Universities and Civic Engagement

In this chapter, we explore the role of universities in promoting public engagement for research and innovation. Universities have been socially embedded in their local communities since the 11th century, when the first venerable universities in Europe were established. Social embeddedness is not a novelty for most of the 'old' universities in Europe. Unfortunately, the literature on public engagement and universities emphasizes the new democratizing vocation of the academic community, previously closed in ivory towers and currently encouraged to bring citizens in and interact more intensely with the public as we discussed in Chapter Three of this book. Universities have always been institutions of civicness and local democracy, firmly and profoundly engrained in local culture and society, active in the promotion of civic responsibilities and values among students, academics and the public. Having said that, even the most established and locally embedded universities will need to adapt now to the transformative changes related to new innovation systems, marketization pressures and the economic demands of industry to have a greater voice (Acemoglu, 2002). They will also need to align new societal and economic demands with the internal restructuring of their governance and operational management and systems (Agasisti and Catalano, 2006; Agasisti et al, 2017).

Young citizens in Europe are increasingly concerned about the 'crisis' of higher education, with reference to the marketization of universities, rising tuition fees, for-profit research contracts, and

other changes to the traditional university systems (Mattei et al, 2023). Traditional universities, inspired by the ivory-tower culture, and Humboldtian ideas, have lost the plot while they face severe challenges associated with funding cuts, globalization, the entry of new private players, and other exogenous processes that are difficult to manage as autonomous and independent actors. One of the key features of the university defined by von Humboldt was independence from political authority, and autonomy of researchers from political and economic demands. Intellectual curiosity was the major driver of scientific endeavour. The public debate in many European national contexts centres around the question: 'What is a university for in the 21st century?' This reveals the state of uncertainty and public anxiety affecting the higher education debate in Europe, particularly among students and young adults. The crisis of the traditional public university is associated with budgetary squeezes, and the emergence and adoption of market forces, such as the introduction of students' fees replacing direct public funding in some countries and increased use of for-profit initiatives (Holmwood, 2016), and new output-based funding mechanisms (European Commission, 2010).

Citizens have good reasons to be increasingly concerned about the future 'crisis' of higher education (Carr, 2012), not least because it has been announced vigorously with the influential publication by Michael Barber and his colleagues, entitled *An Avalanche is Coming: Higher Education and the Revolution Ahead* (Barber et al, 2013). According to the gloomy scenarios presented in their book, traditional universities are doomed to disappear. Michael Barber predicted the death of the traditional university and the inevitable fall in the earnings premium associated with first degrees. The arrival of the 'for-profit' university triggered moral panics in many European countries around the question: 'What is a public university for in the 21st century?' (Collini, 2012).

Universities are moving away from both the medieval 'republic of scholars' of the 11th and 12th centuries, when the universities of Paris, Oxford and others were established, and the mass university model of the 1960s and 1970s towards the corporate enterprise model that implies the adoption of internal leadership reflecting the interests of major stakeholders to the extent that the academic voice is one among several (Bok, 2003; Bleiklie and Michelsen,

2013; Bleiklie, 2018). Consequently, dependency on complex network of stakeholders and demands on the higher education sector for economic and societal impact have gained unprecedented importance on the government agenda. A very good point raised by Pettersson and Popkewitz (2019) is that 'Schleicher is in fact not only an educational entrepreneur, a skilled technician or really good in disseminating educational knowledge, but (together with others) has taken educational sciences out of the hands of "experts" in academia and placed the dominant expertise on education in the hands of entrepreneurs, technicians and statisticians' (2019: 29). Higher education is increasingly considered part of the wider economy and therefore governments have expanded their action into a wider array of higher education affairs. To this purpose, higher education as an area of public policy reforms has acquired political salience and greater political visibility in the last ten years (Mattei, 2014; Bleiklie, 2018). The crisis of the traditional public university is associated in Europe with budgetary squeezes, high drop-out rates (OECD, 2010), and the emergence and adoption of market forces and new models of economic innovation such as the triple helix conceptualized and developed by the sociologist Henry Etkzowitz at Stanford University (2008; Etzkowitz and Leydesdorff, 2000). This is a model of innovation based on the interactions between university, industry and governments, strongly associated with the knowledge economy and knowledge society.

