addressing regional imperatives is a newly established (fall 2010) 2-year international master program focusing on *security issues* (crisis management) within the High North. The latter degree is a direct response to the fast emerging energy sector (oil- exploration/transportation) across the region, an area of strategic importance in the context of the government's High North strategy (above).

In the realm of *research*, regional dimensions have (past) and still continue to play an increasingly important role. In the field of medical sciences a privileged focus (early 1970s) was given to long-term studies on heart-related (cardiovascular) diseases, a subject of high relevance to the region. Over the years, researchers based at the faculty of medicine undertook a total of ten population studies, some of which like the *Tromsø heart study* became internationally renowned, thus contributing to institutional capacity building (excellence) and global scientific recognition (prestige). This achievement is even more remarkable given that the bulk of such initiatives occurred in the absence of funding incentives by public agencies with academics being solely responsible for initiating activities and securing their long-term financial sustainability. External events (late 1990s) have also played a role, as is illustrated by supranational policy shifts focusing on the life and living conditions of indigenous people all over the world, a process which culminated with the establishment of a major research program dedicated to studying health in the Arctic region; an initiative run by the community-health institute (*samfunnsmedisin*) at the Faculty of Medicine.

Regional dimensions have also impacted on long-term research agendas across the fields of the natural- and the social- sciences, the humanities, and law. The unique variety of natural organisms present in the Arctic/Polar region has been the target of high level scientific inquiries involving researchers from the fields of geology, biology and chemistry. Within physics, UiT staff have benefited from, and taken full advantage of, their northern location whilst undertaking a series of high profile studies on the scientific phenomena known as *Aurora Borealis* or Northern lights. Across the social sciences (history, sociology, anthropology, and political science), there is a long tradition of "heavy" research efforts focusing on issues of regional relevance. Examples include, inter-disciplinary collaborations around topics such as migration patterns, security and naval issues, Norway-Russia relations, and Atlantic Ocean ownership rights.

More recently, regionally-centered research agendas have become the target of substantial policy attention (e.g. in the form of new funding instruments), as a direct result of Norway's strategic framework for the High North. Within UiT, two specific examples include; a new inter-disciplinary research project entitled "Creating the New North", shedding light on socio-cultural developments across the region during the middle ages, as well as ongoing research activities at the newly established Business School where, amongst other things, researchers are investigating topics such as service innovation and tourism in the High North and the rise of a knowledge-based Northern Norway. Across the humanities, the bulk of research activities in the last three decades have focused on gaining a better understanding of the various Northern languages and dialects. Finally, the law faculty has been instrumental in developing scientific knowledge on, and raising public awareness towards, the legal rights of indigenous people, both domestically and within a broader international context.

In addition to the adaptation of its core (teaching and research) activities to regional characteristics and dynamics, UiT has gone to great lengths to enlarge its 'extended developmental periphery' (Clark 1998). The latter includes a number of service-oriented units (often located off-campus) covering critical areas such as *life-long-learning* and *community service* (U-Vett), *applied research/consultancy* (Norut), *technology transfers* and *innovation* (TTO Nord and Norinnova), and *outreach* (Tromsø Museum).

Structurally speaking, the data reveal ongoing internal efforts across the board aimed at linking (tight-coupling) peripheral and core tasks and activities. A good example is the (two) recently created national *centers for research-based innovation* (SFI) based at UiT.³¹ Centered around the fast growing fields of *Telemedicine (TTL unit)* and *Marine Bioprospecting (MabCent unit)*, the core activities of the above units are intrinsically related to the geographic characteristics of the region (rural/remote districts and direct access to North sea) on the one hand, and the strategic research agenda of certain academic groups across the natural sciences, medicine, and ICT, on the other. In the realm of teaching, examples of structural linkages include the recent establishment of two international graduate (master-level) degree programs in the fields of *Indigenous Studies and Business Creation and Entrepreneurship*. The latter is closely tied with peripheral units dedicated to technology transfer and innovation and to ongoing national policy efforts aimed at establishing a vibrant regional innovation system across the region (Arbo and Eskelinen 2003; Nilsson 2006). As for *indigenous studies*, the above programme involves staff associated with a number of core (faculties of humanities, social sciences and education, and law) and peripheral (Sami centre) units.

