



European embeddedness and the founding of Luxembourg's 21st century research university

Gangolf Braband & Justin J.W. Powell

To cite this article: Gangolf Braband & Justin J.W. Powell (2021): European embeddedness and the founding of Luxembourg's 21st century research university, European Journal of Higher Education, DOI: [10.1080/21568235.2021.1944251](https://doi.org/10.1080/21568235.2021.1944251)

To link to this article: <https://doi.org/10.1080/21568235.2021.1944251>



© 2021 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 29 Jun 2021.



Submit your article to this journal [↗](#)




View related articles [↗](#)



View Crossmark data [↗](#)

European embeddedness and the founding of Luxembourg's 21st century research university

Gangolf Braband and Justin J.W. Powell 

Department of Social Sciences, University of Luxembourg Esch–Belval, Luxembourg

ABSTRACT

At the heart of Western Europe and culturally embedded in the 'Greater Region,' Luxembourg for centuries sent its youth abroad for tertiary education, without its own national university. Evolving provisions of postsecondary education after 1945 followed construction of several teaching and research institutes that did not offer full-fledged tertiary education certification. With global higher education expansion and European developments providing a window of opportunity, the founding of the national flagship University of Luxembourg (uni.lu) in 2003 was a critical juncture, since leading to an extraordinary case of university institutionalization. Traditions were explicitly maintained, but reshaped, in the new university, with student mobility continuing to bolster the national elite's pan-European networks and internationalization. Reflecting its hyper-diversity and multilingual culture as well as porous national borders, Luxembourg's investments in higher education capacity-building, via a twenty-first century research university, have been thoroughly European. Today, Luxembourg has the highest proportion of workers with tertiary attainment and of internationally mobile students, testament to its expanded higher education provision and national policy change facilitated by global models and European norms.

ARTICLE HISTORY

Received 12 June 2021

Accepted 14 June 2021

KEYWORDS

higher education policy;
university; Luxembourg;
Europe; Bologna Process;
Lisbon Strategy

1. How Luxembourg responded to global models and European norms by expanding higher education

Over the post-WWII era, the world has experienced an extraordinary expansion of higher education that has facilitated the integration of societies and economies (Schofer, Ramirez, and Meyer 2021), leading to a global culture transformed by the university (Baker 2014). This development bypassed Luxembourg until the twenty-first century. The absence of a university constrained higher education attainment and knowledge production, with the Grand Duchy's postsecondary teaching limited to few disciplines and research capacity limited to several specialized public research organizations (Meyer 2009; Powell 2015). With the shift towards the 'knowledge

CONTACT Justin J.W. Powell  justin.powell@uni.lu  Department of Social Sciences, University of Luxembourg, 11 Porte des Sciences, L-4366 Esch–Belval, Luxembourg

© 2021 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

economy' (Powell and Snellman 2004) and Luxembourg's rising position in global financial markets, this seemed increasingly anomalous (Tarrach 2020). At the heart of Western Europe and culturally embedded in the Benelux and the 'Greater Region' of neighboring Belgium, France, and Germany, Luxembourg for centuries relied on outgoing student mobility for higher education; it also underinvested (and underinvests) in R&D (OECD 2016).

With a fast-growing population based heavily on immigration, Luxembourg is a cosmopolitan society of around 625,000, with about half of all residents not holding Luxembourgish citizenship. Culturally and linguistically, the country is hyper-diverse, highlighted by three national languages (Luxembourgish, German, and French) and the considerable, growing importance of English and Portuguese spoken by large minorities. Hosting one of the European Union's three capital cities, it is also among the most prosperous countries (with Europe's highest GDP per capita) (Statec 2020). As a small, yet highly-internationalized country experiencing tremendous demographic and economic growth, Luxembourg's higher education system only recently gained a national 'flagship' university, to stand out 'in terms of prestige, embodying the hopes of a nation' and expected to be 'globally engaged and competitive' (Klemenčič 2016, 191). Indeed, 'as a still young university, operating in the absence of an established national university tradition and with colleagues coming from an exceptionally wide range of national higher education systems' (Harmsen 2017, 13), the University of Luxembourg still strives to develop its own institutional culture and organizational processes; also to clarify its relationship to the nation-state.

Until this century, Luxembourgers seeking to complete a university degree traditionally did so abroad. There existed few incentives to expand domestic higher education. The situation shifted toward the end of the 1990s, especially, due to the diffusion of global models of the university, the construction of the European Higher Education Area (EHEA), and the exponential growth in research output driving scientific and technological development (Baker 2014; Baker and Powell forthcoming). As did other smaller wealthy states like Norway (Pinheiro 2013) and Qatar (Powell 2014), Luxembourg responded to ubiquitous global models by upgrading its postsecondary higher education organizations and simultaneously expanding research capacity and global visibility. As a small but influential nation-state, Luxembourg emulated the influential 'Humboldtian' research-oriented university model driving 'global mega-science' (Baker and Powell forthcoming), but also integrated elements of neighboring higher education and science systems (see Powell and Dusdal 2017). Reflecting Luxembourg's master narrative and belief in EU membership as a guarantee of its national independence (Péporté et al. 2010, 8), Europeanization processes like the Bologna Process and the European Commission's Lisbon Strategy, we argue, exerted considerable influence on Luxembourg's policymakers. Remarkably, Luxembourg's minister in charge of higher education, Erna Hennicot-Schoepges, signed the Bologna declaration in 1999, years prior to the founding of the University of Luxembourg (known by its web url brand identity: uni.lu) in 2003.

Recounted below, early attempts to establish a Luxembourgian university in the 19th and 20th centuries failed (Braband 2015); partly due to changes in rulership over the Grand Duchy and ever-shifting borders, including territorial losses. More importantly, the country developed a very strong study-abroad tradition greatly facilitated by the multilingualism of secondary school graduates and—increasingly over the decades—a

generous state system of scholarships and allowances to cover tuition and living costs abroad (see Kmiotek-Meier 2019). Close connections between students abroad and political, economic, and cultural elites at home via Luxembourg ‘student circles’ in university towns across Europe crafted a well-defined and closed circle of political and business leaders and influential cultural groups (Rohstock and Schreiber 2012). Given this long-standing, highly valued tradition of leaving Luxembourg for postsecondary education, external drivers for change would be necessary.