The 'old' universities and their social embeddedness

The majority of the oldest and most traditional universities in the world are in Europe. In these regions of the world, we can find extremely venerable and socially embedded universities, historically dating back to the 11th century, which have intense local public engagement with their local urban (as well as with national and international) social networks. Many of these 'old' universities are exemplary cases of long-standing ideas about the role of universities, ideas that are now under great pressure but that still generate strong loyalties and that need to be adjusted to modern challenges. What to study was solely determined by the intellectual curiosity of scientists, intellectuals and researchers in the old universities, by tutors and

their fellows. The university developed later by von Humboldt is based on a community of scholars with academic freedom to investigate and teach their subjects, in a way that protects the university's independence from any political, economic and societal pressures. This has been the model which led to the labelling of 'the ivory tower', a university which was not viewed as a factor of production. The success (or otherwise) of these leading universities in adapting to the demands of marketization, massification and international competition matter not just for themselves but for the larger higher education systems which they continue to influence in one way or another. These are historically very autonomous institutions where the complementary demands of managing their local 'social embeddedness' are particularly visible. For instance, just to name a few: Oxford University, the Catholic University of Santiago de Chile and the University of Bologna figure among the oldest and most influential institutions in their respective nations. In the current century they are all facing challenging new conditions that require major innovations and adjustments, but that they will attempt to manage through their autonomous structures and processes, and that will need to be harmonized with their linkages to their respective host communities. They are located at the heart of key urban centres, and exercise huge local influence (with accompanying expectations and responsibilities) across a multiplicity of domains. They are not just student training and specialized research establishments, but have to engage with urban planning, transport, tourism, art, theatre, cultural provision and environmental management. Their medical schools are central to local provision of healthcare, their law schools train key elites in city government, their business spin-offs may stimulate local entrepreneurship and attract innovative technologies, and their connections to local political and democratic life are also powerful.

The 'new' entrepreneurial university

In recent years, the scholarly literature on public accountability has pointed to new governance frameworks that allow organizations to be not only responsible to internal control mechanisms, but also to society at large (Mattei et al, 2013; Mattei, 2016). Openness to the external world is an important driver of contemporary reforms and

a very timely policy area for research and intervention. Along this priority, some universities in the UK have designed coordinated plans to increase their commitment to social responsibility. This includes the leading research-intensive universities of the Russell Group and others. They have launched a variety of new initiatives and organized activities to build capacity in the area of public engagement. Activities to widen participation and reach out to local schools, hospitals and communities promote opportunities to consolidate social capital (Bourdieu, 1998). However, public engagement is also associated with the entrepreneurial university and its implications, as discussed here.

Universities should generate skills and promote employability of young people and more generally economic growth and regional development (Bok, 1982; Dill, 1996; King and Nash, 2001; Agasisti et al, 2017). A new model of the 'entrepreneurial university', developed by Etzkowitz (1983, 2003), suggests an organizational change that needs to foster the interactions with industry, economic stakeholders and government. This change entails strong ties with industry, a high degree of independence and capitalization of knowledge (Etzkowitz, 2008). Entrepreneurial departments should establish research contracts with firms and industry, which should invest in universities. Joint ventures between scientists and external companies and stakeholders will be important to generate new future profits and collaborations. The entrepreneurial university needs to make income from its research activities and generate profits from spin-offs, technology transfer companies and innovation. In this view, universities become very important actors for economic local development and economic growth (OECD, 1996; Nowotny et al, 2003; Clark, 2004). The essence of the new model of the entrepreneurial university is the relationship with economic partners and stakeholders. In its original definition, citizens were just marginal and not involved in innovation systems. This initial type of knowledge production has been called Mode 1, by Nowotny et al in their New Production of Knowledge (2003).

Universities and social accountability

Widening participation with external stakeholders also raises aspirations for young people from disadvantaged backgrounds, and

DEMOCR ATIZING SCIENCE

is used by university admissions teams to attract the best talents from all financial and social backgrounds. 'Social accountability' is also embedded in the activities aimed at increasing awareness and public understanding of scientific discoveries and their impact on the quality and wellbeing of people. The European Researchers' Night, sponsored by the European Commission, is one very good illustration of openness. Departments and research centres organize events and seminars, such as 'open days' open to the public to foster relationships with the 'consumers' of higher education (parents and students). Environmental awareness initiatives are also an important agenda of UK universities. It is worthwhile noting that some of the public engagement activities are increasingly associated with the public impact agenda, which is in itself a means of collaborating with commercial enterprises and industry. Thus, these initiatives not only serve the purpose of democratization, but also financialization (Newfield, 2003; McGettigan, 2012). The triple helix model of innovation, theorized by Etzkowitz and Leydesdorff in the 1990s, was predicated on the partnership between government, industry and universities that would establish networks and projects to stimulate local economic development and innovation systems. The model has been developed further to conceptualize a quadruple helix, which involves citizens in creating innovative knowledge systems. Innovation is highly contextualized in such conceptualization of knowledge, and oriented towards applied problem-solving, which tends to require multidisciplinary approaches. This is what Nowotny et al refer to as Mode 2 of the new production of knowledge, an approach which is heavily reliant on the application of knowledge to specific cases and contexts. 'Contextualizing' knowledge production is also the main thrust of the argument presented by Gibbons in 1999, when he called for a new contract between science and society.

