

UNIVERSITIES' THIRD MISSION: GLOBAL DISCOURSES AND NATIONAL IMPERATIVES

Rómulo Pinheiro¹, University of Agder and Agderforskning, Norway

James Karlsen, University of Agder and Agderforskning, Norway

Jan Kohoutek, Center for Higher Education Studies and Charles University, Czech Republic

Mitchell Young, Charles University, Czech Republic

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Abstract

Universities are increasingly pressurized to contribute to the socio-economic development of their societies. This has led to increasing calls for stronger societal engagement around the third mission (TM). In this paper we contextualize developments surrounding TM by comparing policy approaches in Norway and the Czech Republic. Our analysis shows similarities as well as differences, and points to the importance of assessing TM developments in the light of wider policy dynamics and priorities.

Keywords: universities; third mission; regional development; governance; Norway; Czech Republic.

1. INTRODUCTION: THE ADVENT OF THE THIRD MISSION

In the last two decades, the advent of globalization combined with the rise of a knowledge-based economy has catapulted the university to the forefront of policy debates. At the turn of the century, and as part of the ambitious goal ('Lisbon Agenda') of making Europe the world's leading knowledge

¹ Corresponding author: romulo.m.pinheiro@uia.no

economy, universities were identified by supranational agencies like the EU Commission as central actors (Pinheiro, 2015). Following multiple “calls for action”, in the form of bold modernization agendas (Aghion et al., 2008), national governments across Europe embarked on a series of reform initiatives aimed at making universities more responsive to external dynamics, including the needs of various stakeholders (Maassen, 2009). The so-called ‘European paradox’ was often alluded to as an example of the lagging behind. European universities performed rather well (in comparative terms, e.g. USA) in terms of scientific production, but they fell short with respect to their linkages with society, including the productive sector or industry. What is more, regional economic asymmetries, both within and across countries, have widened in the last two decades (OECD, 2009). Given that knowledge in general (and knowledge spillovers in particular) has an important geographic dimension (Bathelt et al., 2004), and that fast growing industries tend to be concentrated in the vicinity of knowledge production organizations and vibrant knowledge/technological ecosystems (Saublens et al., 2016), policy makers (global, national and regional levels) tend to look at universities as critical pillars for advancing local economic development (OECD, 2007).

Despite an array of studies on the topic, there is conflicting evidence regarding the role of universities in fostering local economic development and innovation (OECD, 2007, Drucker and Goldstein, 2007, Feldman, 1994, Benneworth et al., 2009). There is, however, an emerging consensus with respect to the fact that the physical presence of universities in a given locality/region is a *necessary* but not a *sufficient* condition for economic development to occur (Feldman and Desrochers, 2003, Pinheiro et al., 2012). Thus, policy has gradually moved away from focusing on the establishment of universities in peripheral geographies or ‘thin’ regions (Pinheiro, 2012b) towards the recognition of the importance of the university both as a training ground for the transmission of critical skills and competencies and as knowledge producer. These developments take place within the context of a much broader regional knowledge ecosystem where the university is one of many relevant actors and where a variety of governance approaches are expected (Lester and Sotarauta, 2007).

The rise of a knowledge based economy and the importance attributed to global and regional competitiveness has led to a shift in the dominant policy logic associated with the role of the university in society/economy. A new state of affairs came to the fore which approached the university both as an *instrument* for reaching certain governmental goals (like regional development) and as a *service-provider* embedded in competitive markets (Maassen and Olsen, 2007). In other words, the traditional social compact (based on mutual trust) was gradually but steadily replaced by a new social contract substantiated on formal duties, negotiated deliverables (goals) and ex-post control (outcome-based measures), which, in turn, have led to mutual distrust amongst the parties involved (Maassen, 2014). The new policy logic is centered on two basic pillars or ‘regimes’: *externally* (state), on the importance attributed to control and accountability (Stensaker and Harvey, 2011); *internally*, within universities, as regards the role played by strategic science, as one of the many side effects of the transformation of universities into more complete organizations (Pineiro and Stensaker, 2014).

