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# DEMOCRATIZING SCIENCE

The Political Roots of the Public Engagement Agenda

PAOLA MATTEI



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Engagement Agenda

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To Emilia, Maria and Paolo



Democracy is more than a form of government;  
it is primarily a mode of associated living.

John Dewey, *Democracy and Education: An  
Introduction to the Philosophy of Education*, 1926



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# **Introduction: Science and Democracy**

There has been a growing concern in most liberal democracies about a rising wave of attacks against the legitimacy of science and the scientific method, including not only efforts to discredit individual scientists but also a far-reaching campaign against institutions of higher education, researchers, public intellectuals and experts. The COVID-19 pandemic has brought to the forefront of the public debate the relationship between science and society. Paradoxically, when the world has been struggling against one of the worst healthcare emergencies in modern times, science has been taken hostage by political controversies and highly divisive public debates. Public trust in the authority of science has been under extraordinary pressure for some time. Crucial areas of human activities and public policies, such as agriculture, vaccines, climate policies and healthcare, are influenced not only by technological advances and scientific innovation but also by the mobilization of raw emotions and populist political strategies that escape evidence-based solutions to social, economic and political problems. In populist regimes, science is subject to public delegitimization and denigration. For instance, in July 2020 the White House Press Secretary claimed the rise of hospitalizations was due to catch-up in elective surgeries. The Trump White House claimed also that hydroxychloroquine was a treatment for the COVID-19 virus. Similar attitudes were recorded in populist regimes like Mexico and Brazil.

The anti-experts and anti-science populist campaign accelerates the deterioration of the relationship between science and society

(Mede and Schäfer, 2020). Unfortunately, this is occurring at a critical juncture when governments globally have placed public engagement and citizen science at the top of their priorities. Citizen science is part of a global paradigm that is gaining ground globally. It refers to the practice of public participation and collaboration in scientific research to increase scientific knowledge (Parisi, 2023). National research agencies and international organizations have equally embedded citizen science to build partnerships between research projects, scientists and local communities. For instance, the *Implementation of Federal Prize and Citizen Science Authority: Fiscal Years 2017–2018*, published by the White House Office of Science and Technology, shows how citizen science activities and projects conducted by federal US agencies are widespread and embedded in research and innovation projects. Platforms such as ‘CitizenScience.gov’ help federal agencies accelerate innovation through public participation, collaboration and partnerships with the communities. Likewise, ‘EU-Citizen. Science’ is a platform that plays an important role in sharing resources and knowledge about participation in science in Europe by the public. In 2015, the European Citizen Science Association set out the basic principles of citizen science. These include public participation in the design and implementation of research projects, on a voluntary basis. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has also contributed to the global practice of citizen science by supporting Citizen Science Global Partnerships, a network of associations and groups that seek to promote and advance citizen science for a sustainable world. For instance, engagement with local communities through a participatory approach has been used in flood and drought risk management. Another exemplary use of citizen science is the partnership with Australian communities for the Bushfire Recovery for Wildlife project, supported with AUS\$200 million from the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia’s national agency for research and innovation. The scope for citizen science is global. In this book, we will focus only on the European scenario.

At a time when global and national research and innovation strategies concentrate on the involvement of citizens and society in science and national governments design new methods for improving public trust in research, populist movements have reached

their greatest political salience and have started to win general elections and executive posts. The intellectual preoccupation over a possibly missed opportunity to improve the relationship between society and science in a new, positive direction motivates this book. As one reflects upon the evolution of science in the last decade, oriented towards greater involvement and dialogue with citizens, it is inevitable to be concerned about the contemporary historical conjectures that could hamper even the best government efforts.

The main purpose of *Democratizing Science* is to critically discuss some of the soft governance policy instruments used as remedies to improve the public trust and the legitimacy of science and research, with a focus on the so-called public engagement institutional strategies and policy programmes both at the European and national government levels. We adopt the definition by [Rowe and Frewer \(2005\)](#), who refer to ‘public engagement’ as forms of knowledge that entail an interaction between the academic community and a non-expert public. The book will review different policy approaches adopted by governments to encourage the involvement of citizens in the production of knowledge through new co-production arrangements, participatory mechanisms, local community engagement and other practices. I am particularly interested in how the role of citizens has evolved in the last 40 years, starting from the early 1980s, when the organizational model of public services and, more generally, government institutions changed under the New Public Management (NPM) environment ([Mattei, 2009](#); [Milner et al, 2021](#)). A fundamental and long-lasting reform in the role of citizens was realized in the 1980s when NPM was introduced ([Hood and Dixon, 2015](#)). Governments’ role became that of market-driven service provider and citizens’ role altered to that of customers with extended voice options with the freedom of choice. There was a growing concern for performance and governmental outputs, unlike the input legitimacy of the 1960s.

What policies can governments adopt, and have adopted in practice, to rebuild public trust in scientific knowledge in a post-truth era? How has the relationship between science and society changed over time, from the early 1980s to the present? *Democratizing Science* investigates the new forms of knowledge production that ‘bring citizens in’ to the process of research design, data collection and communication of results ([Irwin, 1995](#)). It

focuses on the origins of the new participatory turn in knowledge systems (Jasanoff, 2003).

Why have governments in the last ten years reoriented their research strategies and funding towards so-called citizen science? How can we explain such steady and widespread policy direction that moves away from the public understanding of science approach towards the public engagement model? These are the key questions that this book wishes to reflect upon, drawing upon a multidisciplinary and rich scholarly literature. Given that public engagement is a slippery concept and has by now achieved the status of a ‘magic concept’ (Hupe, 2022), the book offers a critical reflection on its multiple dimensions by unbundling its potential from political rhetoric, which is also associated with participatory practices. By no means do I suggest that the new participatory turn in knowledge production is a golden value or standard. In contrast, the book explores the perils of adopting a ‘populist’ approach to science policy not driven by intellectual curiosity, and blue sky research, but exclusively based on economic and societal instrumental needs and demands arising from narrowly localized contexts. We will then concentrate on government agendas to democratize science from a critical perspective that aims to highlight the evolution of the role of citizens, the new strategies to interact with them, but also the risks of bringing citizens in and leaving science out.

The discourse of democratizing the processes of state governance has travelled across different jurisdictions, institutions and policy sectors. The articulation of the conception of ‘participation’ and ‘public engagement’ shows varying characteristics across policy domains. In medical care and technology, for instance, the focus is on activating patients and their associations and identifying new ways of interaction and collaboration between the state, professionals and patients (as users). There are lots of experiences collected in health-policy making of citizen juries (Street et al, 2014). Most public engagement activities in this domain are understood as a feature of civic epistemologies as defined by Jasanoff (2005). In most European countries, the public engagement practice associated with technology assessment is now well established in the field of artificial intelligence, genetically modified plants, HIV studies and neuroscience, just to mention a few. These practices are linked to a post-positivistic conception of policy making (Héritier, 1993),

not exclusively based on technocratic rationality, but on input of different groups with varying values, interests and needs. The technocratic relation of science and politics, which dominated in the new era of new managerialism, slowly paved the way to the inclusion of multiple and complex epistemic communities and societal groups (Mantovani, 2016).

The thrust of this book is that the public engagement agenda, currently adopted and institutionalized in many countries around the world, offers a potential remedy to diminishing trust in science and is a fruitful way forwards to democratize academic projects meaningfully and efficaciously. However, not all practices of public engagement are without risks, and in some cases, citizens are recruited in large population projects as volunteers for data collection in unethical ways. It is also unclear what a citizen is in the interaction between scientists and stakeholders, as new types of nontraditional citizenship escape the nation state. The book will invest much effort in discussing ecological citizenship and its implications for public engagement. Thus, the discussion in this book presents multiple facts about the concept and practices of interacting with citizens, and it also offers a critique of the rhetoric associated with citizen science. Public engagement is instrumental to this broader government *political* agenda to provide legitimacy to possibly unpopular marketization ideas.

Therefore, public engagement is defined as the interaction between researchers and organizations with stakeholders outside of academia for the mutually beneficial transfer of knowledge, resources and methods. The original approach of the book is to focus for the first time on the *political dimension* of these government agendas and to analyse public engagement as an institutionalized policy area beyond individual behaviour and attitudes. Unlike other books, which focus on individual behaviour, mainly in the field of behavioural economics, the chapters in this book offer a critical understanding of governments' policies to democratize science and design innovative approaches to support public co-production of knowledge.

Despite the need for a few critical reflections, the shift towards greater openness, transparency and interaction with citizens is a hard-won gain for public accountability, a constitutive element of liberal democratic systems (Mattei, 2018).

*Democratizing Science* points to the advantages of investing in public engagement practices and co-production arrangements as a way to reconfigure the relationship between universities and educational institutions and society, which has radically changed due to the effects of marketization reforms associated with the ‘entrepreneurial state’ (Greve et al, 2016). NPM and its marketization element, from the early 1980s, have proposed a new model of public sector organizations, inspired by the private sector and by a view of citizens as customers and clients. Contracts are at the basis of the interaction between science and the public, and trust is somewhat left at the margins of such a framework of relationships. Chapter Three of this book will discuss this in detail. The organizational changes associated with marketization, particularly in the delivery of public services, have significantly impacted schools, universities and, generally, places where knowledge is produced, transmitted and used. This phenomenon has been widely studied in the public policy and public management literature. This book starts from a discussion of critical junctures of the 1980s reform agenda and proposes to analyse public engagement as the new millennium response to it. Public engagement can be viewed as a post-NPM trend, whereby public participation becomes part of public services modernization (Fenwick and Mcmillan, 2012; Burchell et al, 2017).

### **A crisis of public trust in science**

There is growing concern in most liberal democracies about the surge of attacks against the public legitimacy of science and the scientific method. This includes not only efforts to delegitimize individual scientists and their expertise but also the social locations of knowledge production, such as universities, research centres, teaching hospitals and schools. Public trust in the scientific community is under huge pressure. In the post-truth era, evidence-based public policy is increasingly challenged by a new reconfiguration of ‘scientific truth’. Crucial areas of human activities and public policies, such as healthcare, food, agriculture and climate policies, are subject to the manipulation of public sentiment, ideologies and affective political strategies that depart from policy making based on evidence, data and reason.

Although the public debate on the post-truth society extends to a wide range of government activities and policies, in the medical sciences and healthcare policy, the rise of fake health news has been most divisive and politically salient given the high risks involved for the health and wellbeing of citizens. The effectiveness of medical treatments depends on patients' trust and collaboration in the professional advice they obtain from their care professionals and caregivers. A decline in public trust in expert knowledge leads to an increase in the use of unproven treatments for many illnesses and self-diagnoses. Misinformation poses the greatest threat to patients who suffer from a progressive erosion of their social networks due to diseases that limit their active participation in social life.

The question we need to address first and foremost is what the social and political causes are of the breakdown of confidence in science and the scientific method. What are the main political manifestations of the changing relationship between truth and public policy making? Second, we need to examine the propitious organizational conditions that have contributed to the move towards engagement with society. We will do so in [Chapter Two](#) of this book, when we more directly explore the organizational fragmentation brought about by NPM reforms.

Science has traditionally and historically been the most important counterweight against false statements and manipulations ([D'Agostini and Ferrera, 2019](#): 66). Commentators across different social backgrounds are concerned about 'the crisis of trust' in science and scientific knowledge. In Western liberal democracies, we are experiencing a significant decline in trust in scientific authorities. The attacks against science are organized by groups that advance their own cultural domains and systems of beliefs, such as religious groups, industry groups (challenging the existence of climate change, for instance) and social movements (for example, the movement against the use of pasteurized milk in the United States embraced by famous public figures). These groups hold views against scientific knowledge and defend their beliefs as sacred ideologies that are not subject to analytical and critical questioning. Misinformation, not scientific findings, spread quickly through the internet and social media, such as Twitter, Facebook and Instagram ([Guess et al, 2019](#)). They produce cascade effects whereby people engage with the information without checking the sources and quality of

the claims (Sunstein, 2009; Margetts, 2018). Maurizio Ferrera, in an influential scholarly book, suggests that misinformation spreads almost like an ‘autoimmune syndrome of the democratic formula’ (D’Agostini and Ferrera, 2019: 84).

The breakdown of social trust represents a potential twilight of stable liberal democratic institutions (Bennett and Livingston, 2018). In the United States, the post-truth era was coined with reference to the presidency of George W. Bush by E. Altermann in a famous book entitled *When Presidents Lie* (2004). It appeared first in US public debate where post-truth was associated with pathologies of contemporary political systems and democracies (Margetts, 2018), such as rumours, fake news and political lying. One of the most influential studies on the post-truth era is R. Keyes’ 2004 book *The Post-Truth Era*.

Social media platforms are implicated in the deterioration of public debate and pathologies such as fake news. Are some population groups more vulnerable than others? False analogies, logical fallacies, religious beliefs and ideologies rooted in unrealistic expectations are diffused through social media and reach millions of people. Fake news is defined as distorted or false versions of events that are widely disseminated either for the purpose of disruption or for financial gain (Bistagnino and Fumagalli, 2018).

The problem of declining confidence in science is ultimately a struggle for the legitimacy and cultural authority of science and secular institutions. Gauchat has argued that the legitimacy problem remains understudied and undertheorized (Gauchat, 2010). This book contributes to the analysis of this field of studies by advancing our theoretical understanding of the drivers and causal mechanisms. Some scholars suggest that concern about a crisis of trust in science is associated with the ‘very limits of modernity’ (Yearley, 2000: 105). Ulrich Beck maintains that the public holds the scientific community responsible for the negative externalities of industrialization (1992): toxic waste, plastic in the oceans, climate change, the melting of the Arctic, overuse of drugs, genetically modified organisms, and so on. The public no longer looks to scientists and scientific knowledge to provide common values that improve everyday life (Collins and Evans, 2007). Gauchat demonstrates how trends in public trust in science in the United States have been steadily declining from 1974 until 2010, especially

among conservatives who have lower trust in science (Gauchat, 2010). Political disinformation is also the subject of a study by the Hewlett Foundation (2018) and a mushrooming body of academic literature (Allcott and Gentznow, 2017; Bistagnino and Fumagalli, 2018; Margetts, 2018).