The market logic and introduction of competitive ideas and instruments has somewhat replaced the notion of a public university as socially embedded in local democracies in favour of the corporate business model. As entrepreneurial corporations, universities are expected to be open to the external world and to behave as corporate actors (Pollitt and Bouckaert, 2011). Universities need to be 'entrepreneurial' (OECD, 1996; Clark, 2004; Mattei, 2014). Regardless of the evaluative and normative positions in

UNIVERSITIES AND CIVIC ENGAGEMENT

relation to the marketization of higher education, it is widely accepted that marketization has been the major driver of reforms in university governance (Verger, 2012). This puzzle poses two interrelated questions:

- 1. How do universities strike the balance between their academic autonomy accumulated over historical processes of sedimentation and new practices associated with public engagement with external stakeholders?
- 2. In the context of the marketization of public higher education, how do the most traditional universities respond to the market logic while protecting their institutional autonomy?

It is important to understand and explain how traditional and influential universities in Europe and Latin America contribute to the promotion and consolidation of social embeddedness, in light of the changed policy environment in which they operate, increasingly marked by marketization (Capano et al, 2016) and managerialism (Hood, 2000; Pollitt and Bouckaert, 2011). Universities are urged to be more business-like, and open to external stakeholders, and it is not yet clear whether these new practices give rise to hybrid forms of accountability and consequently affect universities' autonomy and governance. Hybrid forms of accountability imply the development of new mechanisms of democratization and changing relationships between universities and local communities. This hybridization of accountability regimes creates new realities for public administration (Considine, 2002), posing significant challenges in understanding the new 'grammar' of institutional design (Mashaw, 2006), as such forms of accountability are difficult to locate and hard to characterize within clear analytical categories (Scott, 2000). At times, they reinforce each other, but at other times, they create competing accountability relations and values (Hood, 2000). Universities' public life is now conducted in a complex environment in which multiple actors - both public and private – operate within increasingly overlapping, fluid and at times conflicting accountability regimes, each with its own concerns, powers, procedures and institutional logic.

It is important to advance our understanding of the relationship between the marketization of higher education and the processes of civic engagement of local communities (Whitehead, 2002, 2006). Universities are primary vehicles of knowledge transfer and agents of social change and social reforms. However, the societal and democratic consequences of contemporary reforms (especially new public–private partnerships) are under-researched. How do universities contribute to strengthening their social embeddedness and what strategies do they employ to preserve their influential position and social capital at the local level, against the backdrop of heightened market pressures?

Higher education landscape reforms: the marketization agenda

A global 'modernization' agenda of public higher education emerged in the early 1990s. In the first instance, reforms were aimed at transforming public universities into entrepreneurial institutions, enabled by their newly acquired independent legal status with legal autonomy, as self-governing institutions responsible for their own teaching and research strategies, staffing and investment policies. This was aligned to wider administrative reforms of public services (Mattei, 2009). Processes of autonomization of public agencies from ministerial control have challenged existing hierarchical and pyramidal mechanisms of coordination, as well as traditional relationships between different levels of government (Peters, 1992; Rhodes, 1997). There is considerable evidence to suggest that the English system has been used over the past decade as an alternative model for many of the reform debates in Europe, particularly those concerning the relationship between universities and the market logic. Continental reformers driving the transformation of national universities into independent agencies have made explicit reference to the English case (Christensen and Laegreid, 2006). I define the 'market logic' following the influential work by Marino Regini, who defines marketization as the process whereby new actors other than the state and the academic community acquired influence and power in the higher education system and are recognized by the policy community as legitimate actors (Ballarino, 2010; Regini, 2011).

In the traditional European university, the market played no role (Clark, 1983). Since the late 1990s, however, emerging in tandem

with the increasing legal autonomization of universities has been heightened pressure for these institutions to subscribe to new normative and cognitive frameworks associated with systems of market-driven accountability (Bok, 1982; Dill, 1996; Mattei, 2009). In many ways, reforms in the United Kingdom during the 1980s provided the blueprint for later policy adaptations in European university governance. For example, the Research Assessment Exercise (RAE) and Teaching Quality Assessment, introduced in England in the 1980s, applied formal, third party assessment of British colleges, universities and educators. The RAE aligned the disbursement of public grants with the conduct of specific research and administrative practices in higher education, rewarding those institutions that invest in 'internationally leading activities'. The financial and reputational costs of the RAE motivated many universities to shift their strategic focus to only those activities in which they are international leaders, which implicates less prestigious research areas as well as local and regional partners. As with the RAE, the Teaching Quality Assessment introduced formal assessment of educators and the quality of their introduction as part of a larger effort to standardize the provision of higher education. Measures such as the RAE and the Teaching Quality Assessment lend credence to the emergence of the 'steering' state, which is more instrumental in its orientation. Promoting certain practices and behaviours at the institutional and individual level, through measures such as the RAE or Teaching Quality Assessment, is consistent with the notion that as states grapple with financial sustainability they are increasingly preoccupied with aligning institutional and individual behaviour with predetermined objectives, perhaps at the expense of equity or social justice, and also civic engagement. As measures such as the RAE have inspired similar initiatives throughout Europe, including Italy, investigations into the societal consequences of these changes has been generally overshadowed.