The redefined compact between university and the state, configured as a contractual linkage overseen by the state in the light of government policy strategies, was to be carried out through new governance arrangements (Paradeise et al., 2009). In this context, “new” stood for the different modes of coordinating individual actions or basic forms of social order (Enders, 2004); through networking, (quasi)markets, entrepreneurship, contracting out, and/or social activism. In HE, four fundamental new governance modes have been recognized, and which vary according to the degree of government intervention and the level of specification of the goals to be achieved, namely: hierarchies, in the form of the neo-Weberian state (NWS)²; steering at a distance; self-governance; and procedural (Capano, 2011, 1626). In reality, however, these stylized or ideal type governance modes usually entail the application by *replacement*, *layering*, *drift* and/or *conversion* (Howlett and Rayner, 2007) and are likely to overlap and combine, thus giving rise to governance mixes (ibid., 1639).

²NWS refers to traditional (Weberian) administrative systems that are in the process of modernization, yet retain distinctive public service qualities (Pollitt and Bouckaert, 2011).

Against this backdrop, the paper investigates policy measures geared towards the third mission, broadly defined here as the purposive efforts by university actors to address issues of relevance to society (for a more exhaustive discussion consult Kohoutek et al in this special issue), in the Czech Republic and Norway. Hence, the focus is on the systemic or macro level, with the article specifically aiming to:

- Map-out long-term processes affecting third mission policy designs and their enactment;
- Identify the underlying (new) governance arrangements with respect to policy logics and instruments;

In the following sections, we start by illuminating the research questions driving the paper and the hypotheses being tested. Following the exposition of the empirical findings for each of the two cases, we highlight and discuss similarities and differences. The paper concludes with an overview of the key findings and a critical reflection on its research and policy implications going forward.

2. RESEARCH QUESTIONS AND HYPOTHESIS

In the light of the aforementioned elements, the following research questions are addressed in this paper:

1. To what extent are systemic higher education policy efforts in Norway and the Czech Republic aligned with universities' third mission?
2. What are the similarities and differences in the policy approaches of the two countries?

Two hypotheses are to be tested, namely:

1. *In light of the new social compact and the prominence of new governance approaches that emphasize a cooperative approach among stakeholders, we expect to find parallel cooperation between sectorial policy areas when it comes to the universities' third mission.*

2. *Given the increasing policy emphasis put on aspects like excellence and socio-economic relevance (impact), we expect new governance arrangements to affect the ways in which the third mission of universities is conceived and operationalised (policies).*

3. METHODOLOGICAL APPROACH

The investigation of Norwegian and Czech policy discourses and designs regarding universities' third mission put forward in this paper is based on *process tracing* (PT), which falls under qualitative methodology approaches. PT entails examination of diagnostic pieces of evidence within temporarily and spatially bounded instances of a specific phenomenon that can contribute to supporting or refuting alternative explanatory hypotheses (Bennet, 2010). In so doing, PT relies on qualitative datasets (e.g. historical accounts, expert surveys, interviews, press accounts, etc.) that can be coded for testing hypotheses regarding the applicability of a model or theory of the decision process (Ford et al., 1989). As a methodological approach, PT is applicable both to within-case analysis and small-n case comparative designs (Kay and Baker, 2015).

In line with foregoing methodological foundations, our PT-centered investigation builds on a review of relevant literature sources centered on research publications, research reports, policy analyses and documents (laws, by-laws, strategies, annual reports) whose subject matter was the role and positioning of the state as regards sector wide dynamics and the establishment of an enabling environment for universities' third mission. Our analysis of policy documents spans a 60-year period (1950s-early 2010s), more than sufficient for investigating long-term policy change (Sabatier, 1993).

We have chosen these two national systems since they represent diverging points of departure within the broader European periphery. Norway is a rich (non-EU) country with a long history of HE expansion and focus on equity considerations, including paying close attention to regional economic development issues (Pineiro et al. 2016). As a system, Norwegian HE is gradually moving from a binary towards a unitary system with comprehensive universities as the key institutional template. In contrast, the Czech

Republic is a EU member state with a Communist historical legacy and a much less institutionalised HE policy, showing, among other things, a proclivity to top-down governing approaches and policy solutions (Harach et al., 1992). Comparing and contrasting policy developments across these two systems enables us to shed light on the diversity of policy mechanisms and approaches and the degree of convergence or lack thereof within the context of a common European HE space. Investigating how governments in both countries have approached universities' third missions (TM) illuminates the complexities associated with the challenges of institutionalising TM (from the top-down, i.e. systemic level) as a core university mission.