What is the solution to the decline in trust and legitimacy of the scientific community? What can scientists do to rebuild trust? Our point of departure is that the scientific community has a social role and social locations, such as universities, laboratories, research institutions and scientific associations. These institutions are responsible for engaging with the public in the co-production of knowledge. There is increasing doubt among many scholars that the public is sufficiently engaged with scientists (Collins and Evans, 2007; Allum et al, 2008; Moore, 2008). When we refer to a 'scientific community', I am not talking about a group of individuals who are isolated from society and advancing their own wishes. A scientific community is a social project and a social entity that is engaged in the creation of a collective good (Goddard et al, 2000). A scientific community is not a religious church but a self-correcting system whereby we build upon the successes and mistakes of others. As Calhoun argues, the university is responsible for the creation of the public good (2006). The future model of the European university is the 'engaged university' (European Commission, 2015; Mattei, 2018), as Chapter Five will discuss.

In a post-truth era, it is crucial to boost efforts to spark renewed trust in science by stimulating a two-way dialogue with the public by fostering closer interaction between scientists and local communities. The 'co-production' of knowledge is one of the most effective instruments to rebuild legitimacy and effectively debunk fake health news. What are the practical and empirical aspects of co-production processes? The empowerment of users of public services represents a significant paradigm shift in the relationship between science and society. In the medical sciences specifically, the rise of fake health news is a contemporary hazard for human health and wellbeing. A decline in public trust in expert knowledge leads to an increase in the use of unproven treatments for many illnesses and self-diagnoses (Grant, 2009). Cancer care features prominently in the post-truth world, which is dangerous. For instance, the most popular article on Facebook with the word 'cancer' in 2016, which

received more than 1.4 million shares and likes, was a story related to the miraculous effects of dandelion on curing prostate and lung cancer due to its properties of boosting the immune system in 24 hours. In an article in the *Independent*, the journalist Katie Forster discredited this fake news (2017).

The medical treatment of cancer works as long as patients and their caregivers trust the knowledge and expertise of professionals and the scientific knowledge supporting them. Patients' and caregivers' distrust may have two main reasons. First, no information is available to exhaustively explain the clinical condition of the patient. This may increase the patient's uncertainty about the future, with a consequent increase in fear and anxiety that in turn leads to a need for information and a need to look for possible actions (Ravenek et al, 2017). Second, information may be provided to patients and caregivers but may not be understood or memorized because of nonoptimal communication between doctors and patients or because of the emotional state of patients, which impairs understanding (Pravettoni et al, 2016).

Once fake news circulates on social media, it is very difficult to debunk it with fact-checking (Sunstein, 2009). It is challenging to counterbalance bad science with rebuttals and good arguments against fake news. In their book, *The Debunking Handbook*, two Australian academics (Cook and Lewandowsky, 2011) show that rebutting bad science does not work because misinformation is sticky in the brain and difficult to remove using data and real facts.

## **Knowledge systems in a populist era**

In the book, the strategy is to focus on those institutions that have traditionally been at the heart of knowledge systems – schools and universities. Working with schools is one of the most important strategies of many public engagement practices run by academics and scientists who wish to raise awareness in young pupils and arouse their enthusiasm for specific subjects and issues. However, one also needs to be cognisant of the normative frameworks that are embedded and promoted in state-funded schools. Education continues to be a transmission belt for ideological principles and modern values (Halsey, 1997). Ideas about national identity in

Europe have long been forged in schools through the teachings of history, civic education and languages (Tröhler, 2020). These ideas are coherent in Europe with the rise of the modern state, rooted in nationhood and characteristics such as homogeneity, belonging and cultural roots (Nussbaum, 2012). The political community is defined by members of the nation state who are educated in citizenship through schooling. Schools are institutions of knowledge and scientific instruction but also vehicles for the transmission of cultural values, traditional beliefs and identity formation (Mattei and Broeks, 2018). Education has been subject to massive international economic penetration in Europe in the last 30–40 years (Ball, 2012; Sahlberg, 2016). The marketization of education concerns not only Anglo-Saxon systems but also traditionally social democratic ones (Imsen et al, 2016). This process of depoliticization associated with marketization has not made political parties and partisan ideologies irrelevant (Seppänen, 2003; Lundahl et al, 2013). Despite all these policy changes, education remains a politically contested and highly divisive policy arena that continues to mobilize political ideologies, professional groups and their vested interests.

In the literature on the relationship between science and society in the context of marketization and the profound transformation of governance structures since the 1980s, it is slightly surprising how little attention has been given thus far to the strategies taken by radical right populist parties on education (Giudici, 2020, 2021). Unlike the parties of the extreme right, which were often excluded from participation in government (Riera and Pastor, 2021), populist parties in Europe have been making inroads into national governments since the early 2000s (Albertazzi and McDonnell, 2015; Mudde, 2017; Taggart and Pirro, 2021). The study of the policies implemented during their time in government, however, has mainly been limited to those issues that have had a clear electoral yield: migration, law and order and, to some extent, Eurosceptic positions (Minkenberg, 2001, 2018). The limited attention to education issues, however, is an obstacle to understanding the effects of the permanence of radical right populist parties in national political systems in terms not only of policy making but also of political culture and broader understandings of democracy (Urbiniati, 2019). There is no doubt that party ideologies on

education have short- and long-term effects on political socialization and democratic legitimacy.

Radical right populist parties are generally viewed by educators as not having a policy agenda on education and knowledge systems, apart from a vague reference to a mythical past associated with nativism (Mudde, 2007), where a homogeneous people is presented as the precondition and the target of education policies aiming at reproducing models of citizens' socialization that guarantees continuity instead of innovation. Education in general and the role of compulsory schooling in particular also emerge as privileged battlegrounds for the populist opposition between the elite and the people.

Populism is a highly contested concept in political science (Tarchi, 2015, 2018). A limited agreement has been reached on how populism should be interpreted (as an ideology, a political style or a discursive practice). Despite the many differences in the nature and definition of populism, there is some consensus on the lowest common denominator of populism (Mudde, 2004; Urbinati, 2019). In the empirical manifestations of populism, the opposition between the people and the elite is centred on the exaltation of the in-group and the exclusion of the out-group. The defence of the community is built based on the exclusion of the bearer of diversity (Mudde and Rovira Kaltwasser, 2013; Mudde, 2017).

In this regard, we should not forget that Italian compulsory schools and universities are mostly public and run by the state. Schooling, therefore, lends itself to becoming a polemical target in right-wing populist mobilization. Alongside the criticism of political elites' wasteful management of the education system, one can find the traditional populist opposition to the intellectual elites, considered responsible for imposing a 'single way of thinking' (*pensiero unico*) and a standardization in the learning process of citizens. Identity has also always been a key issue in the analysis of the ideology of far-right parties and movements (Bar-On, 2007). The call for a return to traditional values, which accounts for a very large part of the programme platforms of populist parties in relation to family policies, also fits well with populist proposals on education.

Studies on the educational preferences of radical right populist parties are scarce and most often focus on the UK and US cases (Stevens, 2001; Ansell and Lindvall, 2013; Brown, 2021). These

studies are mainly concerned with standardization in education and the need to introduce pro-competitive and pro-choice mechanisms. As some scholars argue (Apple, 2000; Mudde, 2017; Taggart and Pirro, 2021), populist right parties have invested their energy in ‘politics of recognition’ and identity formation in education, rather than equality of outcomes or redistributive issues.

## Overview of the book

The book begins with the need to bring some conceptual and definitional clarity to the term ‘public engagement’, which is used in the policy-making process to describe a mix of norms, practices, political goals and aspirations. It is one of those umbrella terms that have been used to refer to different types of interaction between the public and scientists. The activities included in public engagement practices are extremely diverse and wide-ranging. [Chapter Two](#) focuses on bringing some conceptual clarity with a view to reviewing a wide range of policy frameworks provided by the European Union (EU). Research assessment agencies have worked hard in the past ten years to define what should and should not be included in the public engagement activities of researchers and universities. The discussion in [Chapter Two](#) will contextualize the study of public engagement strategies against the backdrop of declining trust in scientific authority and the general distrust for science fuelled by populist leaders and the post-truth society. It is worth noting that in the book, we are less interested in individual behaviour and specific instances or types of activities; instead, we look at public engagement insofar as it is an institutionalized government strategy and a policy domain, with vested interests, actors, policy instruments and distinct decision-making processes. The book does not narrowly focus on one jurisdiction or individual organization but offers a macrosystem view that captures changes at the national and European level.

[Chapter Three](#) discusses the different conceptualization of citizens’ involvement in the context of market-based environments and organizational models associated with the ‘entrepreneurial state’, initially introduced in the early 1980s in the UK. NPM has created the push towards greater involvement of external stakeholders and the public in the governance structures and internal processes of

public organizations, with an increase of public–private partnerships and growing emphasis on performance and accountability (Pollitt and Boucaker, 2001; Hood and Dixon, 2015). Following a review of the key tenets of the paradigmatic change associated with NPM, the chapter discusses the implications of adopting new governance arrangements in schools, such as Citizen School Charters and school autonomy, as an instrument of the entrepreneurial state, which is free from government controls and autonomous in designing its own strategies, recruiting teaching staff, and engaging with society and communities mainly through citizens’ involvement as customers and external actors.

Chapter Four concentrates instead on the participatory turn in the context of New Public Governance and the conceptualization of citizens as partners of the enabling state (van der Meer et al, 2018). According to this new paradigm, citizens take an active role as partners in both policy and public service delivery. They are no longer the passive recipients of welfare benefits. We will look at the programmatic reforms in the EU aimed at improving the participation and engagement of the public in research and innovation. The discussion will trace the evolution of the relationship between citizens and governments, moving along a trajectory that has transformed their role from consumers in private market accountability systems to co-producers of knowledge (Pestoff, 2018). The chapter explores the changes associated with public engagement and viewing citizens as partners in the process of knowledge production and transmission. The new framework proposed by citizen science is based on the centrality of trust and confidence in the relationships between actors and partners, unlike the competition and contractualization of relationships inspired by NPM and marketization (Hupe, 2022). Public management strategies view citizens and the public in a substantially different way from clients. Citizens enter voluntarily into new collaborative governance arrangements with state institutions, and the relationship between science and society is viewed as an interactive process marked by a high level of hybrid accountability systems (van der Meer et al, 2018; Benish and Mattei, 2020). The chapter will also explore some nontraditional forms of citizenship that have recently gained traction, such as the ‘ecological citizenship’ linked to climate change policies, protecting the environment and the United Nations

(UN) Sustainable Development Goals. Ecological citizenship, as Dobson has argued (2003), is a nonterritorial type of citizenship that emphasizes the duty to protect the environment and engage with climate action over rights. It means caring for others and for the protection of the environment, biodiversity and sustainability.

Chapters Five and Six illustrate the applicability of public engagement in the field of education at different levels, in schools and universities, drawing from contemporary policy challenges such as environmental citizenship teaching (Chapter Five). In search of the ecological citizen, Chapter Five analyses a specific case study in this area of public engagement. It explores the adoption by national governments of a new type of sustainability education in compulsory schooling as an instrument for improving the participation of young people and their families in local knowledge systems that are concerned with climate change, waste management and, generally, environmental sustainability. In the UK, a bill has been discussed since 2019 by Parliament on the adoption of sustainability education in all schools. In Italy, the Italian Parliament passed a law in 2019 that introduced the provision of environmental citizenship education in all schools. As part of a larger research project, the author in this chapter also reports some of the results of a pilot interview project with teachers conducted in local schools in Milan, Italy, from May until November 2022. The purpose is to illuminate some of the concerns with the operational governance of transforming engagement into a meaningful practice beyond an instrument of political convenience. By no means do we suggest that this case study is representative, nor unique; on the contrary, it illuminates the challenges of reconceptualizing the relationship between state organizations, local communities and citizens in the context of public engagement strategies to mobilize young people in the field of climate change. The interviews with teachers indicate the potential gap between the rhetoric of ambitious projects and the reality on the ground, where the operational governance of public engagement becomes more salient and affects the quality of the interaction of schools with families and communities.

Chapter Six is dedicated to the role that universities as independent actors play in the new knowledge systems oriented towards public engagement as an institutional goal. The triple helix model of innovation, developed by Carayannis and Campbell in 2009, has

significantly transformed the strategic position of universities in relation to other stakeholders by incentivizing them to operate as ‘entrepreneurial’ actors (Etzkowitz, 2003; Mattei, 2014) that are able to attract joint ventures with private firms, research contracts with external partners, and diversify their income revenue. The process of adaptation of universities to marketization and financialization demands, not least entailed by the entrepreneurial university model and globalization (Mattei et al, 2023), affects the quality and nature of public engagement with citizens in all its varying forms and implications for the relationship between science and society. The marketization of public services presupposes strong central governments and administrative audits and controls of access to different income streams. How do universities guide processes aimed at promoting democratic citizenship at the local level? What are the effects of the creation of new public engagement initiatives and public engagement programmes for university autonomy? To what extent does the growing commitment of universities to social responsibility and entrepreneurship contribute to local democracy? Is the ‘market logic’ of social responsibility a principle of institutional design that is complementary with traditional university autonomy? If so, under what conditions? These questions will remain with us for a long time, as the world economy and security are rapidly changing.

Chapter Seven will present the author’s reflections on the potential benefits of the new relationship between science and society envisaged in contemporary science policies but also on the risks of governing the process of ‘bringing citizens back in’ in a rather populist and ineffective way, which may do more harm than good to the original aspirations of the public engagement project. Further research and attention are needed on the operational governance of citizen science and what it means to be a ‘citizen’ in the process of democratizing science.