A key change to the evaluation of research is the assessment of non-academic impact. In the most recent REF in the UK, 20 per cent of the publication grade was given to impact of research beyond the scientific community. The impact agenda is an extension of the research evaluation exercises, and it has been adopted also by the European Research Council in 2011. The 'Proof of Concept' grants, newly created in 2012, are dedicated to follow-up funding

DEMOCR ATIZING SCIENCE

to contribute to stimulating economic and societal impact. Policies seek to enhance the non-academic benefits for academic research for economic and regional development. There has been less scholarly attention to this non-academic impact, but this is probably because such policies are still at an embryonic stage. Academics have tried to fit their research to serve commercial purposes and secure 'endusers' support (Pitman and Berman, 2009).

The existence of competitive or performance-based funding mechanisms has also led to the evolution of new and distinct incentive structures in higher education. Many European governments have encouraged the concentration of research funding in clusters of 'excellence', namely institutions that meet the highest research standards. In Germany, for instance, policies designed to foster research excellence have been implemented since 2006 via the Excellenz Initiativ. In the UK, the RAE has contributed to concentrating financial resources in the most prestigious institutions. In France, similar policies have had profound effects on higher education governance, promoting a new institutional reconfiguration of the relationship between universities and the Grandes Ecoles. Despite important variation across nations, the reform agenda pursued by European universities has been remarkably similar across nations, a development that must be understood in the context of greater coherence and co-operation between higher education institutions in Europe. However, the Italian case is paradigmatic and worthwhile of further investigation. The resources allocated to research through competitive procedures in Italy are limited in size, and resistance to competition has arisen during the implementation phase. The increasing centrality of European programmes in developing a European Higher Education Area, as established by the Bologna Declaration signed in 1999, has generated a degree of policy diffusion and convergence, especially in the context of university governance and funding reforms. As such, the reform agenda needs to be understood in the national as well as the supranational context. Despite national variations in organizational form and design – both of which reflect normative, cultural and historical legacies – European supranational institutions have promoted the harmonization of degree structure across universities through the Bologna Process, as well as the mobility of students across universities in Europe through the European

Community Action Scheme for the Mobility of University Students (ERASMUS) programmes.

National universities in Europe are adopting strategies that are increasingly shaped by binding agreements adopted at the European level. Since its founding in 1999, the Bologna Process has led to similar reforms in many European university systems (Olsen and Maassen, 2007). The European Commission has likewise developed instruments such as ERASMUS to support internationalization and mobility of students. ERASMUS has expanded its scope from narrowly promoting mobility, intended for cultural and academic purposes, to a much broader programme supporting knowledge transfer and network formation. The Bologna Process, meanwhile, has contributed to the convergence of higher education infrastructure, including the cycle-structures of teaching programmes as well as quality assurance procedures of different national systems. Finally, the European Commission has contributed to this trend through its visible and significant financial support for higher education research: Framework Programmes, which have been in operation since the 1980s, guide nations to navigate funding schemes as well as various activities across thematic areas; the European Research Council and the European Institute of Technology have similarly influenced national behaviour through the competitive grant processes. Taken together, structures such as Framework Programmes, the European Research Council and the European Institute of Technology have shaped national behaviour from the supranational level.

Despite the rise of international policy trajectories and convergent pressures, national differences are pronounced with regards to marketization of universities and universities' adaptation to this changed environment. I realize that 'marketization' is a broad term of reference, illustrated mainly by the Anglo-American model of university governance, and distinct from the Italian or German higher education system. Since 2010, the Italian higher education system has experienced government reforms aimed at loosening the centralist bureaucratic grip on universities and granting them greater institutional autonomy. On the contrary, in the UK, universities' autonomy has been constrained through the adoption of policies designed to increase competition. In Italy, the introduction of the market logic was resisted as it was mainly interpreted as 'meritocracy'

and the introduction of selectivity and entry exams (Capano et al, 2017). In the Italian case, trade unions and students' protests have played a significant political role in resisting reforms aimed at opening public universities to the market logic.