4. NATIONAL POLICY DEVELOPMENTS AND THIRD MISSION

4.1. The Czech Republic

Despite its growth over the last twenty years, research on Czech HE shows a lack of research attention into universities' third mission (for one or two exceptions see e.g. Brada and Hanzelková, 2015). This is in stark contrast with the expanding global literature on the theme in the last two decades (Kohoutek et al., 2017; this special issue). Hence, this section addresses these knowledge gaps and reviews systemic developments in the policy area of the TM of Czech universities in order to identify key issues and turning points for comparative analysis. The review covers both the Communist and post-Communist periods.

Under Communism (1948-1989), TM was a marginal policy issue. The universities were subordinate to the state, ruled by the Communist party. Such subordination entailed the curtailment of academic freedoms in pursuit of communist ideology through vertical hierarchies (Harach et al., 1992). Ideological and practical restraints on academic freedoms factored into restrictions in the transmission of knowledge and independent research. Socialist-governed universities were, thus, assigned the role of production of qualified workforce for the centralised economy, with the bulk of research efforts concentrated in the Czech Academy of Sciences. Engaging with wider society through civic-oriented activities was also

tightly controlled, resulting in rigidity, formalism (undertaking of only Party-approved actions) and the absence of freely and openly exercised civic-society undertakings (though some did take place in secrecy within underground movements and initiatives). Hence, as a result of the Communist ideological bias and party control cutting across teaching, research and social engagement, Czech universities were insulated and discouraged from TM-related activities, except for the provision of studies in some regions ‘to assure rights of the working class to higher education’.

After the watershed year of 1989, the TM was, to an extent, part of the national reform agenda linked to the policy logic associated with regional decentralisation of HE on equity-grounds (enhanced access). This was driven by the intention to locate HE institutions (HEIs) outside traditional territories: Prague, Brno, and Olomouc. It was carried out through the establishment of six new regional universities between 1991 and 1993 (Šebková, 2006). These were brought into existence by the expansion of self-standing faculties/institutes of pedagogy, either by merging them with other specialised units (engineering), or by establishing a completely new unit. Moreover, the early 1990s saw the burgeoning of new university faculties (from 74 to 105) to cater for the rising study demand and research expertise within the country’s regions (CHES, 2007).

Beneficial as such undertakings were for the socio-economic advancement of less developed Czech regions, they were not part of any system-level policy per se. Between 1990 and 1998, Czech HE decision-making was a mixture of learning-on-the-go, good will (partly due to some international assistance), and hastily adopted measures, as epitomised by the stipulations of the Act of 1990 (Hendrichová and Šebková, 1995). The latter centred on the re-establishment of academic rights and freedoms, including research, as well as the self-governance of HEIs and their societal status. Its significance for the TM policy area was limited to officially upholding the socio-cultural and research orientations as part and parcel of the democratic university mission. The HE Act of 1998 (still in effect) required public HEIs to establish boards of trustees, whose members were appointed by the Minister of Education, “with the view of associating representatives of public life, municipality as well as state administration” (Government, 1998: Article 14.1) with the university. In reality the boards of trustees

have limited power and tend to oversee university governance, including legal issues (estate, property transfers), without much active involvement in TM or strategic governance more generally (Šebková, 2006).

The 1990s saw no official ministerial policy formulated and promulgated, not least because the term ‘policy’ became discredited under the Communist period due to its associations with inefficiency, banality and logrolling. The first TM-related policy measures appeared in the early 2000s, in the 2000-2005 Long-term Ministerial plan (MEYS, 2000) and the 2001 White Paper (MEYS, 2001). They set out goals in teaching and graduate-related TM activities dealing with re-skilling academic staff, harmonization of curricula and labour market demands, and career counselling. They also referenced support for establishing regional centres of lifelong learning and the university of the third age. However, by only listing several priorities under the TM heading, neither document outlined any concept or analysis of what the TM should (not) encompass. Relatedly, the HE Reform Concept from 2004 analysed the issue of university-industry relations, identifying broad, official agreement on cooperation in curricular designs, internships, R&D activities (including spin offs and patenting), involvement of entrepreneurs in teaching, joint promotional events and the sharing of information. However, it found inconsistencies in the implementation of policy measures, thus recommending the creation of a standing ministerial committee for industry relations.