## **Public Engagement: Concept, Practice and Rhetoric**

Arising from individual and localized efforts by scientists and academics to involve the general public in their studies, ‘public engagement’ or ‘citizen engagement’ strategies have recently gained new policy relevance and a special place at the top of government research and science policy agendas. Public engagement activities have slowly become an institutionalized part of research and innovation agencies in the last 10–15 years and key instruments in stakeholders’ involvement in research projects. ‘Citizen science’ policies and related governmental strategies have received ample attention in the public debates, mainly covering individual projects but with scant scrutiny of the programmatic macro-level system of public engagement policies. The micro-level focus is helpful to understand ‘what happens’ on the ground but does not address the normative meso- and macro-level values and assumptions underpinning government rhetoric surrounding public engagement and the adoption of such policies. It is such a heterogeneous group of activities that it has always eschewed any attempts at a coherent definition. This chapter aims at providing some conceptual clarity and an analytical definition of public engagement, which is a now well-established and global practice that shapes the interplay between knowledge production and citizens’ involvement in science and research. Rather than offering a map of individual activities, the chapter focuses on the instrumentality of public engagement’s governmental activities for civic promotion. Public engagement has been viewed as a remedy

to diminishing public trust in science in modern times, as discussed in [Chapter One](#).

A manifesto for public engagement published by the National Co-ordinating Centre for Public Engagement (NCCPE) in the UK broadly defined public engagement as ‘the myriad of ways in which the activity and benefits of higher education and research can be shared with the public. Engagement is by definition a two-way process involving interaction and listening, with the goal of generating mutual benefit’ (NCCPE, 2010). The social impact agenda in the UK was introduced as a brand-new feature in the 2014 Research Excellence Framework (REF). The social, economic and policy impacts contributed 20 per cent of the overall research quality; these impacts continue to be highly pervasive in the most recent REF 2021 and applied not only to research assessment but also to funding strategies. The impact agenda was also adopted by the European Research Council in 2011. For instance, ‘Proof of Concept’ grants, newly created in 2012, are dedicated to follow-up funding to stimulate economic and societal impacts. The heart of the European Commission’s Green Deal (2021) is the public value of creating societal impact for future generations and stakeholder engagement (Zimmermann and Graziano, 2020). In other areas, such as healthcare, the empowerment of patients has become a priority for funding and a new way forward for personalized and patient-centric medicine. Academics, universities, businesses, associations and other organizations have tried to adapt their long-term strategies to serve these purposes and secure ‘end-user’ support by fostering public engagement (Pitman and Berman, 2009; Mattei, 2018).

Widening participation with external stakeholders has become a policy goal in many areas of governmental action and different policy domains. Public engagement is attractive as a method of interaction with the public as it has the potential to generate legitimacy for governmental action and priorities. Since the 2000s, the regime of New Public Governance has taken place in public administration reforms; citizens take a prominent role in organizing the delivery of public services (Pollitt and Bouckaert, 2011). The state becomes the facilitator of collaborative networks and partnerships with citizens that operate on the principle of shared responsibility (Pestoff, 2018). However, some public engagement activities are

increasingly becoming associated with the public impact agenda and focus on generating economic benefits and private value to customers. Thus, these initiatives serve not only the purpose of the democratization of science but also the financialization and profit making of research projects. There is a strong economic argument to support the concept of the enabling state that no longer provides services directly to citizens but co-decides with end-users, and co-produces with other non-state actors. In this chapter, we focus only on social engagement and the interaction between institutions and the public at large. We do not examine commercial economic impact in the area of technology transfers and spin-offs.

In recent years, the scholarly literature on accountability has pointed to new governance frameworks that allow organizations to be responsible not only for internal control mechanisms but also for 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 timely policy area for research on patients' participation and local democracy (Michels and DeGraaf, 2010; Vennik et al, 2016). Horizontal accountability is viewed as a type of direct accountability to citizens (Mattei et al, 2016). It presupposes a lack of trust in government and the existence of several 'stakeholders' in society and the external environment. These stakeholders create pressure on public organizations, which are obliged to account for their activities. They do so via the media, public reporting, public panels or online information. Giving accounts to various stakeholders in society normally occurs on a voluntary basis and has been labelled 'horizontal' accountability. In the academic literature on accountability, 'direct accountability' refers to a form of social accountability in which users of a public service are given the opportunity, more or less formalized, to demand accountability from a service provider (doctors, hospitals, local and regional authorities). There has been a paradigm shift from inward-looking, hierarchical, top-down accountability types towards horizontal or direct types of accountability (Mattei, 2007, 2016).

Patient associations, for instance, provide useful information to patients about available support networks, medical guidelines, policy decisions, social activities and services. They improve patients' level of literacy and contribute to their education and acquisition of knowledge. The aspiration to mobilize members

of the public to conduct or take part in research studies has been embraced particularly by patient organizations that have pushed for so-called ‘patient-centred initiatives’. This is a type of public engagement: patients or participants play a significant role in helping to set research agendas and improving trust and literacy in science. In the academic literature, ‘trust’ is the largest driver of direct accountability to patients, citizens and users of public health services (Caron-Flinterman, 2005). The idea is that patients’ participation in decision-making and direct accountability to them improves the level of trust in organizations and responsibility (Anderson et al, 2012; Kaye et al, 2012). For this reason, in the Netherlands, Norway, the United States and Canada, patient associations are institutionalized in hospitals. The institutionalization of voluntary organizations at the hospital level is a cog in the wheel of organizational improvement (van de Bovenkamp and Trappenburg, 2011). From a comparative perspective, the Italian legal framework does not yet provide strong legal rights to patient associations, whose negotiating power is significantly limited vis-à-vis providers and professionals. In the Netherlands since the 1980s, patients’ engagement has been formalized and subsidized by the government. Patient associations are given a formalized role to act as patients’ representatives and are engaged in goal-setting, mergers, budgeting and accounting, the safety and quality of patient care and assurance issues. In Italy, the study of patient associations has been overlooked, as has the issue of patients’ literacy and voice (Serapioni and Duxbury, 2014; Palumbo et al, 2016). In a way, societal associations become enforced co-producers who take ownership of public services delivery, and co-decide with organizations. Thus, public engagement stops being a voluntary activity, and becomes an institutionalized and almost enforced practice encouraged by governments and service providers.

### **Public engagement: a slippery concept**

One rarely encounters an organization, whether a private utility firm or a large government department, that has not paid lip service to the ‘public engagement’ mission. It has become a powerful label for good governance and ethical responsibility towards some unclearly defined societal good. Under this umbrella term, one finds institutional strategies to improve the participation of

society, to increase the visibility and communication of scientific and technology findings, to reach out to local communities and ordinary citizens, to consult with end-users of services, and much more. What is ‘public engagement’? How can it best be defined and given some definitional clarity in the public debate? Broadly speaking, public engagement entails involving citizens and a non-academic target in the decision-making process. The main idea is that public engagement activities foster interaction between scientists and the public (Rowe and Frewer, 2005). It is intended to engage multiple actors in a network that can also influence policy making and government research agendas. Public engagement has different, at time conflicting, objectives, but its main purpose is to elicit input (in the form of opinions, views, information, judgement) from the public. In this book, we are interested in the societal type of engagement, which involves citizens, civil society and non-governmental organizations (NGOs) from the bottom-up approach. We are less interested in the multi-actor engagement of small and medium-sized enterprises, firms, companies and contractual arrangements in the private sector.

The main assumption behind the move to ‘public engagement with science’ at the turn of the new millennium was that mutual learning arising from the interaction and dialogue between scientists and the public would produce trust in science and enthusiasm for scientific endeavours and research projects (Funtowicz and Ravetz, 1990; Fischer, 2012; Ferrera, 2019). Since 2000, it has become a mainstream international government strategy to alleviate the crisis in public trust. Policy evidence of this move towards public engagement can be found at the European level and the national government level. For instance, the ‘EU Action Plan 2001–2006 on Science and Society’ and the 2021 EU *White Paper on Governance* manifested concerns about the loss of public trust in science. This issue was central to the White Paper. New technologies, public health, and environmental sustainability projects are some of the areas of involvement and mobilization of the public. More recently, the European Horizon 2020 framework programme for research and technology emphasized the centrality of responsible research and innovation, which orients research towards society and a new way of cooperation between science and society. Public engagement makes up the core of responsible research and innovation, and this new orientation was also set out by the EC Expert

Group in 2013. If the public is involved, science and technology policy making is expected to become more legitimate, sustainable and relevant. Public engagement seemingly improves accountability and transparency, and it helps scientists involve society upstream and respond to people's needs, not only to commercial pressures. The objective of public engagement is therefore to provide legitimacy of technologies and contribute to more trusted policies. This is the EU expectation as reflected in the document and legislation for Horizon 2020. The methods and policies of public engagement reflect value systems entrenched in the institutional perspective of the EU, such as inclusive research that is reflexive and responsive to the societal demands of different groups, civil society and interest groups (Funtowicz and Ravetz, 1993). This new 'participatory' turn is value-laden and informed by political institutions at different levels of government.

Science is no longer a closed shop activity between remote scientists, experts and political elites. The 'participatory turn' (Jasanoff, 2003) has started, and new governance settings have been adopted by research assessment and funding agencies. Public engagement is not monolithic and encompasses different methods and policy instruments including consultation, participation and direct involvement in the governance structures of agencies. There is great heterogeneity with regard to the content and geographical scope of public engagement activity (Anzivino et al, 2021). It varies from individual school projects with local communities, national conferences and outreach events to interaction with the general public and scientists' dissemination of their results through new social media platforms. In the public engagement literature, we find a wide range of examples of different methods and local/national practices of public engagement.

Public policy engagement is often included in the definition of the term. This includes activities such as consultations with government officials to formulate and implement public policies and policy programmes or eliciting input from citizens through public initiatives and consultations. However, this type of activity should be kept analytically separate from community engagement, as explained by Anzivino et al (2021).

It is possible that individual academics and professionals have been carrying out such activities for a long time, but the term 'public engagement' was not prevalent in countries such as France or Italy. In

the hard sciences, there is a longer tradition of universities and academics establishing collaboration with external partners and associations or private firms. In the social sciences and humanities, the phenomenon of ‘citizen science’ is more recent. This explains the predominance of the management and economics literature on knowledge transfer and spin-offs and the relatively scant attention to public engagement intended as cultural involvement and public policy influence.

Recently, public engagement activities have extended to practices of *civicness promotion*, as I will call it in this book. These activities are meant to add public value to society as a whole and to elicit information and ideas from ordinary citizens and the lay public to set priorities, design research agendas and problem solving from the bottom. Civicness promotion reflects one of the meanings of collective societal goods (Goodson, 1999).

The author has been part of the Italian government research assessment framework and a member of the Committee on the Evaluation of Impact and Engagement. In the most recent research assessment exercise in Italy, public engagement included the following activities grouped into four clusters:

1. Organization of cultural activities of public interest (for example, concerts, theatrical performances, film festivals, sporting events, exhibitions, and other events open to the community).
2. Scientific dissemination (for example, publications dedicated to the non-academic public, production of radio and television programmes, publication and management of websites and other social channels of communication and scientific dissemination, excluding the institutional website of the university).
3. Initiatives to involve citizens in research projects (for example, debates, scientific festivals and cafés, online consultations).
4. Activities of involvement and interaction with schools (for example, simulations and hands-on experiments and other laboratory activities).

In the Italian research assessment exercise (2015–2019), public engagement activities carried out by higher education and research centre institutions in Italy have been evaluated according to four criteria and indicators (ANVUR, 2020), as discussed in the following sub-sections.

*Social, economic and cultural dimensions of impact*

The significance of the impact of public engagement activities can be understood in relation to the change produced by the case study with respect to its starting situation or enrichment for the benefit of the public, the community and society in relation to economic, social and cultural dimensions.

The economic impact refers to improving the ability to organize and manage events and activities in terms of increasing financial revenues or reducing expenditure, greater accessibility and usability by beneficiaries, institutionalization and consolidation of initiatives.

The social impact translates into the creation of a process of exchange with all social actors to overcome the idea of closed academic knowledge and to return a different image of it. It also refers to change in terms of civic and territorial participation activities, to the construction of networks with other institutions and to the contribution in terms of equal opportunities and inclusion (disability, poverty, gender, and all situations that generate inequalities and vulnerabilities).

The cultural impact, understood as the overall value generated by the case study, is able to induce a different attitude/awareness in people and/or in the community through, for example, the number of audiences/people involved and the innovativeness of the initiative.

The evaluated entity may use as indicators to document and quantify the economic impact the funding and involvement of third parties, the continuity of action, the ability to attract funding, sponsorships, donations, evidence produced from the presence of monitoring and evaluation tools, the social impact through, for example, the range of action covered by the initiative, the number and type of users involved, the presence of institutional partners/sponsors (including schools, if co-organizers), coverage by mass media (newspaper, TV, radio, online, social media), the cultural impact through the degree of multidisciplinary, and the ability to connect scientific and social knowledge of different backgrounds in a multidimensional and multiepistemic perspective.

*Relevance to the reference context*

The reference context is defined by the evaluated subject, in a dual way, or with reference to the internal environment (for example,

linked to the strategies, investments and activities carried out by the organization) and the external environment.

The impact may be located in the reference territory for the benefit of the local community, or it may be more extensive at the European and/or international or national levels. The evaluation is conducted by taking into account the importance of the case study, which elicits the specificity of the requested intervention with respect to the starting context or clearly highlights the interaction of the institution with the territory in a two-way process.

The added value for the internal context is represented by the involvement of all components of the institution that increase its sense of belonging and improve its degree of involvement, behaviours and habits to facilitate the achievement of the objectives of the institution and to enhance human resources.

For example, among the indicators that can be taken into consideration, there is the possible participation of external *partners* (in terms of both financial and human resources), such as the interception and interpretation of social needs, how the increase in awareness in the territory of the positive role played by the institution in the reference territory has been determined, and the wide participation of teachers, students or teaching assistants in public engagement activities.

### *Added value for beneficiaries*

The activities carried out by public engagement will be able to generate positive feedback in the potentially wide and diversified audience of subjects inside and outside the institution. In addition to the main outcome, additional outcomes that are relevant and/or of direct interest to the recipients of the initiative must be verified.