The data also shed light on direct linkages between strategic research agendas at the unit level and peripheral activities geared towards the needs of regional actors. An example is the *Faculty of Humanities, Social Sciences and Education* where ongoing research efforts around indigenous languages are an important foundation for the provision of life-long-learning activities targeting non-traditional student audiences as

³¹ The national SFI (*Sentre for forskningsdrevet innovasjon*) scheme promotes innovation by supporting long-term research cooperation between R&D intensive companies and prominent research institutions.

well as external constituencies such as public sector agencies across the region.³² In a similar vein, customized graduate programs around security issues targeting the Norwegian military are built upon the direct involvement of staff at the department of political science with a number of thematically-related research inquiries within and beyond the scope of Northern Norway.

There are a number of internal linkages across sub-units and disciplinary domains. Historically speaking, interdisciplinary collaborations have ranked high in UiT's strategic agenda since this aspect was considered to be one of the cornerstones for achieving the goal of becoming a different type of university (Bull and Vorren 1998; Hjort 1973). In spite of a general tendency, over time, for retreating into traditional academic silos (see Stensaker and Norgård 2001), the data reveal that there are plenty of examples where collaboration across units and fields of specialization has been institutionalized.³³ This aspect is best illustrated by the various study-modules and research activities focusing on Sami-related topics (under the overall coordination of the center for Sami studies) involving a wide range of academic groups and disciplinary fields. Another compelling example of inter-faculty collaboration around teaching is that of the (3-year) undergraduate program in *Politics, Economics and Philosophy* jointly offered by the Faculty of the Humanities, Social sciences and Education, in direct collaboration with their academic peers from the Fishery College hosted by the Faculty of Marine Sciences, Fisheries and Economics.

In the realm of research, inter-faculty arrangements include joint projects involving humanists and social scientists around subject areas like "Arctic discourses" and "Northern architecture". Going forward, and as a direct result of the merger, the newly adopted organizational structure (fall 2009) based on fewer but larger faculties is expected to foster inter-disciplinary collaborations *within* and *across* sub-units. The importance attributed to the High North agenda, including access to additional financial resources, seems to have brought inter-disciplinary endeavors around teaching, research and third mission back to the forefront of UiT's strategic agenda both at the central and unit levels.

As far as the institutionalization of the regional mission is concerned (see Pinheiro 2012), it is worth referring to the criticality of resource and incentive structures across core and peripheral tasks. In spite of the presence of nation-wide policy instruments (e.g. VRI³⁴) geared towards increasing collaborations amongst regional actors in areas like knowledge transfers/innovation, the lack of incentive structures supporting third-stream activities targeting the region is seen by many, internal and external actors alike, as a major bottleneck. At the level of UiT's central administration, even though there is a general acknowledgement that small financial

³² Given the steady decline on the number of students/public funding and the high costs incurred (staff), the humanities have been particularly keen on being involved with non-core activities like continue education.

³³ *Institutionalisation* refers to the process via which rules and repertoires of standard operating procedures are established, supported by specific capabilities and resources both people and funds (Olsen 2007).

³⁴ VRI (*Virkemidler for Regional FoU og Innovasjon*), is the main national support mechanism for regional research and innovation. It aims at encouraging innovation, knowledge development and added value through regional cooperation and a strengthened R&D effort within (and for) Norway's regions.

incentives combined with external engagement are likely to have positive outcomes (for both the university and the region), the role of monetary rewards tends to be downplayed as such. At the unit level, some senior academics highlight that the real issue are not rewards, monetary or otherwise, per se. Instead, they shed light on the fact that regional actors such as industry and local government do not believe that UiT is capable of being a strong participant in the regional program.³⁵