The 2004 analysis, once again, contained no specific recommendations as regards the TM concept and/or policy instruments to be adopted. This conceptual confusion was sustained in the policy strategies of the mid-2000s, but changed with the 2009 White Paper on Tertiary Education. The latter set out the TM as referring to: “general services HEIs provide to society, formed differently at different institutions by concrete regional, economic and political contexts.” (MEYS, 2009, 31) Referring to the triple helix concept (Etzkowitz, 2008), the 2009 White Paper put forward a clear orientation on commodifiable forms of TM, including but not limited to: R&D entrepreneurship, technology parks, transfer and innovations, strategic alliances and business incubators. Yet, due to its controversial nature and harsh

criticism from the academic community, it was shelved (though not primarily because of the TM positions it contained). Similar developments towards the commodification of outputs could be observed in the domain of HE research and development. The Evaluation Methodology, a point-based tool created a system for measuring and assigning points to all types of research output, was established in the mid-2000s and has been used to allocate funding since 2008 (see Young, 2014); however, the system has no specific provisions for TM. It is oriented towards the production of excellence and impact, and rewards research that is more international in both publication outlets and language. Furthermore, the Czech Republic displays very low levels of industry cooperation and investment in university research relative to other European countries (Arnold, 2011). Funding for HEIs from EU cohesion funds plays an important role. In 2006, the fund ‘Research and Development for Innovations’, led to the establishment of eight national centres of excellence and forty regional R&D centres, subsidized by 2 billion EUR (MEYS 2014).

Finally, policy documents issued in the early and mid-2010s (the Long-term plan for 2011-2015, Strategic framework for Czech HE, the Third role of Czech HEIs), did little to advance a coordinated, systemic approach towards TM. We found considerable levels of decoupling between policy intentions (aims) and actions (implementation), namely: (a) no systemic links with the objectives set up in the 2004 Reform Concept or the 2009 White Paper; and (b) repetition and layering of policy goals, e.g. around aspects like labour market employability, internships development, advancements in further education and formation exchange (platform set-up), that could be marked as “perennial policy priorities”. Equally problematic, there are no publicly available TM policy documents that contain any up-to-date synthesis of empirical evidence, nor is there clear conceptualisation, evaluation and policy recommendations of the TM Concept.

4.2. Norway

As a means of responding to the popular demands for access to HE, and partly as a result of the resistance of the established universities (Oslo and Bergen) to increasing enrollments, the Norwegian government

decided to establish a regional college system in the early 1970s. The rationale was threefold: to enhance local access; to prevent mass (youth) migration from peripheral areas into the core urban centers; and to stimulate regional economic development by providing the regions with a cadre of professionals for both the public and private sectors. Earlier inquiries suggest that, generally speaking, the university colleges have had a substantial impact on economic activity, innovation, and migration, yet with important inter-regional variations (Sæther et al., 2000). Policy-wise, this period marks a phase where regionalization policy converges with HE policy (Pineiro, 2014). In Norway, regions have played a prominent role in national policy making since the post-WWII period, with the historical situation marked by an increasing tension between the political and economic center of the country, Oslo, and the periphery, i.e. the regions.

In the late 1960s, following successful lobbying by regional politicians, the Norwegian parliament decided to establish a comprehensive university in the northernmost part of the country, in the city of Tromsø. The university was an explicit national policy instrument to promote regional economic development as Northern Norway lagged behind the rest of the country in a number of important socio-economic indicators (Pineiro, 2012a). According to many, together with the establishment of the regional college system, the decision to create a comprehensive university in Tromsø ranks amongst the two most important elements for the regionalization of HE dating back to the 1970s (Arbo and Eskelinen, 2003).