A founding member of the European Union, Luxembourg’s national borders are porous, its economy integrated within the ‘Greater Region’ of neighboring states, and its political and professional elites embedded in pan-European networks (Graf and Gardin 2018). Many of the nation-state’s leaders prioritized European socialization of the country’s youth over other benefits of a national university, including research. For decades, Luxembourg’s research system reflected not capacity-building through leading internationalized universities, such as in Belgium or the UK (Soysal and Baltaru 2021), but rather higher education and science policy strategies, as in Germany and France (Musselin 2021), that emphasize teaching in universities and R&D in the research sector (Powell and Dusdal 2017). The first EU (1984) Framework Program of research funding provided an important external impulse. Ultimately, however, its lasting effects on higher education were limited, especially due to the lack of connections between Luxembourg’s postsecondary organizations and universities in other EU member states. Without a full-fledged partner, further international developments triggered only incremental changes. Surprisingly, no public pressure counteracted this lack of political willingness to innovate. Higher education was simply not an issue of general concern, unlike in neighboring countries with centuries-old higher education and research systems tied in myriad ways to the nation-state (see Mitterle and Stock 2021, in this issue; Stevens and Gebre-Medhin 2016). Nevertheless, the Europeanization of higher education systems became increasingly important.

In the responsible ministry, several powerful political actors instrumentalized the tools provided by the Bologna Process and by the Lisbon Strategy (particularly the demand for increasing R&D investments), to raise awareness and counteract prevailing opposition. The aim: create a stronger institutional basis for publicly-funded research and worldwide talent recruitment by establishing a research-oriented university focused on graduate degree programs in selected fields (aligned to national needs). While keeping the study abroad tradition alive, such a university would expand higher education opportunities and attract talent from elsewhere. The university would serve primarily as a ‘hub’ (Stevens, Armstrong, and Arum 2008), simultaneously contributing to the ever-higher education level of the population—Luxembourg now has among the highest rates of tertiary attainment in Europe (Eurostat 2021)—and diversification of the country’s economy.

Ultimately, the goal of university establishment was successful, yet in a rather controversial manner, via a top-down process *par excellence*, characterized by a lack of transparency and few attempts to engage the wider society in debate. Against initial plans, existing postsecondary education organizations were incorporated, expanding the university’s undergraduate teaching dimension—originally thought of as a European graduate school—with a range of bachelor’s and even vocational and continuing education programs. The path departure was nevertheless remarkable: Within just a few years, a

national research-oriented university went from being a non-topic to a legal reality to among the most reputable young universities globally.

Here, we recount the political processes leading up to the founding of uni.lu—and the coming of age of the higher education and science system of Luxembourg. We reconstruct its varied European foundations, over the second half of the twentieth century to 2020, arguing that European embeddedness has been essential to the founding and institutionalization of this twenty-first century national research university.

This analysis rests on key documents and on 13 semi-structured interviews with stakeholders in Luxembourg from various political and academic backgrounds and one with a key international expert involved in the university's founding. While the parliamentary debates leading to uni.lu's founding have been analyzed elsewhere (see Kmietek-Meier, Karl, and Powell 2020), the scarcity of public documents emphasized the need for interviews with major stakeholders. Public policy documents are rare due to the national administration that, Harmsen and Högenauer note, is 'marked by relatively flat structures that privilege informality, personal contacts, and multitasking' (2020, 8). To capture the limited public discourse, we refer here to contrasting perspectives published in the journal *forum* and, retrospectively, those in the volume marking the tenth anniversary of uni.lu (Margue 2003) and former Rector Rolf Tarrach's personal account (2020) summarizing arguments *pro* and *contra*.

2. The European foundations of higher education in Luxembourg

Two distinctive features had long marked the higher education landscape in Luxembourg: the purposeful absence of a national university and the resulting necessity for Luxembourgers to study abroad. Initial attempts to establish a university in Luxembourg go back centuries and were of external nature (French Jesuits in one case and German academics in another). Both attempts failed due to resistance within the country (Zotz 2002, 3), based mainly on the argument that a university was too expensive for a small country like Luxembourg with its primarily agrarian economy, i.e. prior to the country's industrial development and later emergence as a world-leading financial center (and tax haven). With no full-fledged university in the country, the national elite oriented itself towards foreign universities to obtain their offspring's advanced education and degrees. The ensuing tradition developed its own dynamic and reinforced the rejection of proposals to establish a university—well into the period of increased prosperity and the global spread of models and norms relating to higher education participation and attainment (Baker 2014; Schofer, Ramirez, and Meyer 2021).

2.1. Study abroad tradition

For centuries, students have travelled to universities in different parts of Europe to maximize the benefits of their education. A small country like Luxembourg, only becoming independent in the nineteenth century, depended on this tradition of mobility: The Luxemburgish study abroad system established itself and became the natural expression of higher education aspirations in the modern state of Luxembourg (see Kmietek-Meier 2019).

This system was not only perceived as a way to save money, but was also, arguably reflecting more modern perceptions, considered to offer some genuine extra value as ‘it became an adopted general opinion that a stay at a foreign university would help to keep the country open to the mainstream of scientific ideas and technological advance embedded in the institutions of higher education in the neighboring countries’ (Pondelinger [sic!] 1999, 151).¹ In other words, studying abroad was considered to contribute to the economic and social well-being of Luxembourg by securing knowledge flows and by importing diverse stores of knowledge that could be combined and maximized in Luxembourg’s diverse and multilingual context (Rohstock 2010).

The system of studying abroad developed a certain complexity, based on an evolving system, which meant that many students would complete their first stage of post-secondary education in Luxembourg at the *Centre Universitaire* (from 1974) before continuing in a degree program abroad. Earning credit for those two years in Luxembourg was sometimes facilitated by cooperation agreements with universities abroad, reinforcing the student ties with their home country. Intergenerational elite formation is particularly visible via the Luxembourgish student associations, supported by the Luxembourgish state, that facilitated access to distinguished career paths in diverse fields at home (Kmiotek-Meier 2019; Rohstock and Schreiber 2012). The study abroad experience became an essential entrance qualification to the national elite—reflecting elite reproduction based on narrowly-defined criteria, including access to study abroad, religious and political orientation, certain professions and disciplines. As such, this exclusive study abroad tradition contributed to elite formation and social closure (Rohstock and Schreiber 2012, 2013). Simultaneously, this ensured that Luxembourg’s leaders in diverse fields could leverage linguistic competence and in-depth understanding of varying cultural and professional developments, especially at the nexus of the Francophone and Germanophone worlds.

2.2. Pan-European higher education developments

The environment within which the Luxembourgish system had established itself changed, associated with the emergence of the ‘school society’ (Baker 2014) and an increasingly knowledge-based economy. The advancement of economic principles guiding higher education policy brought quantitative expansion of student mobility. Policymaking was increasingly aligned with European deliberations, here mainly expressed in the Bologna Process and the Lisbon Strategy.