The claim that marketization is 'meritocratic' rests on a particular view of the self-serving 'insider' protection that this school says need to be blown open by the winds of competition. First, not all the institutions we are dealing with are that much in need of drastic reforms – at least as indicated by the rankings. Second, if reform is needed it can perhaps be advanced by more democratic and consensual means. Third, even if some variants of marketization are healthy many are not. In Chile the idea was not to reward merit in some abstract sense, but to reshape the career structures and incentives to eliminate dissenting scholars and to force focus on immediately profitable economic 'deliverables'. I would like to stress the multiple functions of old universities: it implies that single metric payoffs come at a heavy price in loss of functionality on nonincentivized dimensions. Finally, meritocracy was not originally intended as the socially optimum goal – it was a satirical concept. Alternatives include 'republic of letters' fundamental research, and training students to be critical thinkers, rather than solely focused on exam results.

The 'engaged' university

Universities generate skills and promote employability of young people, economic growth and development of human capital for the competitiveness of national economies (Checchi, 2006). These are compelling components of the economic function of the higher education sector, deeply transformed by the shift towards the post-industrial knowledge economy (European Commission, 2006; Ferlie et al, 2008; Department for Business, Innovation and Skills, 2016). At the heart of the economic approach to higher education lies the discussion of the quality versus quantity trade-off and the implications of selectivity for improving educational outcomes of students and overall quality. Policy makers seek a resolution to this dilemma, because the survival of public universities rests significantly on reducing the drop-out rate of first-year university students, and on their academic performance. The democratization of universities

has increased enrolment levels with a view to improve equality of opportunities through equity of access. The sector experienced a rapid expansion in Europe with an ever-increasing participation rate, most often with no equivalent increases in financial resources. For instance, the participation rate in the UK in 1989 was 14 per cent, in 1995 was 33 per cent and in 2005 was 43 per cent. Policies of expansion in Italy in the 1990s, with greater availability of courses, did not however have the expected positive impact on obtaining a degree (Bratti et al, 2008). The mismatch between expansion and necessary resources generated worries about the quality and sustainability of the higher education system. Reforms were introduced in all European systems to tackle the quality versus quantity dilemma. On one hand, selectivity fosters excellence and high quality standards; on the other, participation improves social mobility, the promotion of values and brings up structural transformations of the economy.

The use of entry examinations was one of the instruments that improved the educational outcomes of students and the quality of the education system. An influential study by Carrieri et al (2015) demonstrated positive effects of changing admission policies on educational outcomes through the impact of a better quality of social interactions at the class level. Their study confirms the desirability of using selective admissions tests in Italian public universities as a possible solution to the quality-quantity trade-off. This work has interesting ramifications for the study of public engagement insofar as it shows that the most significant positive effect on students' performance (measured as average Grade Point Average [GPA]) is the level of students' engagement in the class and the quality of their social interactions. The limitation of this study was the impossibility of disentangling peer-to-peer effect from teacher-tostudent effects. According to the same study, the introduction of selective admission tests reduced significantly the drop-out rate of first-year students by 14 per cent.

Retaining, engaging and graduating university students has a direct effect on social and economic returns and the community prosperity. Public engagement activities can stimulate interest in a topic, increase motivational levels, students' attention and curiosity. Initiatives aimed at fostering the quality of interactions between students (peer-to-peer effects) and between students and their

environment (civic engagement) is a way to develop students' knowledge, giving them ownership of an issue or topic. Civic engagement is a solid educational tool for leveraging wider societal gains. Betts and Morell (1999) conducted a study of more than 5,000 undergraduates at the University of California San Diego, with the purpose of explaining the variations in students' performance at a major public university. They use a rich longitudinal database on undergraduate students enrolled at the University of California San Diego to search for a link between high school characteristics and GPA. They found that the socioeconomic environment of the high school affects university students' GPA. Moreover, neighbourhood traits are important predictors of students' GPA; students from disadvantaged area have lower GPAs than students from affluent areas. Betts and Morell's study points also to the effects of the 'demographic environment' in which the student attended high school on performance at university. Their study also demonstrates the positive effects of peer-to-peer interaction, as suggested also by Carrieri et al (2015) and Checchi (2006).

In recent years, the scholarly literature on horizontal accountability has pointed to new governance frameworks that allow organizations to be not only responsible to internal control mechanisms, but also to society at large (Mattei et al, 2013; Mattei, 2016). Openness to the external environment is an important driver of contemporary public policy reforms and a very timely policy area for research on higher education governance (Paleari et al, 2015). Horizontal accountability is viewed as a type of direct accountability to citizens (Mattei et al, 2015). It presupposes a lack of trust in government and the existence of several 'stakeholders' in society and the environment. They create a pressure on public organizations, as those organizations are obliged to account for their activities visà-vis citizens at large, stakeholders, or (civil) interest groups and users' associations. They do so via the media, public reporting, public panels or online information. Giving account to various stakeholders in society normally occurs on a voluntary basis and has also been labeled horizontal accountability.