The evaluated subject may use as indicators (for example) the presence of additional outcomes, significant and lasting outputs or particular categories of beneficiaries.

### *Contribution of the proposing structure, enhancing the scientific aspect where relevant*

The qualitative and quantitative contribution made by the institution to the case study will be evaluated by considering,

where relevant, the scientific aspect. The links with the scientific activity of the institution must be documented in a quantitative and/or qualitative way.

The quantity and quality of the contribution of the proposing institution are taken into account in terms of resources (human and financial), legal or support in relation to the conception and implementation of the described activity. Due account will be taken of any elements of significant change within the institution to which they belong in relation to the case presented.

The financial and human resources involved will be taken into account, considering all types of staff involved (including support offices and, where present, students). In addition, elements of the interdisciplinarity of the initiative and the (demonstrable) link with research activities of the structure (not necessarily temporally close) will be taken into account. The link with research can also be demonstrated through the scientific production of researchers belonging to the proposing structure provided that it is relevant and consistent with the case study presented.

As for the indicators, by way of example, the following will be considered: the total financial resources committed; the relevance of external funds; own financial resources; the number of staff involved (academic for universities, researcher and technologist); the involvement of the *Personale Tecnico Amministrativo* (technical and administrative staff); student involvement; interdisciplinarity; popular publications; the relationship between the initiative and the institution's research activities (temporally not close but demonstrable); any support from the offices of the structure (for example, legal offices); and the outcome that introduces a qualitatively significant change in the structure.

## Conclusions

The American scholar Jasanoff coined the term 'participatory turn' to identify the move away from the 'public understanding of science' and one-way 'communication' with the public towards a fundamentally new governance of knowledge systems in the 1990s connected to the public crisis of trust in genetically modified plants, 'mad cow disease' and debates on biotechnologies, nuclear power and other issues. It is now well documented and mainstream that

science as a policy and as a practice has adapted internationally to this move by using new public engagement methods and activities. Thus, the discussion of the role of the public in science and technology has moved away from the technocracy argument predominant in the 1970s and 1980s.

In this chapter, we have emphasized and conceptualized the predominantly *political* dimension of public engagement policies across the EU, particularly as it concerns issues of legitimacy and trust. The relationship between science and society is increasingly shaped by partnerships with stakeholders aimed at supporting citizens' engagement and societal demands (above and beyond commercial interactions purely with industry and businesses).

The EU's *White Paper on Governance* in 2001 (European Commission, 2001a) and the most recent strategies regarding responsible research and innovation point to a new frame of citizen engagement in science policy making as a way to replace the traditional 'public understanding of science' deficit model (Nowotny, 1999; Sutcliffe, 2011). The overall objective is to democratize science, particularly with regards to the environment, new biotechnologies, artificial intelligence assessment, and other critical policy issues. An analysis of policies across Europe shows that the public engagement turn is now fully established and institutionalized in government departments and universities. In higher education, for instance, the majority of universities have set up public engagement units and divisions at the central administration level aimed at providing support and guidance to academics and departments. Organizations have adjusted internally to this new participatory turn by revising old communication strategies, internal governance structures and the public encounter with citizens.

However, it is unclear whether the remedies proposed to improve public trust have been effective and meaningful. There is growing scepticism regarding how public input is used, processed and effectively taken into account in the research decision-making process. Before we explore the challenges and possible risks of public engagement, the [next chapter](#) looks at the historical precedents that created the contextual background for rethinking the relationship between citizens and the state in a neoliberal fashion, guided by markets and the ideological notion that the entrepreneurial state would improve the efficiency of public services.

## The Entrepreneurial State

In this chapter, I will discuss the early days of the transformative changes that have impacted public administration systems and the delivery of public services in order to conceptualize the involvement of citizens as customers. The purpose is to compare the ideologies of managerialism in the 1980s, driven by NPM, with the New Public Governance framework sustaining ‘citizen science’ since the 2000s. Toward the end of the 1970s and with greater intensity from the mid-1980s, many developed countries under the pressure of budget deficits began to develop new thinking on the public sector and its management, with a growing emphasis on output legitimacy and performance (Pollitt and Bouckaert, 2011). Beginning in the Anglo-Saxon world (Hood, 1991), a radical process of government transformation has spread to other countries, including those with different administrative cultures and traditions (Laegreid and Christensen, 2013). Among politicians, practitioners and researchers of public administration it has acquired the general identity known loosely as NPM. This chapter aims at explaining the context of citizens’ involvement in this market-based and choice-based environment, with a view to demarcate this from the contemporary participatory turn and civic turn which we will discuss in the [next chapter](#).

Public engagement practices and citizen initiatives have scaled up in the last three decades from localized pilot experiments, oriented towards local communities and specific target groups, to fully fledged large-population projects, not least for the development of information and communications technologies and the big data society. This move from contextualized activities to national

government agendas required the creation of new and dedicated government offices, and dedicated bureaucrats within public organizations (the so-called ‘public engagement offices’). The institutional change that has occurred on a global scale and across different policy domains has revolutionized the traditional public administration model in ways that are transformative and possibly irreversible. In order to capture the transformative potential of the institutionalization of public engagement, one needs to explore first the origins of the ‘entrepreneurial’ state and the contractualization of the relationship between the state and citizens in the 1980s. In other words, to capture the innovative impact of the participatory turn since the 2000s we need first and foremost to reflect upon the ‘old’ legacies in a historical-institutionalist approach.

NPM is not a single theory but, rather, a blend of normative ideas and recommendations borrowed from economics literature on public choice<sup>1</sup> and the most recent wave of business managerialism, and introduced into the public sector by management consultants. In the early 1980s, several analysts produced similar accounts of NPM, but one ‘caught the public imagination’ (Foster and Plowden, 1996: 43), namely Osborne and Gaebler’s *Reinventing Government*.<sup>2</sup>

Administrative reform has been carried out in many West European countries. But in all of them at different times and at different rates NPM ideas have become the standard for reform of the public sector (Hood, 1991; Hood and Dixon, 2015). Guy Peters argued that there is a widespread diffusion of administrative innovations (Peters, 1997). In particular, he identified Britain as the major ‘exporter’ in Western Europe of ideas on administrative reform, such as the Financial Management Initiative and ‘Next Steps’.

This chapter defines the key principles of the NPM model of *entrepreneurial government* in order to provide the necessary basis for understanding the institutional and contextual conditions that favoured the adoption and spread of public engagement practices and strategies centred around the interaction of the state with the external environment (Hupe, 2022). A critique of these principles will also be included in the discussion in order to avoid an over-enthusiastic approach towards NPM solutions to the inefficiency of the public sector. The concepts engendered by ideas of consumerism, the development of ‘government by contract’,

performance management, and the emergence of internal markets, all generate serious analytical challenges. Many of the problems confronted by NPM result from the attempt to apply private-sector approaches to the public domain regardless of the differences between the sectors.

The second part of this chapter discusses the case of the reception of NPM ideas in Italy, a country outside the Anglo-Saxon environment and whereby the traditional welfarist state has been predominant in education. The reform of education in Italy in the 1990s adheres to NPM recommendations in its participatory mechanisms and citizens' engagement. Enhanced involvement of students and families through empowered 'collegial boards' will help schools to understand the needs of families and of communities in general; education must be linked to social needs and must respond to societal actors and their demands. The NPM approach was an attempt to 'get closer' to citizens by means of decentralization, customer complaints, satisfaction of their demands and so on. In this vein, the adoption of the Charter for Education Service puts citizens at the centre of the policy change. The rights to education, equality, participation and efficiency are all mentioned in that document.

## **The New Public Management**

The need for a new approach to public administration derived from the economic imperative to reduce the public deficit. Fiscal crises, in particular, have triggered the process of administrative reform in the public sector.<sup>3</sup> These have arisen in most advanced economies because, from 1945 until the late 1970s, and in many cases until the mid-1980s, public expenditure and taxation tended to rise more quickly than income as a proportion of gross domestic product (GDP). Foster and Plowden consider that the relative growth of the public sector (that is, the change in public expenditure as a proportion of GDP), from 1950 to 1975, in the UK showed an increase of 7 per cent, in Sweden of 15 per cent and in Italy of 6 per cent (Foster and Plowden, 1996: 3). By the mid-1990s, public expenditure/GDP ratios expressed as percentages were 44 per cent in the UK and 50 per cent in Italy.<sup>4</sup>

Reducing the public deficit has proved a difficult task in many countries, and certainly in Italy, because an important component

of the political legitimacy of the government lies in its support for social welfare programmes. In order to retain public confidence and electoral support, therefore, national governments have sought to secure improved efficiency of services as an alternative to expenditure increases, or to offset the effects of cuts.

When discussing the impact of NPM and its scope, one must keep in mind the political purposes behind ostensibly technical and administrative measures. Not surprisingly, the immediate response to fiscal crisis came in the form of short-term expedients, allowing politicians to pass the problem on to their successors in order to allow their own re-election (Foster and Plowden, 1996: 18). Cuts in capital expenditure, such as in transport investment, especially roads, were the most common economic measure taken. However, where cuts were more difficult, the only genuine way to reduce the budget deficit, while maintaining the same level of quality, was through improved efficiency.

At the heart of the arguments in favour of NPM lies the belief in the market principle as the most effective model for any public sector organization. The model is said to facilitate policy change and innovation and has been seen by some politicians to have 'revolutionary' potential.<sup>5</sup> While NPM certainly constitutes a powerful source of change, however, its difficulties and controversies should warn against over-enthusiastic expectations.

The prescriptions of NPM, as articulated in *Reinventing Government* by Osborne and Gaebler (1992), include: the separation of the purchaser role of public services from the provider role; the growth of contractual or semi-contractual arrangements; accountability for performance; flexibility of pay and conditions; the separation of the political process from the management process; the creation of internal markets or quasi-markets; an emphasis on the public as customer; the reconsideration of the regulatory role of the state; and a change in the general intellectual climate. Each of these prescriptions will be discussed individually in terms of its implications and problems.

The new approach separates policy making, in the hands of politicians and the higher echelons of the public administration, from the delivery and production of public services, which can be devolved to independent agencies or even the private sector. This assumes that such a separation allows civil servants to become

defenders of the public service rather than of the interests of providers. In other words, the role of the public administration becomes not to manage the daily provision of public services but to provide general guidelines and standards in the interest of the citizens or 'clients' and civil society.

One of the most important consequences of this distinction between 'steering' and 'rowing' is the extension of privatization and the growth of contractual arrangements with NGOs or private industry (Osborne and Gaebler, 1992). In opposition to the traditional hierarchical control of public organizations, internal contracts or semi-contractual arrangements are established. Civil servants or ministers act as agents for the ultimate client, the public, in a hierarchical mode of coordination. They regulate the providers of services by setting standards and requirements. For example, as Stewart and Walsh explain, similar contractual arrangements are being used to manage relations between social services departments and voluntary and private sector providers (Stewart and Walsh, 1992).

Yet what is meant by 'separation' is ambiguous, for the term does not specify the nature of the relationship between the civil servant and the provider of the service. It could be one of customer and supplier, principal-agent or command. It also leaves unclear whether these contracts have features distinct from those of ordinary commercial contracts. That would depend on the extent of competition and the absence of monopolies. Another problem with the separation of provision from production of public services is the pre-existing government structure, which partially determines the reaction of national institutions to policy change.

Another important principle of NPM is the emphasis on setting clear targets, meeting objectives and performance assessment. Once responsibility for service provision has been devolved to agencies or private managers, the resulting arrangements require accountability for performance. For example, schools will be held accountable for achieving the national curriculum. Decision-making in the public sector should be directed not only by objectives but also by outputs. In order to assess and evaluate outputs, indicators of efficiency and precise means of measurement are required. In particular, client satisfaction is one of the most valuable measures of output.

The separation of policy making and politics from the management process is another theme of NPM. We have mentioned

the importance of contracting out. That measure aims in part to 'lighten the burden' on the public administration. Where NPM has been applied, the central departments, the ministries and the local authorities no longer engage in either policy making or service provision (Butler, 1994). For example, they now buy legal services from outside suppliers and have outside entities to handle staff recruitment. An example of this separation of functions is the reorganization of the British National Health Service into two separate bodies: the Policy Board and the Management Board. The former has responsibility for strategy, the latter for all operational matters.

It is important to notice, at this point, that NPM is not an anti-government philosophy. Even in the most advanced forms of managerialism, policy making and control remain the responsibility of the political institutions. NPM emphasizes that management should be devolved to private and public entities on a competitive basis.

From these considerations it follows that one of the effects of NPM implementation has been to replace a single provider with a plurality of potential providers. The expectation of the advocates of NPM is that the efficiency of the public sector will improve with the introduction of competitive tendering. In education emphasis is placed on the financial and organizational autonomy of individual schools from local authorities through 'opting out'.<sup>6</sup> Parents and students, the 'consumers', have a greater choice as a result of greater autonomy of schools.

The introduction of market logic is probably the most controversial prescription of NPM. Stewart and Walsh argue that what are being created are not markets but quasi-markets (Stewart and Walsh, 1992: 507). In fact, the markets are not consumer-led but provider-led, in the sense that public authorities make choices on behalf of the public. Moreover, even where consumers have a choice, as in education, the situation is not a pure market situation because no question of direct payment exists and only a limited number of places are available.

A precondition of the 'marketization' of public services is a transformation in the relationship between the state and the users, from one based on the rights of citizens to one based on the choices of consumers. The emphasis is on individual consumer rights to

choice and to quality, with little reference to individual duties as citizens.<sup>7</sup> Accountability is seen as market-based. The public has acquired rights to services through the payment of taxes. However, it is difficult to assess what consumers really want. In the United States, the politicians representing their constituencies and various interest groups are assumed to be the most reliable interpreters of consumer wishes. However, their interpretation is unlikely to be impartial or objective. As Foster and Plowden correctly argue, ‘without some effective method of deciding what consumers want, one cannot simulate consumers’ sovereignty as in a competitive market’ (1996: 48).