Bologna and Lisbon do not mark the beginning of higher education’s European dimension, of course, as its roots originated with travelling students of centuries ago. Also, the emerging European Union (EU), already in the Treaty of Rome of 1957 (Article 128), made reference to general principles of vocational training standardization, influencing subsequent decisions by the Council of the European Economic Community (EEC) (Walter 2007). Ultimately, the implications remained limited (Balzer and Rusconi 2007), but the treaty indicated that skill formation was growing beyond national borders, facilitating mobility; a process that gradually accelerated in both vocational training and higher education (Powell, Bernhard, and Graf 2012). To avoid the question of competence, the European Commission focused on *voluntary* cooperation, leading in 1987 to the Erasmus student exchange program (among the most popular EU programs); a

reason the Bologna Process has been strongly associated with student mobility (Powell and Finger 2013).

Another substantial step in European higher education was initiated by the Council of Europe and UNESCO when in 1997 the Lisbon convention ‘On the Recognition of Qualifications concerning Higher Education in the European Region’ was introduced. Subsequently, the document became the most important legal instrument for the recognition of higher education degrees (Reichert and Tauch 2003, 9) and actually the only legally binding instrument of the ensuing Bologna Process.

A year after the Lisbon convention, the Sorbonne declaration was signed on 25 May 1998 by the (higher) education ministers of the EU’s larger countries (France, Great Britain, Italy, and Germany), with its central demand to create a European Higher Education Area (EHEA). The other EU member states (amongst them Luxembourg) were not particularly pleased by this move (Friedrich 2005, 115), yet Europeanization quickly accelerated. The resulting Bologna declaration signed in 1999 by twenty-nine countries (including, at that time, all 15 EU member-states) made visible processes long underway.

Bologna has harmonized national higher education systems and promoted the EHEA, redefining the boundaries of Europe (Kushnir 2016). The resulting process has been characterized by regular ministerial follow-up conferences and by geographical expansion, now extending well beyond EU members and geographical Europe. Hence, ultimately, Bologna is not a process of the EU, unlike the Lisbon Strategy (also: Lisbon Agenda or Lisbon Process) that dates back to March 2000 when the European Council, at a special meeting, announced its often-quoted ambition ‘to become the most competitive and dynamic knowledge-based economy in the world’ (European Council 2000). And while the dimension of knowledge production was central to the strategy, the focus on higher education was limited; instead, it revolved around research with the explicit goal of spending three percent of a nation’s GDP on R&D to bolster innovation.² Such fundamental European developments could be expected to affect the Luxemburgish higher education system, but how?

2.3. European consequence: the foundation of the University of Luxembourg

The impact of the dynamic European higher education environment first arose in the research sector. In 1963, the OECD identified a rudimentary scientific environment in Luxembourg (Meyer 2009, 456). Even in 1980, exact amounts of public spending on scientific research remained a mystery—even to the government itself (Meyer 2008, 363). Research was simply considered to be a private sector responsibility, especially of multinational companies operating in Luxembourg.³ This perception began to change when the EU released its first research framework program (1984–1987), leading to a Luxembourg framework law for research (1987). This law aimed to organize public research and ensure cooperation between public and private sectors to serve Luxembourg’s economic development (Meyer 2009, 456f.). The law’s most visible effect was the establishment of public research institutes, given applied research mandates in the broad areas of science and technology, health sciences, and socio-economic research (OECD 2016). Though hardly visible, it paved the way for political discussions regarding the establishment of a university.⁴

The Maastricht Treaty (1992) and the completion of the European Single Market (1993) also raised higher education issues, with the question of what form a university in Luxembourg could have debated in the journal *forum*.⁵ Yet, no fundamental policy change took place as the then Minister of Education repeated traditional arguments against, citing both expense and the advantages of higher education abroad (Fischbach 1992).

In 1996, the first framework law for higher education was introduced, but aimed at existing postsecondary organizations⁶ and not a future university. The status quo remained intact, later reinforced by the Prime Minister Jean-Claude Juncker (Christian Social People's Party, CSV), who expressed his 'fanatical' opposition to the founding of a university in Luxembourg, stemming from a 'fear of the organizational blindness' of young Luxembourgers who 'have not studied at least four years in a foreign country'. Reflecting on Luxembourg's elite formation, Juncker further expressed his fear of 'academic incest' that would, he argued, be fostered in a local university (Juncker 1997, 13; translation). Such strong statements set the tone: the status quo persisted, even after the national elections of 1999. The conservative CSV remained the strongest party, but its coalition partner changed from the Luxembourg Socialist Workers' Party (LSAP) to the Liberals (DP). A university was an issue neither in the election campaign nor in the coalition agreement.⁷ And yet, the election did mark a turning point; a critical juncture even.

In 1999, Erna Hennicot-Schoepges (CSV), expanding her previous portfolio of Education Ministry, took over a rearranged Ministry of Culture, Higher Education and Research. The name of the ministry—in the absence of a university—caused some bemusement amongst commentators (*forum* 1999, 5). In light of the Bologna declaration signing two months prior to the new government's formation, the ministerial rearrangement might be perceived as an indication of changing perceptions of key issues in higher education. Furthermore, the launch a few months later of the Lisbon Strategy, with its demand to invest more into public research, provided another substantial external European impetus to reshape Luxembourg's higher education and research landscape.

In May 2000, a white paper on higher education was published by the new ministry (Ministère de la Culture, de l'Enseignement Supérieur et de la Recherche 2000). Less than two years later, it presented its plan for the establishment of a university to stakeholders and representatives of the press at a seminar. While one might have expected this to mark the beginning of an intensive public discussion process, the project went ahead quietly, reflecting general societal disinterest. An ensuing non-transparent, top-down approach bypassed broader public debates, thereby reflecting typical executive powers to act—with the parliament lacking 'mandating powers' (Harmsen and Högenauer 2020, 10). The parliamentary debates about the university were brief and mostly focused on migration and labor market issues (see Kmiotek-Meier, Karl, and Powell 2020). The law establishing uni.lu came into effect in October 2003, supported by the major opposition party LSAP, due to the conviction and engagement of its former president Ben Fayot.⁸

Within just over four years, the non-topic 'national university in Luxembourg' had become a legal reality. The university's foundation fundamentally changed the nature of higher education in Luxembourg. Yet, the developments and dynamics of

policymaking, we will argue, emphasize continuities as well as change. This continuity is best expressed by the European embeddedness of Luxembourg higher education.