The European Commissioner for Research and Innovation in October 2016 has emphasized the core values of European research funding: impact, excellence and openness. 'Societal impact' of research on society has gained importance and is now firmly

anchored on the agenda of reforms. Following the House of Lords' 2000 Report, the majority of research universities in the UK have designed coordinated plans to increase their commitment to social responsibility (NCCPE, 2010). This includes the leading researchintensive universities of the Russell Group. The League of European Research Universities also published a report entitled 'Productive interactions: Societal impact of academic research in the knowledge society' (March 2017). The NCCPE was founded in 2008 in the UK with the aim 'to create a culture within UK higher education where public engagement is formalized and embedded as a valued and recognized activity for staff at all levels, and students'. It is funded by Research Councils UK and the Wellcome Trust. It was established to provide expert advice, training and tools relating to planning, promoting and supporting public engagement initiatives. It is currently involved in the work leading up to the new REF 2021. The REF is the UK system for assessing the quality of research. The creation of NCCPE represents the political and institutional commitment to an understanding of impact that goes beyond spinoff and knowledge transfer for commercial purposes.

The current understanding of 'public engagement' in the UK is much wider than a narrow definition of 'applied' research for commercial purposes. Knowledge is not viewed as a linear process, from academic to applied research, but instead it is regarded as part of a networked system. Societal impact has come to the forefront of higher education due to changes related to globalization, as discussed earlier. Activities to widen participation and reach out to local schools, hospitals and communities promote opportunities to empower local engagement. Widening participation with external stakeholders also raises aspirations for young people from disadvantaged backgrounds (Park and Kerr, 1990; Betts and Morell, 1999), and is used by university admissions teams to attract the best talents from all financial and social backgrounds. 'Societal impact' is also embedded in the activities aimed at increasing awareness and public understanding of scientific discoveries and their impact on the quality and wellbeing of people. The European Researchers' Night, sponsored by the European Commission, is one very good illustration of openness and communication of scientific results.

The formal support to the public engagement agenda is the publication of a Concordat for Engaging the Public with Research

(2010) by the UK Research Councils. The Concordat provides a list of some of the activities that it considers constitute public engagement: participating in festivals; working with museums/galleries/science centres and other cultural venues; creating opportunities for the public to inform the research questions being tackled; researchers and public working together to inform policy; presenting to the public (for example, public lectures or talks); involving the public as researchers (for example, web-based experiments); engaging with young people to inspire them about research (for example, workshops in schools); and contributing to new-media-enabled discussion forums (UK Research Councils, 2010: 4).

The underlying assumption of the increased institutional commitment of government agencies on public engagement activities is the co-production of knowledge, whereby stakeholders are involved from the start in research projects, and not only in the phase of 'applied' research. Co-production stands on very different premises than the traditional linear view of the process of knowledge creation; instead, it is a dialogic approach whereby stakeholders are integrated at each stage of the research project. Traditional mechanisms, starting with basic research and ending up with applications, have come under challenge, especially in the social sciences, and we increasingly need nonlinear and flexible procedures (LERU, 2017). In an influential positioning paper, the League of European Research Universities has emphasized the need to rethink how knowledge is created and consequently to adopt assessment strategies that reflect these wider changes. The best practice of the UK is cited as an illustration of a potentially interesting way forward. In the UK, public engagement is understood in wider terms, as a broad concept that is not restricted to 'economic impact' or economic direct return of investment.

The public engagement agenda has been augmented by an associated policy trajectory: the impact agenda. In the UK, according to the REF 2014, there is a precise weighting of three criteria to assess the quality of research: 65 per cent is attributed to research outputs; 20 per cent to impact; and 15 per cent to vitality. The impact agenda in the UK does not only apply to research assessment, but also to funding by the public research councils and it is linked directly to research funding (Holmwood, 2011). REF

2014 introduced impact case studies to document the reach and significance of societal impact. This has brought about real change and an institutional recognition at the university and departmental levels of societal impact as a key dimension of research assessment. In short, in the five years following the REF 2014, £1.6 billion of funding was determined by impact case studies.