By the early 1990s, the regional college system had expanded and encompassed close to 100 institutions, serving a population of about 4.2 million inhabitants. This created substantial challenges for the Ministry of Education for steering the system, and thus a decision was made to simplify the system by enacting a series of forced mergers amongst the regional colleges as well as other existing high schools (a total of 98 institutions). The result was the establishment of 26 public university-colleges throughout the country, providing the backbone for a binary higher education system. The state colleges, as they came to be known, were largely first cycle teaching-only institutions and had a clear mandate for addressing the needs and expectations of regional stakeholders. When it came to knowledge production, regional

needs were, for the most part, taken on board by social science regional research institutes (most of them privately owned, but not-for-profit) that had been established across the country since the early 1970s. Their establishment, supported by the national government, was the result of intensive lobbying by regional politicians, who wished to lift the research (absorptive) capacity of their respective regions. In contrast to the established universities, the research institutes primarily undertook research of an applied nature, often in close collaboration with regional actors such as local government and/or industry. In other words, for the majority of Norway's regions, the public university colleges largely performed a teaching or training function with the independent research institutes being the primary local arenas for knowledge production and transfer.

By the late 1990s, changes in the regulative framework resulted in the establishment of a common legal act regulating universities and university colleges, which had previously been governed separately. Policy developments leading to the 2003 Quality Reform, the last major comprehensive reform across the sector, also enabled university colleges to apply for full university status upon the successful achievement of a set of preconditions or criteria (cf. Pinheiro, 2013). This, in turn, exacerbated the ongoing pressures (initiated in the mid-1990s) towards academic drift, with the university colleges increasingly copying structural and cultural features of the established universities. Following the 2003 reform, societal outreach became an official task for all HEIs across the country, and changes in the governance structures of institutions (Board level) strengthened the role of external actors in strategic matters.

In the mid-2000s, and following developments elsewhere regarding the attention paid to technology transfers and entrepreneurial behaviors amongst the population, the Norwegian government, through its main agencies (research council, Innovation Norway and SIVA/the industrial development and cooperation of Norway), initiated a program to stimulate regional innovation and entrepreneurship. A total of seven so called 'TTO (Technology Transfer Office)-regions', either with a broad or narrow technology focus, were established throughout the country. The majority of these were located in the vicinity of 'old' (research-intensive) universities, with only one in the proximity of a former university

college (Stavanger), largely due to the importance of off-shore gas and oil clusters in that region. The government financially supported the establishment of TTOs at public universities, with mixed results. To the best of our knowledge, few university colleges have well-functioning and vibrant TTO offices.

In 2007, the government established a 10-year research and innovation program (VRI) to promote greater regional collaboration between trade and industry, R&D institutions and the government authorities, and to foster close ties to other national and international networks and innovation mechanisms (e.g. the Arena program, Norwegian Centres of Expertise and the Regions of Knowledge initiative). Fundamental components of the VRI programme include: research activity, exchange of experience, learning, and cooperation across scientific, professional and administrative boundaries (RCN, 2004). Universities and regional research institutes are integral components, and the program has led to increasing interaction and strategic joint initiatives between these and other key local actors across the public and private sectors.

In 2010, a new research funding mechanism was established alongside the existing national system. It distributes funds to seven core 'research regions', introduced as part of a political reform to delegate power from national to regional authorities. The main objectives of the funds are to: strengthen research intended to increase and improve regional innovation and regional development; increase R&D efforts; improve research quality and competitiveness of the local R&D institutions; organise arenas for the sharing of knowledge and experiences; and establish cooperation with national and international programmes and activities. Needless to say, university colleges alongside the regional research institutes became major recipients, thus stimulating local research capacity.

In 2011, the government established a series of Centers for Research-based Innovation (SFI), with the aim of building up and strengthening Norwegian research groups that work in close collaboration with partners from industry and innovative public enterprises (RCN, 2016). A total of 35 centers have received funding as of today. The majority of the centers are hosted by the largest (sector-focus) national

research institutes, the ‘old’ universities, with only two based at a current (Ålesund) and former (Agder) university college.

Finally, in 2015 and for the first time ever, the government launched a long-term (2015-2024) strategy for research and HE (KD, 2014). The latter is centered on three main strategic goals: (a) to strengthen competitiveness and innovation capacity; (b) to solve major societal challenges, like climate change; and (c) to develop high-quality research groups. The strategy follows ongoing regional (Europe) and global policy developments focusing on world class excellence (Ramirez et al., 2016), yet it pays little attention to the role played by (and future of) mid- and low- tier HEIs (e.g. as regards the importance attributed to *relevance*), most of which are located in peripheral or ‘thin’ regions.