Luxembourg appeared to be quite content with its initial approach to HE. For many decades, global models and developments seemed to have little effect. Establishing a university was therefore no easy task, even if it had been an issue already before the ministry made public its plan to establish a University of Luxembourg. Within a small arena of individuals and directly concerned elite interest groups, it was always a controversial topic (see Tarrach 2020). For the rest of the country, it was not controversial at all. The general public was simply indifferent. One senior administrator summarized the situation:

There were moments where individuals or small groups promoted the idea [of establishing a university] but there was no discourse. They were only a few people and they were not people that had the opportunity to eventually realize this somehow. A real civic discourse regarding the university did not exist before 1999.⁹

While the country's parliamentarians did debate the law to establish the university (Kmiotek-Meier, Karl, and Powell 2020), the limited public discourse on this transformation of higher education failed to embrace the broader (civic) society of Luxembourg. The country had accommodated itself to the existing system and appreciated its advantages, while largely unaware of disadvantages. In the absence of major challenges, there seemed no identifiable (domestic) need to change the status quo. In such an environment, the potential advocates of a university—few and far between—had little impact, despite some of the traditional arguments against a university losing their persuasive power. The argument of expense, for example, was branded by one actor—in light of Luxembourg's transformation into one of the world's most prosperous financial centers—as 'rubbish' (*Schwachsinn*) (Wehenkel 1992, 25). And the Luxemburgish writer Roger Manderscheid similarly emphasized that:

Why is there still no university in Luxembourg? All around along our borders, universities have sprung up, why not here? Do we still not want intellectual unrest in our country? It seems so. The financial unrest does not bother us. And yet we are a place from the picture-book to learn and study European languages. We will get a Museum of Contemporary Art here. A good thing. Why not a university? We could attract the best international professors to Luxembourg and this way we could turn Luxembourg into an intellectual centre, a counterweight to the bombastic centre of banks (quoted in forum 1992, 37; translation).

Yet, those comments appeared to be like voices in the wilderness. The financial aspect, however, did develop another, rather different connotation when the study abroad tradition was characterized in the country itself as 'parasitism' (*Schmarotzertum*), reflecting a perceived reputation in the surrounding countries that Luxembourg was 'free riding' without offering something similar in exchange (Fischbach 1992; Wehenkel 1992, 24).¹⁰ This perception was reinforced by more general labor market conditions. As Graf and Gardin (2018, 1) argue, 'Luxembourg exhibits strong transnational traits within its skills regime... Employers in Luxembourg extensively recruit skilled workers at the European and global levels but also ... heavily rely on the distinct skills sets of cross-border commuters from the neighboring regions of Belgium, France and Germany (the Greater Region).' Political reactions to evolving economic and labor

market realities, though, were rather modest, resulting only in gradual adjustments to a limited national higher education policy.¹¹

The situation reflected a basic line of division between those who saw the advantages of a university (research output, employment opportunities, attracting global business, etc.) on the one hand, and those who emphasized the advantage of the nation's youth studying abroad, which they feared would be endangered by a national university in the country, on the other. Yet, as the latter group's fears were partially unfounded due to a constitutional provision (Article 23) that protects the right to study where one wishes but also makes student mobility compulsory,¹² other factors also played a role. For example, objections were raised against the *Centre Universitaire* serving as the nucleus of a future university, due to leadership problems and staff-qualification issues. Concerns were raised regarding the 'Luxembourg model' in which everybody knows each other and provides each other with jobs (see Juncker's 'academic incest' argument).¹³ However, such skepticism can also be found amongst the supporters of a university (see Theis 1992); thus, attention must be given to aspects that are less clearly articulated by university opponents.

A university in Luxembourg was thought to risk negatively affecting established student and national elite networks, as it would have created a disruption to the existing system by adding another route to elite reproduction, with unforeseeable consequences. Furthermore, it was also clear that a university, even if created to satisfy strong economic interests and meet labor market demands, would provide a new arena for critical reflections and debate about Luxemburgish society, politics, and identity.¹⁴ Both aspects—a new route to status reproduction and a new arena for critical societal and political discourse—had the potential to threaten the traditional pattern of elite formation and dominant power relations in the country, thereby questioning the role and the status of existing elites.

University opponents and proponents cannot be reduced to a single-issue conflict (see Tarrach 2020). The situation was more complex, producing various fields of conflict characterized by varying interests—making it difficult to identify clear boundaries. Among those few united in the goal of establishing a university, there were different views about the future university's design, reflecting diverse experiences in foreign higher education systems but also different expectations about the mission of a university. Generally, the topic was considered 'diffuse', not 'black and white'.¹⁵ Further, prevailing indifference among large segments of society resulted in a corresponding lack of interest on the political stage. Recognizing these conditions, one senior academic figure described it as a 'miracle' that the University was established at all.¹⁶

In this context, official EU politics did not explicitly feature prominently in the run-up to the foundation of the University. Bologna and Lisbon appeared not to have structured the higher education discourse as such. While these pan-European processes certainly opened a window of opportunity, they remained largely invisible to the general public. This was a predominately national debate amongst a small circle of 'insiders'. Even in retrospect and with a better understanding of the Bologna Process, for example, those experts interviewed drew a rather diffuse picture of the influence of internationalization in the founding process of uni.lu. Most did not see Bologna or Lisbon as dominant forces in its establishment, while recognizing general global influences and the rising (awareness of the) knowledge-based economy. Analysis of selected newspaper articles of this period

reflects even greater absence of the international aspect,¹⁷ again underlining the dominance of national viewpoints. Such interpretation, however, demands some qualification.

Even if largely implicit in key actors' statements, we argue that a country so central to the EU politically, culturally, and geographically as well as intertwined to global industries (finance, steel) had tacitly considered the effects of internationalization on higher education and its implications. After all, the study abroad tradition itself exemplifies this: Luxembourg's national networks are simultaneously European, even global, reflecting a hyper-diverse society marked by migration and mobility (Powell 2014, 125). Internationalization, even amongst national experts, is inherently present in the discourse. Two actors—a senior politician and a senior academic administrator—exemplify this when they recognize the impact of internationalization on the university's founding process, albeit without identifying a specific source or pressure.¹⁸ This may be explained by Luxembourg culture, as two senior academics claimed, in which European politics does not enter public debates but is simply accepted as 'given' in the context.¹⁹ Thus, it wasn't necessary to refer to European developments to legitimize establishing a university, especially given limited public attention. The tactic chosen was of *not* publicly discussing a university: To avoid exposing it to lengthy public debates and thus risk path-dependent maintenance of the study abroad option. The result was the top-down process, which drew condemnation, ranging from criticism of the 'insane speed' (*Wahnsinnstempo*) of the developments²⁰ to exposing the lack of communication as public debate was 'avoided like the plague' (Pauly 2004, 6; translation).

A retired politician from the then opposition party (LSAP) supports this critique, while also reflecting further Luxembourgish peculiarities (that cannot be elaborated here), such as acknowledging the power of the Minister to push through projects within a legislative period of five years and that, in the case of uni.lu, the rather radical approach may well have been necessary to reach the goal in time.²¹ This emphasizes the need to focus on key actors in the process to understand uni.lu's establishment, strongly embedded within European experiences and networks.