Internal accounts shed light on inconsistencies with the respect to the strategic importance attributed to the regional mission. Whereas parts of the central steering core (Clark 1998), like its long-serving and charismatic Rector, refer to the need for engaging with regional stakeholders across the board, UiT's administrative cadre is seen by many as creating structural barriers resulting from internal rules and regulations thought to constrain effective regional engagement. An example is human resources, where existing hiring and promotion strategies (central and unit levels) tend to focus on traditional criteria like scientific productivity with no individual incentives for external engagement. Overall, there is strong evidence suggesting that existing arrangements both at the *macro* (funding instruments) and *meso* (university structures, rules, rewards, etc.) levels are *not* conducive of creating the adequate conditions for the active involvement of the 'academic heartland' (Clark 1998) in regionally-related activities. Although outreach (*formidling*) has, since the 2003/4 Quality Reform, become an official mandate for all domestic higher education providers (MoE 2005), there is no indication, as of yet, of ongoing efforts aimed at assessing and/or rewarding such types of activities neither at the level of the central government (Ministry of Education and Research) nor across the university sub-sector as a whole.

Notwithstanding the above developments, the data reveal a number of positive trends. At the regional level, the increasing public awareness with respect to "the social value of science" has, in the past few years, triggered substantial financial support by local authorities. Under a government-led regional development program entitled *RDA (regional differensiert arbeidsgiveravgift)*, the Faculty of Natural Sciences has recently received NOK 10 million from Troms county for the establishment of a research school in the area of remote sensing.³⁶ Across the social sciences there is evidence of research projects of a more applied nature that are being commissioned by local communities across the three northern counties. In spite of limitations (size, scope and resources), regional industry is also becoming more active in sponsoring research endeavors across the board. The field of the *natural sciences* (chemistry and geology) is a special beneficiary given the presence of a major global oil company in the region.

³⁵ University-industry linkages have improved considerably in recent years, but it has taken some time for the university to shake up its initial public image of an anti-capitalistic entity (Arbo and Eskelinen 2003). The *size* and *nature* of local (primary-sector based) industries and the lack of major industrial (knowledge-based) clusters in the region have also hampered developments.

³⁶ *RDA* is a regional policy instrument aimed at providing tax incentives to companies located further away from their consumer markets. In 2009, a total of NOK 200 million was allocated to such projects in the greater Tromsø area. Anecdotic accounts suggest that UiT academics are more interested in acquiring funds from prestigious institutions like the Research Council and the EU rather than from regional authorities.

Finally, the data show that the bulk of so-called “regional research”, i.e. scientific inquiries addressing a phenomenon of local significance, across UiT, both core and peripheral units, is largely funded by external parties. Key (research) units like the Centre for Community Medicine and the Fishery College rely heavily on third stream funds (open competition) emanating from national governmental agencies. In partnership with regional actors, UiT staff has started to take advantage of the various EU-run programs (structural and framework related) targeting peripheral regions across Northern Europe.³⁷ A major strategic area for UiT is that of the emerging industry of bio-technology or marine prospecting, accounting for about a third of all externally-funded research projects at the Fishery College. Going forward, the new funding opportunities brought by the High North strategy are expected to increase the strategic importance attributed to regionally-related research, on the one hand, and the critical access to third stream funding, on the other.

7. Conclusion

Knowledge structures have become an increasingly important element in the context of existing economic asymmetries across Europe’s regions as well as in the larger framework of national and international economic competitiveness. Such dynamics are clearly illustrated in the case of Norway’s High North strategy, which in itself represents a fundamental shift in regionalization processes and regional policy-making. As shown above, as a *policy unit*, the region is increasingly defined in transnational terms in light of the *national*, *international* and *supranational* circumstances in which it is embedded. A particular attention is given to the integration or coordination of the various elements composing the *regional system* (programme, actors, system-environment, etc.) as well as the horizontal and vertical relations amongst various policy layers; energy, security, environment, culture, science, etc.