5. DISCUSSION

Our analysis reveals that policy developments within HE in light of universities’ TM (Table 1) differ considerably across the two countries. In Norway, the period 1950-1980 marked a general concern for regional development aspects, with the government establishing vocational institutions and supporting the creation of research institutes aimed at addressing the regions’ knowledge needs and profiles. This was followed (late 90s-early 2000s) by the development of policy instruments aimed at increasing the interaction between local HEIs and regional actors across the public and private sectors. More recently (mid-2000s), the establishment of a series of centres for applied innovation, some based at HEIs, attest to the importance given to regional development and innovation imperatives in light of triple-helix-type of arrangements. These arrangements, to a large degree, are based on the notion that HEIs play an important socio-economic role in the context of their surrounding regions (TM). In contrast, such policy efforts and consistency are lacking in the Czech case. That being said, and despite a general acknowledgement of the fact that HEIs play an important socio-economic role, both countries seem to have failed in clearly articulating universities’ TM, thus leading to ambiguities and inconsistencies as regards policy- design and implementation. Table 1 below provides a summary of the major differences between the two countries.

Table 1: Comparing historical developments

	Norway	Czech Republic
1950's	<ul style="list-style-type: none"> • Popular demands for access to higher education 	<ul style="list-style-type: none"> • Under communism (1950s-1980s) the university is a teaching institution and is insulated and discouraged from TM • 1989 fall of communism (watershed historical event)
1960's	<ul style="list-style-type: none"> • Tromsø University established 	
1970's	<ul style="list-style-type: none"> • Development of the regional college system • Social science regional research institutes begin to be established 	
1980's		
1990's	<ul style="list-style-type: none"> • First wave of forced mergers • Binary system of universities and university colleges • Common legal act regulating all HEIs 	<ul style="list-style-type: none"> • 1990 higher education act • 1991-1993 expansion of system, establishing of regional universities and new faculties • 1998 new higher education act (valid till present) • 1999 first international comparison of research
2000's	<ul style="list-style-type: none"> • 2003 reform act: social outreach becomes official task of HEIs • Creation of TTO-regions • 2007 VRI program established 	<ul style="list-style-type: none"> • 2001 first TM policy measures appear • 2004 Higher education reform concept paper • 2008 research reform act

		<ul style="list-style-type: none"> • 2009 white paper with TM policy oriented to economic vision
2010's	<ul style="list-style-type: none"> • 2010 new regionally based research funding mechanism • 2011 Centers for Research-based Innovation established • 2015 national long-term strategy for research and higher education 	<ul style="list-style-type: none"> • 2011 long term plan 2011-2015 • 2015 Strategic framework for Czech HE • 2015 Third role of Czech HEIs

Source: authors

Broadly speaking, one can clearly identify three critical phases - expansionist, consolidation, and differentiation - in the historical development of the two national HE systems. Norway began its reforms in the 1950s, at a time when the Czech Republic was under communist rule and the universities' TM was discouraged. Norwegian universities followed the Humboldtian model where teaching and research were tightly coupled, whereas in the Czech Republic universities were largely teaching-oriented institutions with research activities concentrated in the Academy of Science. It was not until the communist regime ended, in 1989, that we begin to see a pattern of expansion similar to what occurred in Norway in the early 1960s. Both countries engaged in an expansionist policy based on the decentralisation of HE provision in the form of newly established institutions. In Norway, a regional college system was established (building on existing high schools) along with a new comprehensive university (in the north of the country) which had an explicitly regional development mandate. In the Czech Republic there was not a stated reference to the economic mission of regional HEIs, but, like in Norway, there was a concerted effort to spread HE provision across the country by establishing new regional universities and faculties, alongside new private providers. In Norway, the expansionist phase (mid-1950s to early 1990s) was followed by one of consolidation, during which university colleges and other institutes were forced to merge. These mergers, however, did not have a regional rationale per se, and were largely intended to simplify national HE steering, thus suggesting the decline in importance of

TM-related aspects when compared to efficiency concerns. The consolidation phase in Norway has also been instrumental in bringing research into the more vocationally oriented university-colleges, aided by changes in the legal framework in the 1990s (one unified framework for both sectors). What is more, the establishment of regional research institutes in peripheral regions not only complemented the TM role played by the university colleges (centred on teaching), but, more importantly perhaps, led to enhancing the former's overall absorptive capacities. Similarly, in the Czech Republic, universities did not have a research mission prior to the early 90s. This is not to say that no research was undertaken by academics at those institutions (Šima and Pabian, 2013), but it was not part of their legal mandate or social mission. Stated differently, their knowledge- production and transfer capabilities, two critical aspects inherent to universities' TM, was largely constrained due to structural arrangements.