There were only three people in the Ministry of Higher Education—the Minister herself and two civil servants—who initiated and, rather controversially, controlled the founding process. These crucial actors, with educational experiences outside Luxembourg, acquired European mindsets, developed significant European networks, and understood contemporary developments in Luxembourg's neighboring countries and beyond. The Minister in charge exemplifies this in her own biography from an early age.

Erna Hennicot-Schoepges was born in 1941 in Luxembourg to a father originally from Germany and a great-grandfather who had moved to Luxembourg from France. Already as a child she realized 'that there was more than just one country' (Hamen 2020). Her career as child-pianist led her to travel to Brussels weekly at the age of 14, followed at a later stage by musical studies in Paris, Salzburg, and Luxembourg. Decades later, as a distinguished cultural entrepreneur engaged as a creative and powerful politician at all levels of government, she contributed to the transformation of the Grand Duchy. In 1979, she became a member of Luxembourg's Parliament (CSV) and ten years later its first female president. Before becoming a minister, she had been a member of the Council of Europe. After her ministerial career, she became a member of the European Cultural Parliament and Vice President of the Institute for Cultural Diplomacy (ICD) in

Berlin (Hamen 2020), highlighting her continued engagement in promoting intercultural dialogue throughout Europe.²²

Keeping such a biography in mind, it is not surprising that European developments changed the perception of the higher education field in Luxembourg amongst the top policymakers. Not only was the Minister present at the signing of the Sorbonne declaration in 1998 but, of particular importance, Hennicot-Schoepges signed the Bologna declaration in 1999 in advance of Luxembourg having a national university. As such, the Sorbonne declaration had already made ministerial actors aware, while the Bologna conference a year later was the ‘crucial point’ in changing perceptions.²³ The Minister herself further confirmed that the Lisbon Strategy, with its goal of investing greater shares of GDP into R&D, in particular provided her with a powerful instrument to legitimate an unprecedented investment in HE.²⁴ European influences did not stop there, as they shifted the Minister’s perception of the position and the role of a future university in the country. As she later pointed out recalling the university’s founding: ‘The link between teaching, research and industry, notably the new information technologies, was becoming the new paradigm for the future of the European economy’ (Hennicot-Schoepges 2013, 37).

The importance of Europe as a reference point is arguably even more visible in the case of the most senior ministerial official involved in the creation of the university, Germain Dondelinger, a teacher of English who had studied in England.²⁵ He played a crucial, sometimes disputed, role in the creation of uni.lu and in its subsequent development throughout the first decade.²⁶ He was simultaneously a central player in the development of the Bologna Process, variously described by colleagues in the process as a ‘respected player’,²⁷ a ‘great impulse giver’,²⁸ and one of ‘5–6 people who were pushing the process very hard’.²⁹ This indicates that both processes, the European and the national, not only complemented but rather reinforced each other. In his contribution to the publication marking uni.lu’s tenth anniversary, he not only acknowledges ‘the international developments that had largely shaped the creation of the University’ (Dondelinger 2013, 42; see contributions in Margue 2003) but also explains the impact of Lisbon and the ‘knowledge society’ and the ensuing paradigm shift in Luxembourg:

Luxembourg could not be absent from this movement [created by the Lisbon Strategy]. Yet, this meant a change of paradigm for the country. Traditionally, Luxembourg had owed its economic success to having succeeded in commercialising products made elsewhere, or in deriving a commercial advantage from exercising rights based on the sovereignty of the country. In other words, Luxembourg had always been strong in the applied dimension. ... But, if Luxembourg wanted to play an active role in the emergence of the knowledge society, it could not be absent from the production of knowledge. It is precisely the university that is, by predilection, the place in which knowledge is created. It is ideally a place of creation, holder and vector of knowledge. Social transformations and the future projects of the European Union put the possibility of a university in Luxembourg back on the agenda (Dondelinger 2013, 44; translation Robert Harmsen).

Clearly, European developments changed the perception of higher education’s potential in Luxembourg. It changed the perspectives held by key ministerial actors, who, even more crucially, were receptive to those developments, actively participating in them. They used Europe to push for uni.lu’s founding in a higher education environment still predominately focused on national issues. Hennicot-Schoepges saw Europe,

especially with the Bologna Process and the Lisbon Strategy, as providing her with a window of opportunity to establish Luxembourg's national university. She feared that if this could not be secured before the next national election in 2004, the institution would not materialize. The time pressure and the concerns about a public discussion that, in her perception, could undermine the whole project³⁰ led to the above characterized top-down process.

Finally, the Ministry did force the project through. Hennicot-Schoepges had accomplished her goal of establishing the university before the next election. Even a critical academic involved in the process acknowledges her role and states that no one else but her could have achieved this.³¹ 'Without her, there would have been no University in 2003' (Tarrach 2020, 21).

3. Discussion and conclusion: continuities and a critical juncture

Luxembourg has fundamentally transformed its higher education system. We have argued that Luxembourg's cultural, economic, and political embeddedness in Europe, along with a window of opportunity for key actors and external influence provided by global models and European norms, offers the key to understanding this transformation.

Luxembourg is quintessentially European: socially, spatially, ideationally, normatively, and politically. European influence and networks represent key continuities in national higher education development while simultaneously providing the impetus for the critical juncture that led to path departure in higher education institutionalization: from study abroad and limited postsecondary offerings to a knowledge-producing national flagship research university. Europe is the driving force identifiable in the evolution of Luxembourg's expanding higher education provision. However, the driving mechanisms and effects emphasize various dimensions of Europe that mattered.

A few neighboring countries provided most learning opportunities for Luxembourgian youth, educating its elite via outgoing mobility and the well-established study abroad system (Kmiotek-Meier 2019). Universities throughout Europe facilitated not only spatial mobility but also provided a crucial source of intercultural exchange and European socialization and networking. This elaborate student mobility system established itself and came to be taken for granted in a country that experienced generally increasing European embeddedness—as highlighted by its role hosting a capital city of an expanding, increasingly influential European Union.

These conditions provided the background for Luxembourgish higher education policies and structures characterized mainly by the generous study-abroad system and the exceptional absence of a research university. If Europe—in the form of diverse universities that provided education to Luxembourgish students for decades—was the stable foundation, Europe also was at the heart of the disruptive force that led to a critical juncture in Luxembourg's higher education development—the establishment of its national research university in the twenty-first century.