NPM claims that to make the public sector more efficient, flexible and motivated requires the decentralization of decision-making and the granting of operational independence to local authorities. That claim assumes that a faraway central agency or department is less likely to give customers the services they want than a local agency, ‘owned’ by the community, and thus able to know and serve their needs better. Decentralization is thus closely linked to the principle of community engagement. The danger of this prescription lies in the assumption that ‘local’ always works better than ‘central’, for inefficiency can in fact be reproduced at the local level.

## **A critique of New Public Management**

In general, we can assert that, if management changes are based on an uncritical adoption of approaches developed in the private sector, problems arise. Ranson and Stewart identify the different conditions and purposes of the public and private domains (1988). Certain characteristics distinguish the public sector model: collective choice in the polity; a need for resources; openness in public action; the equity of need; the search for justice; and citizenship. The distinguishing characteristics of the private sector are quite different: individual choice in the market; supply and demand; closure for private action; the equity of the market; the search for market satisfaction; customer sovereignty; competition as an instrument of the market; and exit as its stimulus. Ranson and Stewart argue that activities are placed in the public sector in order to realize distinct collective values, which are established out of differing interests. Moreover, citizenship needs to be established

through political processes, although these are perceived by the advocates of NPM as a possible obstacle to effective management. Stewart and Walsh succinctly summarize this line of criticism: 'one of the dangers of the emerging patterns of public management is that approaches that have value in particular situations are assumed to have universal application' (Stewart and Walsh, 1992: 512).

Hood and Scott develop a different type of criticism in their analysis of bureaucratic regulation (1996). Their central hypothesis is that the apparent 'deregulation' of public sector bureaucracies has been accompanied by an opposite set of movements which, in terms of institutional and policy development, may be characterized as 'reregulation'. They argue that, if NPM is further pursued, bureaucratic re-regulation will move 'up-group' and 'up-grid'.<sup>8</sup> The fragmentation of monolithic entities into multiple units with separate budgets, the encouragement of entrepreneurial behaviour, the decentralization of authority and the relaxation of rigid pay and conditions all work to reduce the regulatory power of central agencies. Moreover, the move towards a contractual style of service provision weakens the traditional public-law mechanisms. The unexpected effect of deregulation is that 'governments are increasingly worried about the danger of "chaotic competition", which destabilises markets' (Wright, 1993: 251). Wright comes to a similar conclusion, that most countries undergoing deregulation eventually experience a tightening of the regulatory framework and strengthening of regulatory agencies. Therefore, NPM is expected not to eliminate but to alter regulation, from a traditional, informal system to one marked by increasing reliance on formal contracts, imposition of more complex accounting structures and an 'audit explosion' (Hood and Scott, 1996: 337).

Hood and Scott discuss three major relationships between NPM and re-regulation: a causal relationship; a common 'bureau-shaping' relationship;<sup>9</sup> and a compensation relationship. The first one could be a valid explanation of the direct relationship between NPM and re-regulation because the organizational disaggregation integral to NPM is also, although perhaps unintentionally, a precondition for more juridified arrangements for handling disputes. As Wright observes, administrative regulators belong to a fragmented world in which decisions taken by one agency have a negative spill-over effect on other agencies. This leads to conflicts of interest among the

regulators that can be solved by juridification. Such a development, however, seems paradoxical, given the ineffectiveness of externally imposed formal rules.

The Dunleavy (1991) explanation suggests that top civil servants wish to shift the regulatory role to specialized units because that role is no more attractive to them than is the direct management of operations. As already observed, regulation is not attractive because it involves much conflict. Top bureaucrats apparently prefer the more glamorous world of politics. However, passing bureaucratic regulation to an agency at arm's-length carries with it the risk of losing control in areas of essential importance.

The third explanation, built upon Dunsire's claim, is that the two developments – the NPM deregulation and re-regulation – represent a compensating adjustment in bureaucratic control: 'incompatible pressures internalised in the bureaucracy may be being replaced by incompatible pressures institutionalised in outgroup regulatory units' (Hood and Scott, 1996: 340). If this conclusion were correct, NPM would not be able to change the traditional structure of bureaucratic control. Rather, it would simply shift control to another level.

In addition to Hood and Scott, Grant Jordan has been particularly critical of *Reinventing Government* by Osborne and Gaebler (1994). Jordan's basic criticism is that the study lacks any semblance of scientific analysis. It is simply 'a body of empirical knowledge, short of an established discipline' (Kay, 1993: 358). Jordan also claims that the book is pseudo-practical: it appears to give practical advice to civil servants, but there is no guidance on how to put its recommendations into practice. He observes that Osborne and Gaebler take a simplistic view; they have a 'see no problems attitude' (Jordan, 1994). They do not take into account the conditions of and the need for the traditional model of bureaucratic control, which is to inhibit corruption and mismanagement. Inconsistency abounds in the book. For example, the authors claim that merit pay for individual teachers merely sets teacher against teacher and undermines morale. But they recommend merit pay for schools.

Jordan concludes that Osborne and Gaebler's claim that the public sector can be entrepreneurial is not consistent with their claim that 'private' is always more desirable than 'public'. They assume that public is bad in any case. The issue should not be whether and why one system (that is, the public) is a total failure but under

what circumstances, if any, the system failed to produce acceptable results. In his closing remarks Jordan is particularly severe: ‘in “cherry picking” success stories the book is unrealistic; this approach describes successes but does not explain them’ (1994: 2010). Reality is indeed more complex than Osborne and Gaebler depict, for the real world involves trade-offs among desirable goals, which require hard decisions.

### **The case of the adoption of New Public Management in the 1990s in Italy**

Many NPM prescriptions can be understood as ideological attempts to change the predominant political and administrative culture of public services, dominated by the traditions of centralization and hierarchy. The models of the market and commercial and private culture are influential: ‘if we were to select one word ... to capture the essence of the changing behavior of utility management, particularly in Britain, it would be customer’ (Richardson, 1993). However, change in culture is slower and more difficult to implement than change in procedural and formal mechanisms. The government encounters resistance from the trade unions, for instance, and associations as defenders of that tradition and the status quo. The process of policy learning and cultural change will be discussed in this part of the chapter, where we take the case study of adoption of NPM in the Italian education system.

This case study of the reform of education primarily analyses high school education. This section does not illustrate the technical aspects of the reform, most of which are juridical minutiae. Rather, it focuses upon those aspects of the reform that relate to NPM ideas, mainly participatory mechanism. While those are few in number, they have a significant impact on education governance. The purpose of this section is to determine the extent of the adoption of NPM in the education policy domain outside the Anglo-Saxon environment. In addition to discussing the general guidelines of reform along NPM lines, we will focus on its specific objectives and on the policy instruments chosen to implement them.

The major theme of the reform of education in the 1990s in Italy has been the autonomy of schools. By ‘autonomy’, the reform refers to devolved responsibility for the organizational, educational and

budgetary management of individual high schools from the central administration of the Ministry of Education and its field services, the ‘Provveditorati agli Studi’, to individual schools. This process is in line with NPM ideas of decentralization of responsibilities.

We have discussed the importance of the autonomy for schools as a precondition for implementing educational initiatives and local community public engagement elsewhere (Mattei, 2018). This policy instrument is meant to improve quality and efficiency by freeing headmasters to manage schools in accordance with the real needs of families and communities. Autonomy in general is consistent with the NPM literature on the ‘hollowing out of the state’ (Rhodes, 1994) or ‘lightening the burden’. The state is no longer involved in daily decisions or the direct management of service provision. The NPM principle of disaggregation into smaller and independent units is reflected in the allocation of responsibilities to schools. Such decentralized mode of governance is coherent with a bottom-up governance style.

### *Policy legacy: the old system of education*

The concept of an ‘educating state’ emerged with the political unification of Italy. Evidence of the concept can be found in the words of the famous historian and Minister of Education, Francesco De Sanctis: ‘the state does not have to remain neutral and indifferent. The state does more than give the general guidelines of education. Its mission is to be the head and guide of education and knowledge for the country’ (cited in Cassese, 1991). From this conceptual basis derive the major laws regarding the centralization of education: the Casati Law of 1859 and the Gentile Law of 1923. Since the first years of the Italian Republic, the state has not only organized and managed the educational system but also been an educator itself. However, in the years of fascism, dissenting voices arose against the extreme dirigiste approach to education. These were the same voices that called for more private participation in the school system, such as religious private schools.<sup>10</sup> Nevertheless, they were a minority.

Throughout the postwar period, the centralized and highly hierarchical model remained in place, although some significant changes occurred. The 1948 constitution introduced the right of freedom of teaching and of establishing private schools.<sup>11</sup> There

are two sets of freedoms in the constitution: freedom of schools and freedom in schools (Cassese, 1991). The former refers to the freedom of schools to organize and manage their responsibilities; the latter refers to the freedom of teachers in their activities. In this second stage in education, the minister remained primarily in control, but a clear distinction developed between the management of schools and teaching.

Therefore, since the unification of Italy, education has been dominated by an extremely centralized system of public administration, 'even more centralised than the French' (Cassese, 1990). During the fascist period, the Ministry of Education, like most of the central administration, was strengthened. Its size was huge, with 300,000 employees in the middle of the century (Cassese, 1990). Only during the 1970s did the Ministry of Education begin to transfer some administrative responsibilities to the local offices of the 'Provveditorati'. These field services were given responsibility over monitoring, personnel management of primary schools, and the general organization of the school system in local areas. In the 1970s, a few responsibilities, such as professional training, were transferred to the newly created regions. The state bureaucracy of the ministry also began to worry about the transfer of a wider range of responsibilities to newly created ministries, such as the Ministry of the University and Research and the Ministry of Culture.

The reform of education in the 1990s was inspired by a different approach, considering the state as regulator. According to this model, the state does not need to directly organize and manage the daily activities of individual schools in different local areas. Instead, the main state responsibility is to regulate relationships between teachers, on the one hand, and students and families, on the other. The centre sets the national standards but leaves the management of decision-making to schools. The state-regulator concept has been promoted in other policy areas, such as the National Health Service.

Some argue that the state as regulator, instead of direct manager, does not guarantee equality in education. It would be impossible to ensure the same level of service in regions with educational systems of differing qualities. The poor areas of the South would be penalized by the 'loosening' of state control. However, statistical data confirm that state control is not a guarantee of equal distribution in quality; rather, the opposite appears true.<sup>12</sup> Cassese argues that 'it is

not with a Napoleonic bureaucracy that equality is guaranteed, but with a more competitive system' (Cassese, 1990: 216).

The approach to education as a service, akin to one provided by a private firm, is in line with NPM. Cassese complains about the gap that exists in Italy between demand and supply, that is, between social and economic needs and Italian teachers' emphasis on the 'development of conscience'. This results in little interaction between the real world and the educational system. To close the gap, the educational system must work in accordance with the demands of society. Therefore, Cassese stresses the need to consider education as a service and concludes that, as a service, it could be provided for a fee.

Traditionally, various factors have been proposed to explain the impossibility of devising adequate parameters to guide management policies, including the large size of the workforce and its structure, the dense distribution of its operational units, and the nature of the service delivered (Romei, 1993). In Italian schools, according to Romei, two conceptions persist: the first addresses education in terms of the unique relationship between pupils and teachers, while the second regards the school as part of the public administration and thus subject to formal controls. The problem is that these two approaches coexist without interaction between them. In practice, this means that teachers are not easily controlled by the administration or accountable for their activities. It is extremely difficult in such a system to set parameters for performance and assess the quality of teaching. Teachers appeal to their constitutional prerogative when refusing to be subject to performance assessment: 'As pure art, teaching cannot respond to the logic of performance and to the responsibility for it' (Romei, 1993: 332). The school as art approach leaves great discretion to individual teachers, whereas the school as bureaucracy invokes respect for formal rules imposed by the Ministry of Education. Both conceptions have been part of the traditional model of education.

### *From hyper-constrained to autonomistic governance*

Decentralization in Italy has transferred important powers to the regions, provinces and municipalities, including powers in the area

of education. Regions have responsibilities for rationalizing the network of schools, including the power to abolish or aggregate schools. The municipalities have responsibility for the safety and maintenance of buildings and the use of machinery. Nonetheless, the reform of education hardly represents a retreat of the state.

The Ministry of Education has retained the responsibility for distributing financial and personnel resources to schools, in direct contradiction of the NPM principle. Therefore, the government's motivation for decentralization does not conform to that of NPM. Indeed, in the Italian case, decentralizing means duplicating. It implies reinforcing bureaucratic control over schools. The system of two parallel administrations – regional offices and state field services in the ministry – limits school autonomy even further.

A real process of decentralization would be a positive change for schools because the local authorities are in a better position to understand the needs of the local communities. Moreover, the regions have more money available to spend on infrastructure. However, decentralization, as it has been pursued in Italy, has a different rationale from autonomy.

In the process of transfer of state powers, whether the individual school or the region receives the new responsibilities makes a huge difference. Law 112 of 1998 (Bassanini Two) has decentralized a wide range of responsibilities to the regions and local authorities at the expense of schools. For example, Article 138 has given the regions the power to organize and rationalize the distribution of schools and responsibility for professional training. Article 139 confers on the municipal authorities responsibility over the use of facilities and control over the 'collegial boards', the education of professionals and other activities, all of which would seem better served by individual schools. The allocation of powers to the local authorities is likely to create ambiguity and confusion at the implementation stage, when schools are supposed to realize their autonomy.

The confusion of responsibilities and lack of co-ordination between different levels of administration does not originate solely from the Italian educational system or its reform effort. It seems to be the result of the NPM idea of disaggregating state functions into smaller units with specific responsibilities. In the Italian case, however, the ambiguities and inconsistencies are

exacerbated. To delay granting autonomy to schools by devolving the same function to local authorities first defeated the reform from its inception.