Finally, we see evidence of a third phase of attempted differentiation being pursued by policymakers. This phase is more driven by the research policy dimension and the quest for world class excellence. In Norway, this is visible with the enactment of a centre of excellence program alongside a long-term strategic plan focusing on the concentration of resources in selected units. In the Czech Republic this phenomena manifests itself around R&D funding schemes, that attempt to steer funding towards excellent research and (few) selected institutions. Although the mechanisms and instruments vary somewhat, the overall policy idea or logic is that of turning scientific publications into performance indicators which determine future funding allocations.

Two hypotheses were presented earlier in the paper. Regarding the first contention, namely, increasing cooperation across policy portfolios, we expected to find the emergence of a new hybrid policy domain encompassing both HE and regionalisation policy. In Norway, such a policy convergence occurred in the 1960s and 1970s, but has largely been de-coupled in the last forty years or so. More recently, attempts have been made to bring together these two policy spheres, exemplified by the division of the country into core regions for the distribution of research funding, in addition to the VRI program aimed at stimulating regional innovation (with HEIs play a key role) and the establishment of centres for applied innovation. That being said, the recent attention paid to world class excellence as part of the long-term plan for HE and research (which is largely about research) is likely to reinforce existing asymmetries

between old and new universities and university colleges on the one hand, and core and peripheral or 'thin' (low absorptive capacity) regions on the other. In this regard, the new policy direction for HE and research, substantiated on consolidation (fewer and large HEIs) and concentration (of funds), contrasts starkly with equity-related dimensions that continue to play a major role in Norway's regional policy. Turning to the Czech Republic, policy developments show few signs of sectorial integration, e.g. no linkages between HE and research policy and/or between HE and regional development policy. TM rarely appears in the policy documents and where it does, it is often in white- or concept- papers which have not been implemented (design-implementation gap). This gap is often not because of the TM components of the respective proposals as such, but due to other more controversial elements such as the introduction of tuition fees. Yet, the end result is that there is virtually no policy regulating the regional function of HEIs.

Turning now to the second hypothesis, in both countries we find that excellence holds a primary position in the current policy discourse, reflecting wider developments across Europe (Sørensen et al 2016). The emphasis on excellence can be traced to the early- and mid-2000s when the Norwegian and Czech points system for publication results and funding were established. Excellence in both countries is firmly rooted in the publication culture, i.e. the output of publications that are highly cited or published in high impact journals. Publication in the local language, be it Norwegian or Czech, is discouraged in this system, which also defines excellence as 'international'. The latter is tightly linked with the rise of university world rankings. This turn away from 'local interactiveness' hits the peripheral regions and smaller HEIs most hard, and thus has the potential for negatively affecting TM-related activities, including research of a more applied nature. In Norway, as alluded to earlier, the focus on excellence has been institutionalized via changes in the funding instruments to HEIs (performance-based), the centres of excellence scheme and the new long-term strategy.

In terms of relevance, there is a clear emphasis in both countries on economic relevance rather than social relevance. We find that the instruments and policy discourse heavily favour the former, with little mention of relevance that is altruistic or has only social value. Of course there is a connection between the social and the economic, but it is the later that takes precedence. In Norway this is seen through the

establishment of instruments that link HE and research with the corporate sector, such as TTO regions and the VRI programs. Even traditional social aspects like life-long learning are increasingly being approached by HEIs as a new source of external revenues. In the Czech Republic, what little evidence of TM that can be found in the policies has to do with economic issues, i.e. employment, university-industry cooperation, harmonization of higher education outputs with industry needs, etc. The one major exception to the economic orientation of TM programs is the so called ‘university of the third age’ which provides courses for older citizens, and which has been broadly implemented by universities (see Smidova et al., this issue). Otherwise, the third mission tools have not gotten past the 2009 white paper into law.