The pan-European Bologna Process and the EU's Lisbon Strategy exposed Luxembourg's 'free riding' policy and invalidated its economic arguments against heightened investments in higher education and research as its neighbors increased their R&D expenditures (Powell and Dusdal 2017). Bologna simultaneously instituted a cross-national policy learning and policy transfer dimension (Powell, Bernhard, and Graf

2012) and provided further sources of European standardization, such as when Luxembourgish representatives participated—without already having a university—in the discussions leading to the European Higher Education Area (EHEA). To abstain from Bologna, even at the early stages of the process, when its impact was far from clear, was not an option for an EU cheerleader like Luxembourg. Indeed, it would have been the only EU member country to not participate, excluded from negotiations that affected the institutional conditions of its own system of tertiary higher education attainment, reliant on the goodwill and openness of universities in other countries. And yet, despite this seemingly overwhelming pressure created by European policy developments, evident in the Lisbon Strategy, that represent the wider advancement of the ‘knowledge economy,’ our analysis also shows that there still was one driver missing. To disrupt the path-dependent, gradual change and bring about a critical juncture leading to the current shape of Luxembourg higher education required key policy actors with both the vision and the tenacity to overcome considerable resistance, both ideological and pecuniary, against the national university project. These actors were products of the study abroad tradition and its socialization process. Equipped with a European mindset and pan-European networks, they were receptive to ongoing developments in European higher education.

From this perspective, the continuous impact of Europe in the development of higher education in Luxembourg expresses itself in three distinct dimensions: Europe, in the form of universities, provided (1) elite education and (2) socialized Luxembourgian elites as European. Then, more proximately, Europe (3) provided the (policy) models to stimulate and justify the founding of a national research university, albeit under the national condition of integrating the traditional study abroad system. This characterization of the dimensions underlines two aspects: First, the importance of the role of (political) elites in the development regarding the establishment of the university, especially in the absence of wider societal involvement. Second, the perception that founding the university was considered a substantial change in Grand Ducal higher education policy, while not doing so—given newer policy developments on the European level—would have manifested an unprecedented break with its self-conscious Europeanness.

Before the founding of the university, issues of higher education were of limited relevance to societal, economic, and political discussions. Today, in contrast, uni.lu has gained fundamental importance for the future of Luxembourg’s growing knowledge-based economy and hyper-diverse, multilingual, and highly-educated society. Indeed, an organization that was initially disputed, coming to life only through the considerable engagement of a few key actors rather than relying on bottom-up societal processes, needs support to advance beyond simply meeting national needs or being fully legitimated politically. The university requires enhanced support to attain greater organizational autonomy, moving beyond the stage of being a political instrument of the nation-state that funds it to that of a more autonomous scientific organization governed by universal academic principles. Uni.lu has managed to rapidly establish an international reputation and it has advanced Luxembourg’s internationalization in (higher) education and science as well as economy and society. Yet, this success, in the absence of a pre-existing national consensus, poses a challenge, as the extraordinary diversity of its members, world-leading level of international research collaborations, and the accommodation of diverse higher education cultures on its campi affect the university’s

internal organization, limited autonomy, and recent changes in its governance (see Harmsen and Powell 2018).

However small, no country wishing to become a ‘knowledge society’ can arguably do so without an (inter)national research university. As many larger countries in Europe struggle to maintain their state-funded universities in the post-Bologna era, especially given negative consequences of the Covid-19 pandemic, Luxembourg has grasped a window of opportunity. The university’s international courses of study and scientific networks provide contemporary strength, but this only gradually facilitates the organization’s greater societal and cultural integration within Luxembourg. Without placing the university more centrally in the country’s politics, culture, and identity, while enhancing its organizational autonomy, uni.lu remains an elite prestige project vulnerable to the vagaries of policymakers among the small and closed national elite. Luxembourg’s embeddedness in Europe will continue to bolster its investment in higher education and science capacity-building. Today, Luxembourg has the highest proportion of internationally mobile students globally and among the highest tertiary attainment rates, testament to its expanded higher education provision and national policy change facilitated by global models and Europeanization.

Notes

1. The name of the author should be ‘Dondelinger’, a civil servant and a key figure in the uni.lu’s establishment (see below).
2. The Lisbon strategy, though, was struggling to achieve its objectives and was replaced in 2010 by a new 10-year agenda of the European Commission: “Europe 2020”. The targets of Europe 2020, however, remained almost unchanged. Today, Luxembourg is less than halfway there, with a “research intensity” (ratio of GERD to GDP) of 1.3 percent in 2015 (see OECD 2016).
3. Interview 16.06.2014.
4. Interviews 02.06.2014, 16.06.2014.
5. The monthly journal *forum* provides a crucial platform for intellectual and civic debate in Luxembourg. The December 1992 issue 140 “Quelle université pour le Luxembourg” was almost entirely devoted to perspectives on a national university.
6. This included the *Centre Universitaire* and following organizations: ISERP – *Institiut Supérieur d’Etudes et de Recherches Pédagogiques* (teacher training), IST – *Institut Supérieur de Technologie* (engineering) and IEES – *Institut d’Etudes Educatives et Sociales* (training of social workers) (see Powell 2015).
7. Interviews 26.05.2014 & 16.06.2014.
8. Interview 15.12.2020. Fayot was actually mentioned in various interviews as one of very few university ‘promoters’.
9. Interview 03.11.2015; translation.
10. Also pointed out in an interview (12.06.2014) and in the Parliamentary debate of the University law on 17 July 2003.
11. The period of study in Luxembourg, for example, was expanded from initially one to two years (Fischbach 1992).
12. The political discourse within the Parliament has been comprehensively analyzed, showing how crucial the tradition of study abroad was taken to be—and built into the new University—as a semester of study abroad is compulsory at BA level (Kmiotek-Meier, Karl, and Powell 2020). The constitutionally-guaranteed freedom to study where one wishes is analogous to Germany’s, which secures the right to (higher) education (Mitterle and Stock 2021, in this issue); however, Luxembourg also requires student mobility at the BA level, leading eventually to the world’s highest rates of international student mobility.