The Italian understanding of public engagement by the Italian National Agency for the Evaluation of Universities (ANVUR) is quite similar to the British definition (ANVUR, 2018). ANVUR has collected five impact case studies from each university and three case studies from each department, for a total of 5,099 case studies in 2014. The only national evaluation available of public engagement activities is based on 2014 data. ANVUR uses peer review of descriptive case studies provided by universities and other higher education institutions to evaluate public engagement activities. Currently, there are no quantitative performance indicators for public engagement. A national committee of experts is appointed by ANVUR to evaluate public engagement activities on the basis of three criteria: clarity of objectives of public engagement activities; resources used; and 'impact', measured as the number of participants, number of people who have accessed the website (ANVUR, 2015). Although the evaluation of public engagement, as a separate category of the so-called 'Third Mission', was carried out for the first time only in 2014 on a pilot basis, this shows the new commitment by ANVUR towards measuring the impact of the university system. One of the reported areas for future improvement is the definition of public engagement, which remains too broad at the moment (ANVUR, 2017). The results of the 2014 evaluation were published publicly in 2017. The first ranking university in Italy for public engagement activities is the University of Torino, followed by Piemonte Orientale and Castellanza. The majority of Italian universities (39.5 per cent) was ranked in the lowest merit category (Category 'D'). The ANVUR evaluation shows that there is ample scope for improvement at the national level. Only ten universities were ranked in the highest category ('A'): Torino, Piemonte Orientale, Castellanza LIUC, Trento, Roma Tre, Ferrara, Urbino, Parma, Padova and Pisa. Reports published by ANVUR suggest also that current resources are not sufficient, despite the fact that public engagement is valued and recognized by the majority of academics in Italy (ANVUR, 2017, 2018). The overall number of public engagement initiatives continues to rise steadily, from 2,406 in 2012 to 2,693 in 2014 (ANVUR, 2017).

While in the UK and, to a less extent, in the Nordic countries, research assessment based on using public engagement as a measure is firmly embedded in the organizational culture of most universities since the mid-1980s, in Italy this is a fairly new policy agenda, and ANVUR seems to be steadily moving in this direction since 2014. The creation of APEnet on 16 March 2018, a network of Italian universities for public engagement, marks the start of the diffusion of a new culture at the national level and scaling up of initiatives. To date, there are national surveys of how academics engage with the public, but there is no systematic comparison in Europe and Italy of universities' institutional strategies towards public engagement. Future research is needed on comparative empirical investigation of institutional practices of universities aimed at fostering a dialogue between the public and society. Mapping individual academics' activities through questionnaires is a very useful approach, but it is important to understand the rewards and institutional incentives in place in different countries, and the link between the individual and the institutional level.

ANVUR published *Guidance for the Evaluation of the Third Mission* in 2015. Public engagement is one of the activities included in the Third Mission and it is defined as 'the creation of socially and culturally relevant public goods'. It is also viewed as 'openness to the socio-economic context'. Public engagement is indeed recognized as one of the activities of public universities. The Third Mission has been assessed in the 2004–2010 VQR (Research Assessment) and VQR 2011–2014 conducted by ANVUR. Public engagement was not clearly defined and was submerged under 'other activities' of the Third Mission. In the main, the assessment concentrated on knowledge transfer (ANVUR, 2011), and public engagement was completely marginal and did not gain salience until 2014. In the Italian system, public engagement was not used as a measurement of research funding allocation and it is not yet rewarded financially at either the institutional or the individual level.

In the most recent Evaluation of Research Quality (VQR) by the Italian agency ANVUR, the method of assessment of public engagement changed significantly (ANVUR, 2016). Informed

peer review was the approach chosen by the agency, which set up a committee of 30 experts to draw up criteria for evaluating the 'impact' of initiatives and not merely a census, as it was in the past. I was part of this committee of experts and contributed to the development of sound indicators to measure the economic. cultural and social impact of universities activities in the area of public engagement and sustainability. The method of evaluation was not experimental, as previously, but it was based on rigorous and solid qualitative and quantitative indicators of impact. In July 2022, ANVUR published the results of the performance of the 700 case studies submitted by Italian universities and research institutes. Despite the changes in the methods of evaluation, and the great efforts to evaluate a large number of case studies, with solid indicators, the final results bear a minimum weight on the overall funding criteria of universities in Italy. This approach has not changed as much as it should.

Public universities at a crossroads

Public universities in Europe are at a crossroads. Their drive for excellence and equity has come under mounting pressures arising out of economic and financial strains and stronger advocacies for further marketization. Over the past two decades, a multitude of structural reforms in public higher education systems have exerted increasing institutional pressures on universities to adapt to new political processes. Governments have reformed accountability mechanisms in ways that have a long-lasting impact on society and citizens beyond an instrumental economic view of public education. What are the challenges? First, the sustainability of traditional funding sources and allocation methods for public universities has been under review for some time now. This gave rise to new competitive measures to distributing funding, academic performance evaluation and outright privatization (Holmwood, 2016). Second, the context of international competition in higher education has become increasingly relevant to the survival of universities in an ever more demanding global market for higher education. The rise of world rankings has created competition between universities globally and has increased the value of reputational assets (Mattei, 2014). Whereas strains on the public purse underpinned decreasing

DEMOCR ATIZING SCIENCE

levels of spending per student in most European countries from the 1990s onward, governments in East Asia have been investing an ever-growing share of their state expenditures in higher education. Economic growth models and strong state capacity lead this. Third, at the same time of public funding cuts and rising global competition, the demand for higher education across Europe and other parts of the world has increased relentlessly.