We are therefore led to conclude that, in Italy, the autonomy of individual schools had limited impact on public engagement and the involvement of local communities. On the contrary, decentralization has created a duplication of state control over what were supposed to be emerging autonomous schools. Italian decentralization has distorted the rationale of decentralization of responsibilities to smaller and independent units or executive agencies as advanced by NPM. The processes of granting autonomy and decentralization could have been mutually reinforcing. In the Italian case, they were allowed to oppose each other.

Another inconsistency with NPM can be revealed in the reform of the headteacher's role, initiated by Law 59 (Bassanini) of 15 March 1997. The headmaster was granted managerial responsibilities and greater discretion over the budget and administration. However, the Bassanini reform was not bold enough. As the 'manager' of a public service, the headmaster is responsible for the achievement of specific targets and operates under the logic of private sector management, the maximization of profits and cost-benefit assessments. However, even though the headmaster of an Italian school has acquired new responsibilities, both organizational and administrative, she remains a civil servant. She is selected through a public competition (*Concorso*) and has a guaranteed job, regardless of her achievements. The contract of employment is the one established by Law 29 of 1993 regarding the *dirigenza pubblica* (public sector managerial group of senior civil servants). Another implication of this type of contract is the inability of the headmaster to hire and fire people according to the needs of the school or to their performance. The idea of managerialism, borrowed from NPM, is entrapped in the rigidly determined and legally bound Italian system of pay and conditions of employment.

The logic of the private sector, based on competition and efficiency, is not an integral part of the education reform. The Italian interpretation of NPM ideas excludes the possibility of such an interpretation of personnel policy. There is no mention of the involvement of private actors in the field of education. There is no provision in the legislation, official documents and

public speeches of the Minister of Education for the creation of an internal competitive market for education, which would entail greater choice for students and families.

Unlike NPM, the Bassanini reform has not solved the problem of incentive structure. On the contrary, when a school is performing better than others, the principle of equality precludes rewards and incentives. Inefficiency is not widespread. There are ‘good’ schools where the standards of infrastructure and teaching are better. The problem is that these schools and the teachers do not receive incentives. The distribution of incentives – a ‘fund of incentives’ already exists in the present system – is based on the principle of equality. This is paradoxical but reflects the strong bias against competition and market-oriented administrative features, such as pay for performance.

The principle of equality is not abandoned but reinforced by the reform of education.<sup>13</sup> Accordingly, the public financing of education has to level the playing field by avoiding unequal allocation of funds, including through the reward of good schools. Competition among schools is thus not permitted. It is difficult to imagine how the government is going to pursue the aim of improved quality if even a semblance of competition is opposed *a priori*. This resistance to the logic of rationalization of resources and efficiency is one of the greatest differences between NPM ideas and those underlying the Italian education reform.

### *Reform of the head of school as manager*

Most of the administrative reforms regarding education in Italy are participatory, and not market-oriented, to use Guy Peters’ classification (1997). There are three sets of participatory reform: quality management, decentralization and citizens’ charters. The market-oriented reforms are pay for performance, internal markets, programme review, performance contracts and agency creation. The only market-oriented reform introduced in Italy is programme review, which was adopted in September 1997, with the creation of the Comitato Nazionale Tecnico-Scientifico di Valutazione (National Technical-Scientific Board of Evaluation). Minister Berlinguer expressed his enthusiasm for the establishment of this new institution.<sup>14</sup>

The most significant instrument of reform is the new role assigned to the headmaster. In the past, the headmaster was an employee of the state, as teachers are, with no effective power of decision-making. Article 21, sub-section 16, of Law 59, 1997, declares that, ‘in respect of the constitutionally guaranteed freedom of teaching, the qualification of “public sector manager” (“*dirigenza pubblica*”) is conferred upon the headmaster only after autonomy has been granted to individual schools’.<sup>15</sup> The law elaborates the powers of financial and human resource management, along with the headmaster’s new responsibility for setting and achieving clear targets. In practice, the headmaster is no longer required to seek authorization from the Ministry of Education for every single decision affecting the school.<sup>16</sup> Importantly, the new managerial role will be granted only upon the realization of school’s autonomy. Until then, it will not be operational. The role of manager is inspired by the public management literature reviewed in the first chapter. The manager operates under budget constraints and is responsible for the achievement of specific objectives of quality and efficiency. Most importantly, the headmaster-manager has the power to use factors of production at his discretion. This implies hiring and firing teachers and administrative personnel according to the demand and to their performance.

The managerial role of the headmaster is accomplished not only through the implementation of technical and organizational measures but also through a ‘new culture’. The traditional instrument of state control was the ‘*circolare*’, a paper with the value of law formulated by the Ministry of Education and ‘circulated’ all over the country, regardless of local differences. The new culture is based on the headmaster’s freedom to interpret the law. Accordingly, she is free to take initiatives and given the means to pursue them. To prepare headmasters for their new role, training and professional courses would be organized on a national basis. For that purpose, the Ministry of Education provided additional funds.

The provision for the new role for headmasters is contained in Law 59, a framework law and not a detailed and operative law. In fact, thousands of headmasters are, at present, still awaiting the executive decrees implementing Law 59. Meanwhile, Minister Berlinguer decided to allow those schools wishing to experiment with autonomy to do so, without official authorization from the

ministry.<sup>17</sup> The ministerial decree regarding the right to experiment with autonomy, Decree 765, provided for the freedom of schools to make their own choices concerning the academic year calendar, the flexibility of the class schedules and the organization of extracurricular activities. The initiative was warmly welcomed and particularly praised by the press for offering diversified educational possibilities. Moreover, it encouraged ‘contracting out’, which involves agencies external to the schools.<sup>18</sup>

The public reacted positively to the reform because of its realism and pragmatism, usually difficult to achieve given the numerous legal minutiae. The reform undoubtedly suggested operational means of autonomy, such as the creation in each school of a board of control that will monitor the implementation of the reform. Moreover, the reform significantly gave a great deal of initiative in the hands of the collegial boards made up of teachers and students. These are representative bodies in each school that take decisions regarding a wide range of issues: ordering books for the library; purchasing equipment and instruments for the laboratories; and organizing extracurricular courses and activities. Representatives of students, parents and teachers sit on the bodies, yet parents have the most important role.

In the general enthusiasm for the experiment with autonomy, as a temporary measure awaiting the real one, not enough attention was paid to the concurrent development of the local offices of state administration. The ministerial decree creates a special unit to monitor and support the schools in their efforts. Article 3 of Decree 765 empowered the ‘*Provveditorati*’, which have traditionally served as the executive arm of the Ministry of Education in the local areas, by reinforcing their monitoring and controlling authority. It also gave them ‘consulting’ responsibilities and, most importantly, the power to rationalize the school system. Thus, they had only monitoring but also increased administrative responsibilities. In 2000, the *Provveditorati* were replaced by the *Uffici scolastici regionali* (regional school offices).

### **Citizens’ Charter of Education**

The Charter of the Service of Education has been another element of the education reforms. Adopted in 1995, the Charter

instrument has not been limited to the area of education. Other public sectors, such as health and insurance services, transport and telecommunications, have adopted charters protecting the rights of customers. The model is the British Citizens' Charter, which is much more market-oriented than its Italian counterpart. In fact, the rights of Italian consumers are less akin to those of customers of a service than to those of citizens of a state. The reason is that deregulation and market-oriented reform in Italy have not been so advanced as in the UK. The market logic is extremely difficult to apply at the lower level of the civil service.

The Charter of the Service of Education is a heterogeneous document in terms of its content and structure. It provides the general guidelines to be implemented by each school. The Charter is composed of the Basic Principles and five additional parts: the educational aspect; the administrative services; the environmental conditions;<sup>19</sup> the complaints procedures and evaluation of services; and the implementation of the Charter. The Basic Principles are inspired by Articles 3, 33 and 34 of the Constitution. They include: equality, impartiality and continuity of the service; involvement of students; right of choice of school; efficiency, transparency and participation; freedom of teaching; and continuous training of teachers. The Charter sets out the general guidelines and basic fundamental principles of education in Italy. It defines their regulatory framework, standards and performance criteria.

The most interesting aspect of the educational part of the Charter is the elaboration of the 'Progetto educativo di Istituto' (Educational Project of the School), which clearly goes hand-in-hand with the autonomy of schools. The project is the formulation of the educational and organizational decisions of individual schools. The schools have to set the criteria for the use of resources, cultural initiatives, organization of classes and discipline matters. However, the Charter was not specific on the role of the project, given that public law already regulates every single aspect of school administration and planning (Roccella, 1996).

The policy instruments used to achieve the stated aims of autonomy, quality and participation are full of contradictions and inconsistencies. On the one hand, the state gives organizational, administrative and didactic freedom to individual schools. On the other hand, the state retains the only autonomy that could

make a difference, in the distribution of financial and personnel resources. Moreover, the government accepts the principle of managerialism for headmasters but makes it conditional upon achieving autonomy of the school. The Ministry of Education, in an apparent ‘Copernican revolution’, authorized schools to take the leadership in gaining some degree of autonomy. Nevertheless, at the same time, the government decided to empower the regional school authorities (*Uffici scolastici regionali*, created in 2000) to control and monitor the compliance with national regulations.

## Conclusions

The neoliberal ideologies underpinning some currents of NPM thinking (Minogue et al, 1998; Harvey, 2011) have initially entailed managed competition and the separation of the provision of public services from steering. In this process, society and citizens were kept at arm’s-length from public officials and, more generally, the state. The new model of public governance, on the contrary, has captured the need to establish a direct collaboration with citizens more widely and has coined the new paradigm of co-production. Public policy and organizational studies have identified in co-production a go-to solution for improving the legitimacy of decision-making and government actions. This indicates that citizens’ voice and inputs are again politically salient. Bureaucratization and re-regulation, and other limits of NPM discussed in this chapter, have been revisited and questioned by governments that since the 2000s have increasingly involved citizens in the delivery of services as partners and co-producers.

The findings related to the Italian case and presented in this chapter are relevant more generally. Whereas the market-based environments and economic arguments were a key component of the NPM approach to public service delivery, it remained highly contested outside the Anglo-Saxon countries. When NPM was transferred, or aspects of it, the participatory practices were often more attractive to non-Anglo Saxon countries and more resilient in the long run. Moving beyond centralized controls, by creating new organizational and hybrid arrangements with citizens or their associations, has been politically more acceptable and sustainable in the long run. The Italian version of NPM has

accepted the participatory aspects of administrative reform, but not the privatization ones (that is, private ownership, contracting out services, creation of internal markets). The former aspect of administrative reform has been more attractive to the government. For example, the reform of education in high schools has stressed the participation of students and parents in the decision-making process of pedagogic strategies and organizational management. More generally, the entire public administration has been made more accountable to citizens and less to regulations and legal procedures. The adoption of Citizen School Charters illustrates this point very clearly. The analysis of the case study leads us to conclude that the policy adoption of NPM in the early period has occurred partially and is void of one of its major tenets, namely privatization and market-based contexts.

The possibility of the overall success of administrative reforms cannot be concluded from this study. Whether reforms are likely to fail or succeed has not been the fundamental question of this chapter. However, the analysis of the reforms of education has underscored a problematic relationship between the formulation of a neoliberal ideological paradigm and its institutionalization. The administrative culture that characterizes national political and administrative systems has played also an important role. This does not suggest that the general intellectual climate has remained unchanged in the 1990s. In fact, public awareness of the inefficient public sector and the concern of the political elite for efficiency and performance of governments have grown. In the [next chapter](#), we will move beyond NPM's conceptualization of participation and look at changing ideas and practices about governance and citizens' participation.

## The Engaged State: Bringing Citizens In

The role of the citizen in the world of New Public Management was centred around the ‘customer’ of public services because of the strong marketization dimension to the reforms. The interaction between public officials, professionals, street-level bureaucrats and citizens was mediated through market-based mechanisms. Central governments started to delegate public provision responsibilities to social actors, associations and NGOs through market or quasi-market arrangements (Le Grand, 2007). Market accountability was an important component of the relationship between state provision and society. The relationship between society and citizens was at arm’s-length. For instance, this was reflected in the public policy approaches to science and society at the European level. The European Commission’s *Plan D for Democracy, Dialogue and Debate* (European Commission, 2005) promoted a top-down type of societal accountability which entailed listening to citizens’ needs in a hierarchical environment of decision-making. Until recently, society was kept away from the core activities of the state, as Chapter Three discussed at length. NPM was exemplified by performance contracts, outsourcing arrangements and managed competition, with limited participation of citizens, who were customers. The role of citizen was articulated in that of the consumer who can exercise the ‘exit’ option (Hirschman, 1970).

The co-production model proposed by Carayannis et al (2012), picked up at an early stage by the Knowledge Exchange Framework of the Research Council UK is at the heart of the policy change

directed towards the adoption of public engagement for 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 (Dordoni and Van Hooff, 2004). Traditional mechanisms, starting with basic research and ending with application, have particularly been challenged in the social sciences, and we increasingly need nonlinear and flexible procedures (LERU, 2017). Gibbons maintains that knowledge production cannot be separate from context or practice (Gibbons et al, 1994; Gibbons, 1999). The co-production of knowledge is intrinsically transdisciplinary and allows for the integration of different approaches, societal demands and interests.

In this chapter, we will discuss the concept of citizen science, and then zoom in to explore its application to the practice of ecological citizenship, which has received much attention today. For instance, the ecological citizen is ‘engaged’ in climate change action. She is not only a passive participant in knowledge production, but engages directly in the safeguarding of the environment (Whitmarsh, 2011). Ecological citizenship is a form of public engagement (Dobson and Bell, 2005; Horton, 2005; Jagers, 2009) and governments are setting out policies to incentivize citizens’ involvement in ecological projects, with a view also to change their behaviour. UNESCO has recommended that environmental citizenship courses be mandatory in schools, as a key instrument to implement the Sustainability Development Goals. UNESCO Green Citizens programme, for instance, facilitates the dissemination of information about practices that mobilize citizens to protect biodiversity, ocean literacy, indigenous knowledge, and others.<sup>1</sup>

## **Citizen science**

NGOs and civil society have taken an active role in helping governments promote their rhetoric on ‘citizen science’ (Bonney et al, 2014; Irwin, 2015; Woolley et al, 2016), a broad umbrella term that applies to a wide range of research projects that involve laypeople and the general public in science. Citizen science represents a paradigm shift in recent decades promoted by government research funding agencies and national governments.