13. Interview 04.06.2014; see also Greisen 2003.
14. This has been pointed out in various interviews; see also Kmec (2013) and Hirsch (2013).
15. Interview 12.06.2014.
16. Interview 09.04.2014.
17. There is one major exception: In the main parliamentary debate on the adoption of the new university law on 17 July 2003, multiple references were made to the Bologna Process. This, though, should not be misread. It was the first and only debate that took place in the chamber related to the establishment of the university at a time when the deal was basically done (see Chambre des Députés 2003; Kmietek-Meier, Karl, and Powell 2020).
18. Interviews: 05.06.2014; 02.06.2014.
19. Interviews 14.10.2015 (1); 14.10.2015 (2); email exchange with one interviewee (28.01.2015).
20. Interview 02.06.2014.
21. Interview 05.06.2014. Indeed, integrating the study abroad tradition (see above) with a mandatory semester abroad within uni.lu's undergraduate programs (that serve mainly graduates of Luxembourg secondary schools) helped to placate the parliamentary opponents (Kmietek-Meier, Karl, and Powell 2020).
22. For more details of Erna Hennicot-Schoepges' life and career, see <http://ehennicotschoepges.lu>.
23. Interview 03.11.2015.
24. Interview 16.06.2014. At the same time, as Hennicot-Schoepges further explained, Lisbon allowed her to overcome the Prime Minister's opposition. Juncker himself emphasized in 2001 the importance of a new higher education policy for Luxembourg (Juncker 2001; Doerner 2013), changing his mind because of the Lisbon Strategy (Interview 12.03.2014).
25. This paragraph benefits from a previous research project (Euro Uni, 2010–12; project leader: Robert Harmsen) and related interviews focusing on Bologna as an instance of Europeanization.
26. Despite ministers changing over this period, Dondelinger remained a constant factor in higher education policy and was the person responsible for the university in the ministry until his early retirement in 2014 (see Tarrach 2020).
27. Interview 01.05.2011
28. Interview 18.11.2011
29. Interview 03.05.2011
30. Interview 16.06.2014
31. Interview 26.04.2014. It is worth noting that Hennicot-Schoepges lost her job as Minister after the next national election in 2004, reinforcing the perception of a “window of opportunity” (see Braband 2015).

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This research was supported by the University of Luxembourg for the project ‘Globalisation and Higher Education Policy: International Governance, Domestic Reforms and the Challenges of the Public University’ (2013–2016; project leader: Robert Harmsen).

Acknowledgments

For essential discussions on the evolution of higher education in Luxembourg, we thank Robert Harmsen. For helpful comments on earlier drafts, we thank Emilia Kmietek-Meier and this

special issue's contributors and editors, especially Manja Klemenčič, David Labaree, Alexander Mitterle, Christine Musselin, Ekaterina Shibanova, Yasemin Soysal, and Mitchell Stevens.

Notes on contributors

Dr *Gangolf Braband* was a Research Fellow at the Institute of Political Science at the University of Luxembourg. His research interests include comparative federalism and national and international issues of higher education policy.

Dr *Justin J. W. Powell* is Professor of Sociology of Education and Head of the Institute of Education & Society at the University of Luxembourg. His comparative institutional analyses examine special and inclusive education, vocational training and higher education, and global science and research policy.

ORCID

Gangolf Braband  0000-0003-4461-1703

Justin J. W. Powell  <http://orcid.org/0000-0002-6567-6189>

References

- Baker, D. P. 2014. *The Schooled Society: The Educational Transformation of Global Culture*. Stanford, CA: Stanford University Press.
- Baker, D. P., and J. J. W. Powell. *forthcoming*. *Global Mega-Science: Universities Scientize the World*. Stanford, CA: Stanford University Press.
- Balzer, C., and A. Rusconi. 2007. "From the European Commission to the Member States and Back." In *New Arenas of Education Governance*, edited by K. Martens, A. Rusconi, and K. Leuze, 57–75. Basingstoke: PalgraveMacmillan.
- Braband, G. 2015. "Ein günstiges Zeitfenster: Die Gründung der Universität Luxemburg und der Einfluss internationaler Entwicklungen im Hochschulbereich." *Die Hochschule* 24 (1): 144–156.
- Chambre des Députés. 2003. *Compte rendu des séances publiques N° 22 – Session ordinaire 2002-2003*. Luxembourg: Chambre des Députés.
- Doerner, M. 2013. "10 Jahre Uni Luxemburg – Wege in die Wissensgesellschaft." *wowx* No. 1233, 19 September 2013.
- Dondelinger, G. 2013. "Une université pour le Luxembourg." In *Université du Luxembourg*, edited by M. Margue, 42–51. Luxembourg: Université du Luxembourg.
- European Council. 2000. Presidency Conclusions. Lisbon European Council 23 and 24 March 2000. Accessed 02 June 2021. http://www.europarl.europa.eu/summits/lis1_en.htm.
- Eurostat. 2021. Tertiary education statistics 2018. Accessed 02 June 2021. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Tertiary_education_statistics.
- Fischbach, M. 1992. "Ein Gespräch mit Unterrichtsminister Marc Fischbach über die Hochschulpolitik in Luxemburg." *Luxemburger Wort*.
- Forum. 1992. "Auszuch aus dem roger manderscheid sénger ried bei der iwwerreechung vum batty-weber-präis." *Forum* 140: 37.
- Forum. 1999. "Endliche eine nationale Hochschulpolitik?" *Forum* 195: 5–11.
- Friedrich, H. 2005. "Der Bologna-Prozess nach Bergen." *Die Hochschule* 14 (2): 114–135.
- Graf, L., and M. Gardin. 2018. "Transnational Skills Development in Post-industrial Knowledge Economies: The Case of Luxembourg and the Greater Region." *Journal of Education and Work* 31 (1): 1–15. doi:10.1080/13639080.2017.1408954.
- Greisen, F. 2003. "Eine Universität für Luxemburg. Kurze Stellungnahme zum vorliegenden Gesetz." *Forum* 228: 10.
- Hamen, S. 2020. "Erna Hennicot-Schoepges". Transcript of translation of interview. *Arbeit an Europa*. Accessed 02 June 2021. <https://arbeitaneuropa.com/transcripts/erna-hennicot-schoepges/>.