Even though current developments point to the critical importance of aspects associated with the “new regionalism” regime (endogenous focus, holistic approach, global interdependence, etc.), the High North case underscores the fact that central planning or government policy, an aspect closely linked with older governance paradigms, continues to play a critical role. Contrary to what was the case in the past, current developments are characterized by the rise of cooperative arrangements (networks) amongst a number of social actors across public and private sectors of the economy and centered around knowledge structures. From the perspective of regional governance, Norway’s High North strategy is an example of a *hybrid* approach (see Gornitzka and Maassen 2000) combining elements of “old” (state driven), “new” (involvement of local actors), “post-modern” (focus on technology and innovation) and “international” (inter-governmental networks) types of regionalism. Of significant importance is the appearance of a new “action space” moving beyond the traditional focus attributed to sub-national structures and dynamics to encompass a much broader transnational context (High North). Having said that, the approach being followed is that of adding an additional *policy-layer* rather than substituting the sub-national

³⁷ Norway is not an official member of the EU, but it contributes financially to the European Research Council. In 2007, EU funds accounted for 5 percent of the total third-stream revenue at UiT.

dimension by the international sphere as such (see Gornitzka and Maassen 2011). In other words, from a regionalization point of view, *local* and *global* orientations are seen as complementary. A good example is the focus attributed to strategic cooperations, both domestic and international, amongst the various partners located within the High North area in the context of a highly competitive, global economic environment. Said differently, the new regionalization policy, framed around the “High North”, represents a strategic attempt within a distinct transnational setting to *cooperate* in order to *compete* on a global scale (Ritala *et al.* 2008).

Ongoing national and supranational developments around the “Europe of the regions” have identified higher education institutions, particularly research-intensive universities, as key actors of the regional programme. As the single largest comprehensive university in the region, UiT is seen by many, internal and external stakeholders alike, as the (domestic) *economic engine* for Northern Norway, on the one hand, and the defacto (transnational) *knowledge hub* for the High North area, on the other. Not only has the university taken pro-active steps to take advantage of macro-level events and external opportunities, e.g. by merging with its local college counterpart, but UiT has also played a critical role: (a) in the “local translation” (Czarniawska and Sevón 2005) of macro-level dynamics, by informing or educating various regional constituencies regarding new strategic opportunities; and, (b) in terms of the articulation and infusion of regional imperatives into national policy frameworks, through coalition-building and lobbying.

Moreover, UiT’s leadership structures (central and unit levels) have devised a set of new structural arrangements aimed at better integrating its primary activities (core and peripheral levels) and in linking or *bridging* those with external developments within and beyond its immediate geography. As far as UiT’s locus of operation is concerned, this case study demonstrates how the ‘third mission’ of regional development, albeit institutionalized, is continuously being *re-interpreted* (de-institutionalized) and *adapted* (re-institutionalized) in light of shifting environmental circumstances³⁸, as clearly illustrated by the processes of domestic *contraction* and transnational *expansion*.

When it comes to research implications, UiT’s case study provides fresh empirical evidence suggesting that, given the presence of a number of key pre-conditions or enabling factors (macro, meso and micro levels), comprehensive universities located in relatively remote and transitional regional economies are: (a) capable of undertaking a variety of roles or functions (Kerr 2001), some of which are at odds with one another (Castells 2001; Pinheiro *et al.* 2012); and, (b) willing to pro-actively address the needs and expectations of a vast range of local, national and international constituencies (Jongbloed *et al.* 2008). Finally, the case presented here further suggests that, as a fiduciary *institution*³⁹ (Olsen 2007), the university is capable

³⁸ *De-institutionalization* “implies that existing rules and practices, descriptions, explanations, and justifications, and resources and powers are becoming contested and possibly discontinued.” (Olsen 2010: 158) *Re-institutionalisation* “implies either retrogression or a transformation from one order into another, constituted on different normative and organisational principles.”(ibid.)

³⁹ Namely, “a relatively enduring collection of rules and organised practices, embedded in structures of meaning and resources that are relatively invariant in the face of turnover of individuals and relatively resilient to the idiosyncratic preferences and expectations of individuals and changing external circumstances.” (Olsen 2007: 27)

of undertaking the above mentioned roles without necessarily being *co-opted* (Selznick 1949) by external interests or agendas and/or suffer a loss of its sense of distinct organizational or *cultural identity* (Stensaker 2004).

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