Woolley et al (2016) offer a granular and sophisticated understanding of citizen science and distinguish three distinct ways of involving the public in biomedical research: participation, engagement and involvement. The first conceptualizes citizens as ‘subjects’ of research itself. Medical care research can refer mainly to the recruitment and, sometimes, the enlisting of humans for projects. In contrast, engagement and involvement are less passive and entail an independent decision regarding inclusion in research studies. The difference between the two is a gradient of involvement, which in many cases includes citizens defining the research agenda, setting priorities, and even co-designing research questions under the supervision of scientists. Engagement and involvement are expected to increase trust and literacy in science. They also contribute to raising awareness of scientific results and heightening public enthusiasm for certain fields of research, such as genomics.

‘Citizen science’ has multiple and conflicting meanings, and it is far from representing a one-size-fits-all conceptualization of public involvement in science. One can distinguish between a top-down and a bottom-up approach to citizen science. The understanding of the citizen’s role as a volunteer data collector comes closer to a top-down view of participation and enlisting patients. The bottom-up approach, developed by Irwin (2014), emphasizes practices that closely align with the active and direct involvement of citizens from the ground. This model favours the engagement of the lay public in the conduct and governance of research projects. It is most exemplary of the normative values of citizen science as presented in many EU documents about environmental projects, for instance. Citizens are not the subjects of research and are empowered to define the orientation and direction of science in society. The top-down approach presents a few risks when public engagement is viewed as mainly instrumental by government funding agencies; namely, it is a strategy to improve research grants and research impact without a genuine commitment to shared societal goods. In some contexts, citizen science has also been used to refer to fundraising and reaching out to philanthropists, wealthy individuals and politicians. There is thus a blurring between government strategies to improve the literacy and trust of science, viewed as a collective societal good, and vested interests and specific research priorities over others. As Woolley et al note: ‘It is very attractive to governments interested

in propelling labour and data-intensive research in a cost-efficient manner' (2016: 5).

What does citizen means in 'citizen science' then? Rosanvallon (2008) in his conception of 'counter-democracy' posits that the idea of citizenship and participation involves three dimension of interaction: first, democracy of expression, whereby society has a voice in the relationship with the state; second, democracy of involvement, when citizens join together and take part in associational life; third, democracy by intervention characterized by collective action to obtain results and influence public policy and public debates. Rosanvallon distinguishes between expression as voice, on one hand, and active citizenship whereby the citizens join up and take collective action. This concept comes close to 'co-governance for accountability', defined and advocated by John Ackerman (2004). This is not a hierarchical type of control, but citizens directly engage with the state and oblige government to answer for their actions directly through participation (Yang and Callahan, 2007). The author argues that co-governance moves beyond exit and voice to establish a direct interaction between public officials and citizens, and invite society into the inner chambers of decision-making. Thus, opening up core activities of the state to societal participation is one of the most effective way to improve accountability and governance. Likewise, Goetz and Jenkins (2001) sustain that a full co-governance relationship between citizens and the state entails full participation and openness to citizens' direct involvement in the process of decision-making. These scholars advocate for public engagement upstream, namely during the early design phase of a policy.

### **Collaborative governance in the new millennium and citizens as co-producers**

The new millennium is characterized by a shift towards a new model of public governance centred around the interaction and cooperation between state and non-state actors by public-private mixes and by processes of civic engagement (Mayntz, 1998; Ackerman, 2004). In the new model, the role of the citizen is elevated to co-producer and activist (Hupe, 2022). There is a differentiation between the 'old' traditional roles citizens played in

their encounter with public officials and the state (as voters, as rule followers and as beneficiaries of public services and social services), and the ‘new’ role that collaborative governance entails (Brandsen et al, 2018). Government agencies, public and private providers of social services, have moved participatory governance up on their discursive agenda to the extent that ‘participation’ has become a golden value and recipe for good governance. It is viewed positively by public officials and politicians because it reduces costs and makes unpopular financial cuts more legitimate. It is also a way to offload public service provisions, or some aspects of it, to NGOs and civil society associations with specific expertise. Thus, participation and co-governance arrangements moved the state in the direction of openness to society (Evans, 1996).

The co-production literature in the management field does not always distinguish sufficiently the customer from the citizen as co-producer, though there are fundamental differences between the two. The customer or client is someone who engages with public agencies and collaborates to deliver public services, and this occurs for private interests and a personal and private benefit. For instance, a social security beneficiary and recipient engages with government to receive a private and individualized product. However, citizens engage with public organizations as co-producers as part of a collective community and to promote societal good. A citizen acts as part of a collective community then. This differentiation matters insofar as motivations to co-produce are different and multiple, and rarely studied in the theories of co-production (Alford, 2009). The literature concentrates on efficiency and quality that co-production of delivery of services may yield (Brandsen and Pestoff, 2006), but less so on the real effects of such arrangements on trust in government and public authorities. In fact, recent research shows that little or no causal effect of co-production is evident in experimental surveys (Dudau et al, 2019). Further research is needed to assess the impact on public trust originated by citizens’ engagement with co-production arrangements. In other words, how effective is public engagement with climate change in reducing carbon emissions, for instance?

For citizens to best respond to legislators’ intentions and possibly change their behaviour and attitudes, models of public engagement should be designed with an orientation towards the perspectives

of the communities targeted by the policies enacted. In this way, it is possible to move from a top-down model of public policies produced to obtain ‘results’ useful only to policy makers and politicians, to a model designed to obtain ‘outcomes’ desired and supported by citizens (Bovaird and Löffler, 2011). Therefore, the policy-making cycle is no longer perceived as a ‘top-down’ process but increasingly a negotiation between several actors in the political system in which the end-users demand a greater role in the co-production of public goods (Bovaird, 2007). Several countries have experimented with examples of public policy co-production with local communities, and many authors have analysed these experiences in light of the increasing salience the phenomenon is achieving (Dunleavy and Hood, 1994; Edwards, 2001; Berry, 2005; Cooper et al, 2006; Heikkila and Isett, 2007; Yang and Callahan, 2007; Pestoff, 2009; Fung, 2015). Authors such as Ackerman (2004) advocate a co-governance model, compared to a co-production one, as the best possible one to promote civic engagement and draw on the best resources that civil society can offer. A public engagement model able to involve these actors would indeed also aim to achieve more inclusive results (van der Linden et al, 2015; Reed et al, 2017).

## **The ecological citizen**

It is undeniable that environmental protection and the fight against climate change are taking on increasing salience almost everywhere. The media attention on natural disasters and ecological events has also prompted the international community to take action, promoting alternative models of sustainable development and valuable assets to be disseminated and spread, especially among the younger population. The 2030 agenda produced by the UN, inter-governmental conferences such as COP26, COP27, and various international treaties, along with purely economic and industrial interests, pose crucial challenges to governmental elites committed to educating the public. What the EU has done through the European Green Deal is highly innovative in this respect (European Commission, 2019). The Commission has not only provided several investment packages aimed at the ecological transition but has also promoted many initiatives aimed at stimulating public engagement

in the cause it advocates. Through the European Climate Pact, people, communities and organizations are stimulated to participate in the climate actions promoted by the institutions.

The European Commission has promoted a variety of new citizens' initiatives and organized engagement activities with science and innovation to build institutional capacity in the area of public engagement. These represent resources and opportunities to consolidate social and cultural capital. For instance, the Climate Pact aims to engage civil society in the green transition of the EU by spreading awareness and supporting citizen initiatives. The Climate Pact is a European Commission initiative promoted within the framework of the European Green Deal and announced by the European Commission in December 2020 (European Commission, 2020). The main aim of the Pact is to engage stakeholders and civil society in the green transition of the EU; it invites people, communities and organizations to participate in climate action to build a greener Europe and to encourage, listen to and support initiatives at the local level. The action of the Pact is based on two main pillars: the spread of public awareness and the support of action within civil society.

Awareness about the existence of climate change through the acquisition of scientific knowledge is considered one of the most important assets for civil society to embrace the transition and to translate science into options for everyday action (European Commission, 2020). Misinformation, incorrect ideas and climate denial are believed to be mitigated by spreading scientific awareness about climate change and the need to take immediate action to transition towards sustainable societies. To spread awareness, the Commission also believes in the need to bring people together and in the power of sharing information. In this sense, the Pact helps to spread awareness by fostering open dialogue based on scientific evidence. The Commission will make available a variety of communication materials accessible at schools, homes and workplaces.

While the Pact spreads awareness as much as possible, it also embraces the wide aim of encouraging democratic, science-based, transparent, locally grounded, inclusive and long-lasting action (European Commission, 2020). The most encouraged and supported types of action are those that involve sustainability,

social wellbeing, inclusion, equality, diversity, accessibility and affordability, especially for participants who aim to reach the most vulnerable individuals and areas. One of the ways to enable the centrality of citizens' engagement has been to provide open public consultations. The first open public consultations were held to help shape the Pact and were open from March 2020 to June 2020. The Commission received more than 3,500 replies from citizens in all 27 EU member states (European Commission, 2020). More than 80 per cent of respondents to the public consultation declared that they were interested in making a climate action commitment. In June 2020, the first EU Climate Pact webinar was held to give organizations an opportunity to learn about the Pact.<sup>2</sup> Approximately 130 actors representing grassroots initiatives, private companies, NGOs and public institutions participated in a preliminary discussion on how to shape the Pact. Participants highlighted that the Pact could be a bridge between initiatives, an aggregator, a resource and platform for collaboration, a network to support grassroots initiatives, especially by youth, an enabler of action by groups and individuals, a source of knowledge on climate change and climate action, and a coordinator highlighting interconnections between sectors and initiatives. Several countries are changing their national constitutions to promote the value of environmental protection and, in some cases like Italy, to prevent it from conflicting with private economic initiatives, putting the former before the latter. There are about 90 countries that provide for environmental protection in their constitutions, of which about 30–40 even provide for procedural environmental rights (Daly, 2012). Even though in some countries constitutional change has not yet taken place, however, there is a strong production of norms and laws aimed at introducing these principles and educating future citizens on these issues.

Thus, one can consider 'environmental citizenship' a civic responsibility that every citizen in the world should care about (UNEP, 2002). In the scientific literature the ecological citizen has certain qualities: she is aware of the critical issues that affect the surrounding environment and others; has relevant knowledge and information on climate change; can recognize the causal links between environmental problems and individual behaviour; and, consequently, takes courses of action that are not harmful to

the environment and others (Dobson, 2007; Dono et al, 2010). Consequently, the principal aim of environmental citizenship education programmes is to develop these skills and knowledge to support behaviour and attitudes that are conducive to environmental protection (Dietz et al, 2002; Gunningham, 2017).

Ecological citizenship, as defined by the work of Dobson, is clearly a nontraditional theory of citizenship, that eludes the territorial dimensions of the concept (Dobson and Bell, 2005). It emphasize duties to protect the environment over individual rights. It has a strong normative value intrinsic to it, that stems from caring for others, for local communities and for environmental sustainability. Ecological citizenship is therefore a conception of a citizen whose behaviour is motivated by a set of values originating in the cognitive, affective and behavioural realm.

We can therefore try to define ecological citizenship as the status *achieved* by citizens with a strong sense of ecological justice, who recognize the consequences of their actions and those of others, who are deeply committed to changing their lifestyles in a manner consistent with the proposed goal of safeguarding the environment, and who are personally active in influencing the courses of action of others. Borrowing a concept from Heater (1999), we can define environmental citizenship as *parallel* citizenship to the national one, because it does not replace it, but complements it. It adds rights and duties to national citizenship because it imposes, in some cases not only ethically but also legally, civic and moral duties. Moreover, it also guarantees rights, such as the right to live in an unpolluted environment, to breathe clean air and drink uncontaminated water; it guarantees free access to the accessible biome within the borders of one's state with the duty not to deplete it; it allows the citizen to hope for a future with a less severe climate impact on one's lifestyle and economic activities, and numerous other rights (and duties) that we will not list now.

However, returning to the parallelism between citizenships, it would be appropriate to ask ourselves how environmental and national citizenships can complement each other without creating friction and prevarication. Some authors now speak of the so-called emergence of 'eco-states', that is, states that recognize environmental and ecological issues as a crucial point in their policies and laws (Koch and Fritz, 2014; Jakobsson et al, 2017). Others, instead,

recognize a nascent synergy between social and environmental policies, in which case they speak of ‘eco-social’ policies (Krieger, 2012; Mandelli, 2022).

### **Youth public engagement with sustainability**

Education is seen as the preparation of students for participation in society as future adult citizens, thus requiring the proper civic knowledge for political and voting participation and the improvement of democratic aptitude (Lawy and Biesta, 2006). A common trait is the implementation of teaching with communal and experimenting educational activities, thus enabling the establishment of social practices that reinforce the self-perception of being a citizen. The school is the place to accumulate this set of democratic experiences and to reflect on them in addition to others acquired elsewhere (Daniels, 2002). Citizenship education should be based precisely on these concepts of reflecting on social practices and experimenting with others (Geboers et al, 2013).

Citizenship is essentially regarded as a controversial and contested concept (Van Gunsteren, 1998). Enslin (2000) defines citizenship in a democracy as the requirement for membership status for individuals within a political unit that guarantees an identity for individuals and constitutes a set of values that are often interpreted as fundamental to functioning and belonging to the state. It also assists individuals in participating in the political processes of common life and allows the acquisition and internalization of laws, procedures and norms that regulate private life. Westheimer and Kahne (2004) define and distinguish three types of citizens: responsible citizens, participative citizens and social justice-oriented citizens. Westheimer (2008), again, speaks of ‘good citizenship’ as the character of citizens who are prepared to make their critical evaluations from different perspectives, ready to explore strategies for change and who make people think about concepts of justice, inequalities and democratic participation in the *res publica*. However, the social dimension of citizens remains the lowest common denominator of most of the proposed definitions, especially concerning citizenship in youth and citizenship education for the citizens of tomorrow.