- Harmsen, R. 2017. "A 'Flagship University' for Luxembourg?" *d'Lëtzebuurger Land* 64 (33): 12–13.
- Harmsen, R., and A. Högenauer. 2020. "Luxembourg and the European Union." In *Oxford Research Encyclopedia of Politics*. Oxford: Oxford University Press.
- Harmsen, R., and J. J. W. Powell. 2018. "Higher Education Systems and, Institutions, Luxembourg." In *Encyclopedia of International Higher Education Systems and Institutions*, edited by Jung Cheol Shin, and Pedro Nuno Teixeira. Heidelberg: Springer.
- Hennicot-Schoepges, E. 2013. "Génèse d'un défi." In *Université du Luxembourg, 2003–2013*, edited by M. Margue, 34–41. Luxembourg: Université du Luxembourg.
- Hirsch, M. 2013. "Plädoyer für mehr gesellschaftliche Relevanz. Sozialwissenschaften an der Uni Luxemburg." *Forum* 333: 36–39.
- Juncker, J. 1997. "Mit Sozialklauseln die Globalisierung abfedern." *Forum* 175: 5–15.
- Juncker, J. 2001. "Discours sur l'état de la nation." *Forum* 208: 15.
- Klemenčič, M. 2016. "'Epilogue: Reflections on a New Flagship University'." In *The New Flagship University*, edited by J. A. Douglass, 191–197. Basingstoke: PalgraveMacmillan.
- Kmec, S. 2013. "Wissenschaftliche Freiheit ausgestellt. Ein Nachwort zur Ausstellung iLux und einer Diskussion, die nicht stattgefunden hat." *Forum* 333: 30–32.
- Kmiotek-Meier, E. 2019. *Auslandsstudium an der Schwelle zum Erwachsenwerden. Ausgestaltung und Bedeutung des Auslandsaufenthaltes unter Credit- und Degree-Studierenden aus Luxemburg*. PhD dissertation, University of Luxembourg.
- Kmiotek-Meier, E., U. Karl, and J. J. W. Powell. 2020. "Designing the (Most) Mobile University: The Centrality of International Student Mobility in Luxembourg's Higher Education Policy Discourse." *Higher Education Policy* 33 (1): 21–44.
- Kushnir, I. 2016. "The Role of the Bologna Process in Defining Europe." *European Educational Research Journal* 15 (6): 664–675.
- Margue, M., ed. 2003. *Université du Luxembourg 2003–2013*. Luxembourg: University of Luxembourg.
- Meyer, M. P. 2008. "The Dynamics of Science in a Small Country: The Case of Luxembourg." *Science and Public Policy* 35 (5): 361–371.
- Meyer, M. P. 2009. "Creativity and its Contexts: The Emergence, Institutionalisation and Professionalisation of Science and Culture in Luxembourg." *European Review of History* 16 (4): 453–476.
- Ministère de la Culture, de l'Enseignement Supérieur et de la Recherche. 2000. *Le Livre Blanc de l'Enseignement Supérieur au Grand-Duché de Luxembourg*. Luxembourg: Ministère de la Culture, de l'Enseignement Supérieur et de la Recherche.
- Mitterle, A., and M. Stock. 2021, in this issue. "Higher Education Expansion and Academization in German Higher Education."
- Musselin, C. 2021, in this issue. "Bringing Universities Back In: From a Republic of Facultés to a Republic of Universities".
- OECD. 2016. *OECD Review of Innovation Policy: Luxembourg 2016*. Paris: OECD.
- Pauly, M. 2004. "uni.lu nach dem Sommergewitter." *Forum* 239: 6–10.
- Péporté, P., S. Kmec, B. Majerus, and M. Margue. 2010. *Inventing Luxembourg: Representations of the Past, Space and Language from the Nineteenth to the Twenty-First Century*. Leiden: Brill.
- Pinheiro, R. 2013. "Bridging the Local with the Global: Building a New University on the Fringes of Europe." *Tertiary Education and Management* 19 (2): 144–160.
- Pondelinger [sic!], G. 1999. "Country Report: ELA – Luxembourg." *European Journal for Education Law and Policy* 3 (2): 151–153.
- Powell, J. J. W. 2014. "International National Universities: Migration and Mobility in Luxembourg and Qatar." In *Internationalisation of Higher Education and Global Mobility*, edited by B. Streitwieser, 119–133. Oxford: Symposium Books.
- Powell, J. J. W. 2015. "Hochschulbildung und Forschung in Luxemburg." In *Bildungsbericht Luxemburg 2015. Vol. 2*, edited by Ministère de l'Éducation nationale de l'Enfance et de la Jeunesse & Université du Luxembourg, 109–118. Luxembourg: MENJE & UL.
- Powell, J. J. W., N. Bernhard, and L. Graf. 2012. "The Emergent European Model in Skill Formation." *Sociology of Education* 85 (3): 240–258.

- Powell, J. J. W., and J. Dusdal. 2017. "Science Production in Germany, France, Belgium, and Luxembourg: Comparing the Contributions of Research Universities and Institutes to Science, Technology, Engineering, Mathematics, and Health." *Minerva* 55: 413–434.
- Powell, J. J. W., and C. Finger. 2013. "The Bologna Process's Model of Mobility in Europe: The Relationship of its Spatial and Social Dimensions." *European Educational Research Journal* 12 (2): 270–285.
- Powell, W. W., and K. Snellman. 2004. "The Knowledge Economy." *Annual Review of Sociology* 30: 199–220. doi:10.1146/annurev.soc.29.010202.100037.
- Reichert, S., and C. Tauch. 2003. *Trends 2003. Fortschritte auf dem Weg zum Europäischen Hochschulraum. Summary*. Brussels: EUA.
- Rohstock, A. 2010. "Wider die Gleichmacherei! Luxemburgs langer Weg zur Universität 1848–2003." *Forum* 301: 43–46.
- Rohstock, A., and C. Schreiber. 2012. "Netzwerk der Elite. Luxemburger Studentenzirkel als Instrumente der Inklusion und Exklusion." *Forum* 314: 33–35.
- Rohstock, A., and C. Schreiber. 2013. "The Grand Duchy on the Grand Tour: A Historical Study of Student Migration in Luxembourg." *Paedagogica Historica* 49 (2): 174–193.
- Schofer, E., F. O. Ramirez, and J. W. Meyer. 2021. "The Societal Consequences of Higher Education." *Sociology of Education* 94 (1): 1–19. doi:10.1177/0038040720942912.
- Soysal, Y., and R. Baltaru. 2021, in this issue. "University as the Producer of Knowledge, and Economic and Societal Value: UK Higher Education System, 1950–2020".
- STATEC. 2020. STATEC press release, 01-04-2020: 626,000 inhabitants as of January 1, 2020. <https://statistiques.public.lu/en/news/population/population/2020/04/20200401/index.html>.
- Stevens, M. L., E. Armstrong, and R. Arum. 2008. "Sieve, Incubator, Temple, Hub: Empirical and Theoretical Advances in the Sociology of Higher Education." *Annual Review of Sociology* 34: 127–151.
- Stevens, M. L., and B. Gebre-Medhin. 2016. "Association, Service, Market: Higher Education in American Political Development." *Annual Review of Sociology* 42: 121–142.
- Tarrach, R. 2020. *What a Wonderful Time*. Luxembourg: Maison Moderne.
- Theis, R. 1992. "Eine Universität in Luxembourg?" *Forum* 144: 35–37.
- Walter, T. 2007. "Der Bologna-Prozess im Kontext der europäischen Hochschulpolitik." *Die Hochschule* 16 (2): 10–36.
- Wehenkel, C. 1992. "Für eine polizentrische Universität. Ein Gespräch mit Claude Wehenkel." *Forum* 140: 22–25.
- Zotz, V. 2002. "Université de Luxembourg: Wohin geht die Reise?" *Forum* 215: 3–9.