In many Latin American countries, universities are still regarded as key institutions of social change and representative democracy. Higher education reforms have firmly reached the top of the political agenda in Mexico, Chile and other countries. The current reform impetus surrounding this public policy area is driven by a commitment to processes of democratization, social responsibility of universities and improving government accountability (Whitehead, 2006). Higher education reforms have attracted strategic and programmatic political action, as illustrated by the strengthening of permanent institutions such as the Permanent Academic Forum of Latin America and the EU (FAP ALC-UE). European and Latin American countries have a lot to learn from each other, with regards to social embeddedness and democratic consolidation.

The process of massification within an overall declining budget has led to institutional changes and processes of internal adaptations to the changed external environment. The key challenge for the future is how public universities adapt their institutional autonomy to the pressures in the policy environment. Declining public revenues has accelerated reforms associated with new accountability and performance evaluation, outputbased funding allocation, managerialism and entrepreneurialism (Mattei, 2014). The predominance of traditional actors in higher education systems (the state and the academic community) has been transformed by the entry of new actors from the private sector (Capano et al, 2017). Since 2010, the UK higher education system has emphasized the impact agenda, orientated towards commercial purposes and for-profit projects. The role of the state has changed from being the main provider of public services to being enabler of new hybrid forms of collaboration between public, private and non-state actors that have acquired the status of stakeholders in the system. For instance, the

creation of new public engagement initiatives or public–private partnerships are consistent with the state's 'steering ethos' insofar as such mechanisms enable the government to inform university strategies without a traditionally statist direct intervention. Many scholars view the growth of the market logic in higher education systems as inevitable given the external and internal pressures threatening the sustainability of the public European university and, ultimately, its capacity to shepherd competing demands. The marketization of public higher education systems, more noticeably in the Anglo-American models (Holmwood, 2016), raises fundamental questions about the role of the public university in the 21st century and the need to investigate the wider societal consequences of these landscape reforms (European Commission, 2016).

This is not to say that the market logic has become predominant in Europe. Traditional universities in France, Italy and Germany continue to be committed to a different model of governance. The Italian system underwent radical reforms in 2010, but it is still based on dense collusive networks between the leadership actors and local groups aimed at spoils distribution for funds, procurements and jobs. The autonomy of Italian universities generally is difficult to implement, due to the hyper-formalization of central administrative controls. Selectivity remains at the margins of the public higher education system. However, this is not to say that venerable institutions have attempted to maintain their social capital and influential position at the local level. The British system is increasingly centralized as a result of marketization. Market-driven reforms, such as increasing tuition fees, outsourcing, inclusion of for-profit providers, and changing the ways in which research is funded, have changed the British landscape hugely (Holmwood, 2011; King, 2011). Italy and the United Kingdom contrast also in relation to processes of students' engagement in the governance of higher education systems and processes of reforms. Students' leadership in Italy has been a veto point in contemporary reforms to introduce selectivity in the system. The resistance has been effective and blocked government attempts to adopt Anglo-centric models of higher education systems (Checchi and Mattei, 2021). This book corrects the imbalances in the literature, which remains narrowly focused on

DEMOCR ATIZING SCIENCE

universities as instruments of economic growth and human capital and underestimates the wider societal impact of reforms.

Conclusions

In this chapter, we have focused on the political and social role of public universities in Europe as independent institutions of political change and social transformations. This is a timely area of policy debate and reform impetus. The contemporary policy environment increasingly driven by market forces in the Anglo-American context triggers the creation of university practices associated with public engagement initiatives, public awareness programmes and new public-private partnerships in conjunction with other sectors. The marketization of higher education discussed in this chapter has been highly controversial and has raised many concerns. This chapter was centred on a complementary but equally important aspect that has tended to be overshadowed by the marketization approach. Universities are often venerable institutions with high social capital and strong local visibility. Unlike commercial enterprises their social value needs to be assessed using multiple metrics. Financial viability is essential of course, but they have not hitherto been exposed to bankruptcy risk. The social costs of any liquidation would be considerable. How best can universities strike the balance between the forces that push for system level order versus the forces that stimulate the strengthening of institutional autonomy? An effective balance between order and autonomy is to be created not only at the national, but also at the European level.