TM, in the form of the regional mission of HEIs, has thus rarely made it into national policy discourses except incidentally. We have not found evidence that a new policy area is emerging. Rather, we see the tension between the new orientation towards excellence and the regional mission becoming more pronounced. The policy expectation of relevance, on the one hand, has also taken something of a back seat to the drive for excellence, but where it does become realized in policy, there is a strong tendency for it to support existing strengths, rather than benefit the weaker peripheral regions. We have seen how both the TTOs established in the mid-2000s and the SFIs from 2011 have primarily been established at or in connection with the research universities and in that way have consolidated their strength rather than providing a boost for the regionally oriented university colleges. These trends have led the regional HEIs to strategically reorient themselves to the model of the research universities, which pulls them further from their regional character. A similar trend can be seen in the Czech Republic, where also a single law governs all types of HEIs. While this law does recognize two binary types (university and non-university), accreditation demands placed on both are similar and the financial and resource benefits accrue to the university type, thus encouraging all institutions to aspire to become universities. In this way both countries expose the difficulties of attempting to create differentiation of institutions within a single legal framework.

6. CONCLUSION

Global policy and academic discourses surrounding universities' role in society/economy more generally and within the frame of TM-related activities more specifically have only to a limited extent permeated policy frameworks and initiatives in both Norway and the Czech Republic.

In Norway, the TM came to the fore of the policy agenda during the 1960s and early 1970s when HE and regionalisation policy converged, resulting in the establishment of a regional university college system. Since then, however, policy efforts geared towards the active engagement of HEIs with their surrounding region have largely neglected the existing structural barriers and institutional arrangements, which, for the most part hinder rather than promote TM across the board. The dominant policy logic in the sector in recent years has been substantiated on *consolidation* (fewer and larger HEIs), *convergence* (toward a unitary model centered on research-intensive universities), and global *excellence* with limited attention being paid to local *engagement* and *relevance*. This seems to be aligned with global developments that can be characterised by their general lack of an articulate policy framework for creating an environment that enables HEIs to meaningfully and successfully engage with societal actors across the public and private sectors (Pinheiro et al., 2012, Benneworth, 2013).

Similarly, in the Czech Republic, and despite some attempts to address TM-related issues (graduates' employability, technology transfers, university of the third age, etc.) policy makers have only symbolically and rhetorically referred to HEIs' TM role, with little to be shown as far as implementation is concerned. The only exception can be found in the *systemic consolidation* for regional relevance carried out through the establishment of regional universities and some new faculties in the 1990s. Nonetheless, as is the case of Norway, the dominant policy logic in recent years has focused on economic rather than societal imperatives, with *research excellence* (national R&D methodology, R&D research centers) being prioritized at the expense of any sustainable mechanisms for fostering local relevance and regional impact.

Finally, the evidence presented in the paper has both methodological and conceptual implications for TM research in a wider sense. Methodologically, the application of process tracing (PT) has helped us identify that the TM policy area in the Czech Republic and Norway follows a common development logic substantiated in: a narrow system for measuring excellence; the lack of coordinated and concerted attention to the role of university regions; and the lack of an approach for the co-generation of knowledge between HEIs and regional actors. More specifically, PM analysis of TM developments reveals a pattern of non-systematic patching of agendas and layering of goals in the Czech Republic, where, in effect, the TM policy has been envisaged and endorsed in various strategic policy documents but never actually promulgated. The Norwegian situation has been marked by decoupling TM policy rhetoric from real-time policy actions and means, not least because of tensions between local relevance and increasingly preferable global excellence. As such, the Norwegian TM policy seems to have been sidestepped by a series of actions bearing some relevance to the issue, yet leaving the TM, as a self-standing policy, ill developed. Hence, whilst the Czech TM policy has been ill-patched, the Norwegian case shows some marks of policy non-design (Howlett and Mukherjee, 2014) and decoupling (Bastedo, 2007). Regarding new governance arrangements surrounding HE more generally and TM in particular, the approach in both countries seems to show more affinity to traditional organizational hierarchies (top-down policies) rather than procedural configurations of networking, contracting-out or entrepreneurial behavior. In this respect, the evidence from the Czech Republic and Norway may provide a research impetus worthy of further emulation.

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