A common thought among the public and policy makers identified by several authors is that the status of citizen is bestowed

following the attainment and fulfilment of certain requirements (Davies, 1987; Jones and Wallace, 1992; France, 1998). Usually, these requirements relate to the duties arising from the determination of citizenship, suggesting that there are made and accomplished citizens and citizens in the making. The largest category within the set of not-yet-citizens is certainly that of the young, individuals who are not fully educated and lack some of the rights (and duties) typical of adults and who need to be educated, according to the ruling elites, in the use of these. One of the practical reasons why policy makers opt to target these civic education programmes at young people certainly relates to the ease of access and involvement of this category compared to adults, who are free of educational obligations in most states (Smith et al, 2020). However, this promotes a deficit model of citizenship in educational programmes in many school systems (Osler and Starkey, 2003).

Crick (1998), speaking of citizenship education for young people, describes the three pillars that any educational programme should have: first, an education in moral and social responsibility, since children must learn to relate to their peers and authorities. Second, nurture for participation in the community, understood as spontaneous, active and sincere, recognizing this as an essential requirement for a society to function. Finally, political literacy is the last step to being able to step out of the protected school environment and be ready to interface with authorities and wider social contexts. Crick (1998) again states, therefore, that citizenship education cannot and must not be a mere transfer of knowledge about society and the constitution but must teach crucial social values and skills.

Lawy and Biesta (2006) strongly criticize the notion that citizenship is a goal to be achieved and not a status automatically conferred on all individuals, young and old, belonging to the community. The authors, therefore, propose a change from a model of citizenship-as-achievement to one of citizenship-as-practice, in which young people are no longer seen as empty vessels to be filled with civic education curricula, but are to be educated through practices of active socialization in public life to their responsibilities as already citizens ready to exercise their upcoming rights. As long as we persist in considering citizenship as an achievement reached by possessing specific requirements, then young people will always

be excluded from this definition. In a longitudinal study conducted over eight years, Kerr (2005) explains that the citizenship learning process in young people is influenced by numerous factors that make it difficult to assess the effectiveness of citizenship education programmes per se. The teaching environment is made up of school, family, class composition and socioeconomic background, actors interacting with students such as teachers, parents and friends and other contingent factors that can influence learning processes and outcomes.

An analysis conducted by Biesta et al (2009) on a small sample of English students between 2003 and 2005 also shows similar results, underlining how the context of the reference is of fundamental importance when evaluating the effects of such educational curricula. In particular, they highlight the importance of increasing children's involvement in 'adult' social life and the exercise of citizenship values from adolescence onwards, if not earlier. In a review study of 28 selected articles on the effects of citizenship teaching curricula on school-age children, Geboers et al (2013) explain that the results are quite mixed and unable to identify a clear-cut trajectory on which teaching practices are most effective and advisable. The authors point out, however, that the most pronounced effects were seen in school contexts that were open to dialogue and discussion and, above all, in the presence of formally and precisely instituted curricula.

## Conclusions

Participatory governance is effective in fostering government accountability and responsiveness (Heikkila and Isett, 2007). When citizens are directly involved in the decision-making process jointly with public officials, the mechanism of holding to account is direct and marks a point of departure from top-down hierarchies. However, it is unlikely that all citizens will be able to exercise their new role as co-producer of public services. Some may not have the resources, the skills to participate, or may simply lack the motivation to do so. Thus, the assumption that citizens will be motivated to co-produce and that they will do so fruitfully remains to be empirically investigated further with case studies on local level operational governance (Hill and Hupe, 2022).

Another critical issue is the ground-level problem of interpreting public engagement simply as communication strategies, instead of engagement with society. In the field of sustainability and development, firms and organizations are encouraged to design Sustainability Communication Plans, which differ from real participatory mechanisms with society. They seem rhetorical tools to gain legitimacy and obtain public funding for communication initiatives. Unfortunately absent in every dialogue about public engagement is serious debate on how the decision-making process is influenced by citizens, and how their feedback and input are used by public officials in designing and implementing policy programmes. There is a need to explore and investigate further in the future how the input of citizens as co-producers is used by organizations, by politicians and public officials. In a recent European Commission assessment of nanotechnologies, for instance, most of the engagement activities surveyed fell short of citizens' control and closer to manipulation (MASIS Expert Group, 2009).

In the [next chapter](#), the author explores the case study of educational initiatives aimed at making the provision of 'environmental citizenship' compulsory in all schools as a way to form the ecological citizen and foster collaborative co-production of knowledge about sustainability with schools. The discussion of this case is justified by the central role that educational institutions play in the interaction between science and society. Schools are key institutions and centres of knowledge production and diffusion at the local level in specific context. The target audience of many public engagement activities and 'working with schools' programmes is students, teachers, parents and local communities (see [NCCPE, 2017](#)). [Almond and Verba \(1989\)](#) in their seminal work, *The Civic Culture*, attribute a central role to education as a variable of public engagement. It is widely accepted in the literature on public engagement that educational initiatives have a positive impact on all forms of civic engagement, as they build normative values of caring for others and the environment. [Putnam \(2000\)](#) argued that education is one of the most important conditions of many forms of social participation and it is a powerful predictor of civic engagement.

## **Working with Schools and the Case of Ecological Citizenship**

Recently, international organizations and national governments alike have advocated, and in some cases adopted, the integration of school curricula with education for sustainable development (ESD). UNESCO included ESD in Target 4.7 of the Education Goal of the Sustainable Development Goals:

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development. (United Nations Sustainable Development Goals)

According to the Guide for Teachers developed by UNESCO, the content of education programmes in schools should include climate change, biodiversity, disaster risk reduction, sustainable consumption and production, and the resilience of ecosystems, among others (UNESCO, 2016). The purpose of adopting such an educational agenda globally is to facilitate societal transformation and social change. Students, teachers, schools and local communities

are agents of public engagement with climate change to motivate young people and learners of all ages, backgrounds and contexts to adopt sustainable lifestyles. The purpose of ESD is also to equip learners with the skills for ‘green jobs’.

Both international organizations with an education mission and national governments worldwide have adopted or are in the process of designing new regulatory tools for education policy in this domain (House of Commons, 2019). The British Parliament is discussing a bill to introduce environmental education in schools. The bill was initiated in the House of Lords in 2021 and is now being discussed.

In 2019, the Italian Parliament passed a law that introduced environmental education in all schools alongside civic education. In this chapter, I will examine this case to illustrate the potential for societal change and some of the critical issues that emerged in Italy during the implementation. It is too early to judge the effectiveness of such educational initiatives on climate change as they are intended to produce positive impacts in the long term.

On the one hand, in regard to changing human behaviour, which is an important element of climate change policies, market-based tools have been widely used. Several scholars now agree, however, that these are not always sufficient and that it may be more helpful to focus on policies and processes that engage citizens in a deliberative mode. For an unprecedented challenge such as the one we are facing, societal change that also starts at the grassroots level is needed. On the other hand, the utilitarian assumption whereby human beings are regarded as selfish and rational maximizers is outdated, as demonstrated by several studies that show how individual choices can follow criteria of social justice that may even harm self-interest (Aumann, 1997). Policies that promote virtuous environmental behaviours through fiscal incentives and monetary disincentives such as taxes and sanctions for undesirable behaviours show immediate and short-term effectiveness, which, according to Dobson (2007), in most cases spontaneously and instantaneously decrease to the elimination of the initial benefits. For this reason, legislators have initiated environmental education campaigns aimed at internalizing and changing attitudes in parallel with the tools already mentioned.

This chapter analyses ESD policies established at the national level in Italy and their implementation in selected schools. The proposition is that despite the regulatory tools introduced by law,

the engagement practices at the local level and in schools are not entirely aligned. First, I will map the policies aimed at teaching environmental citizenship education, highlighting their potential strengths and weaknesses. Then, this chapter summarizes the key lessons learned from the analysis of qualitative interviews conducted with a small sample of compulsory school teachers in Italy. The overall purpose of this chapter is to raise concerns about the potential gap between the central government's ambitions presented in hard regulatory tools of governance and what happens on the ground with actors who are expected to engage with climate change, often with limited resources, unclear coordination mechanisms and a lack of training. This is to say that 'magic concepts', such as public engagement, need to be filtered down to the level of professionals, students and their families.

### **Education for sustainable development in Italy**

Until 2019, Italian schools adopted environmental education only on a voluntary basis while awaiting a new national policy framework. The Ministerial Circular Eighty-six of 27 October 2010 issued by the Ministry of Education stated the need to teach the course *Citizenship and Constitution* (introduced by law 169/2008) in an integrated way and underlined the importance of the topics of environmental awareness and ESD. Special regard was given to the development of social and civic skills aimed at energy saving and the protection of artistic, cultural and environmental heritage (Law 169, 2008; [Italian Ministry of Education, 2010](#)).

To raise awareness of environmental education, the Department of Education in Italy in 2016 launched the *School 2030* project. This ambitious project was the product of institutional collaboration between the Ministry for Education (MIUR), the National Institute for Educational Documentation and Research (Indire) and the Italian Alliance for Sustainable Development (AsviS). The main goal was to contribute to Goal 4 of the UN 2030 Agenda, Quality Education, and in particular to Target 4.7 ([Colella, 2020](#)):

[B]y 2030 we want to ensure that all students acquire the knowledge and skills necessary to promote sustainable development through education for sustainable

development and sustainable lifestyles, human rights, gender equality, the promotion of a culture of peace and nonviolence, global citizenship and the enhancement of diverse cultural heritage and the contribution of culture to sustainable development. (*Progetto – Scuola2030*)

One of the objectives of the project was to identify training courses for teachers through the use of new technologies, including a free e-learning training course. Furthermore, with respect to the autonomy of schools and teachers, the main project activities included supporting teachers and schools in the curriculum design and integration of issues related to sustainable development, their inclusion in the three-year training plan, and the self-assessment and social reporting of schools. Thus, the national project aimed to provide support to schools with a view towards integrating the existing curriculum with content related to education on sustainability.

### **Adoption of mandatory civic education in schools**

Law 92 of 20 August 2019 introduced compulsory *civic education* in all Italian schools starting from the 2020/2021 school year. The decision modified the teaching of ‘Citizenship and Constitution’, which was established in 2008. The 2019 law aimed to educate responsible and active citizens and promote their full participation in the civic, cultural and social life of communities. In the Italian school system, law 92/2019, which entered into force on September 2019, introduced the compulsory teaching of environmental values through the subject of civic education. While environmental education and sustainable development represent a central aspect of raising civic awareness, personal development and citizenship, they are not yet a separate and distinct subject in schools but are part of the broader field of civic education (Colella, 2020).

According to Article 3, guidelines are defined for the teaching of civic education that must take into consideration fundamental issues such as the following:

- the constitution and institutions of the Italian state, of the EU and international organizations; history of the flag and the national anthem;

- 2030 Agenda for Sustainable Development, adopted by the United Nations General Assembly on 25 September 2015;
- digital citizenship education;
- fundamental elements of law, with particular regard to labour law;
- environmental education, eco-sustainable development and protection of the environmental heritage, identity, production and territorial and agri-food excellence;
- education on legality and to fight against the mafia;
- education to respect and enhance cultural heritage and common public goods;
- basic training in civil protection.

Environmental education is a wide, cross-cutting issue that has multiple and varying articulations, according to policy makers. The need to deal with fundamental issues concerning education for sustainability is recalled in various points of the law. It starts with the overall goals of the 2030 Agenda for Sustainable Development and includes environmental education, which is understood to include not only instruction for eco-sustainable development but also instruction for the preservation of cultural heritage, identity, production, territorial excellence and agri-food excellence.

Municipalities play an important role in promoting initiatives in collaboration with schools to teach about the functioning of local administration, historical knowledge of the territory and the best use of green spaces. Legislators believe that this education should be integrated with extracurricular activities, with environmental networks, and with other stakeholders from NGOs and civil society. The MIUR established the Register of Good Civic Education Practices. This register, a novelty in the Italian school system, collects the best practices adopted by educational institutions as well as agreements and protocols signed by the MIUR for the implementation of issues related to civic education. The main goal of this provision is to share and disseminate organizational solutions and best practices to create a network that is often lacking between schools.

Finally, as stated in Article 6, the financial allocation of four million euros per year is earmarked for the training of teachers on issues relating to the teaching of civic education. In this regard, educational institutions are required to survey the training needs

arising from the new prescriptions of the law. Furthermore, they can establish partnerships and agreements with local entities for teacher training in full compliance with their organizational autonomy and the principles of horizontal subsidiarity.

The operational governance of the content of Law 92 of 2019 was delegated to a subsequent Decree of the MIUR, issued on 22 June 2020. The Ministerial Decree and the annexes that are an integral part of it presented guidelines for the cross-cutting and integrated teaching of civic education and the new competencies required for students at the end of the first and second cycles of education ([Italian Ministry of Education, 2020](#)). In Article 2, it is also established that for the 2020/2021, 2021/2022 and 2022/2023 school years, schools define the civic education curriculum, taking into account the guidelines indicating competence goals, the results of learning, and any specific learning goals, in coherence and possible integration with the national guidelines for the curriculum of kindergartens and the first cycle of education as well as those for high schools and technical and vocational training schools.

### **Operational concerns from the street level**

As part of a larger research project on One Health One Earth funded by the University of Milan, from May to September 2022, I conducted semi-structured and qualitative interviews in secondary schools in the city of Milan, Italy. The schools varied in their demographic population, location (half of them were located in the city centre and half of them in deprived neighbourhoods outside the city), their adoption of education for sustainability projects, and their level of engagement with climate change. Schools also varied in their organizational typology, although they were all publicly funded state schools. The type of interview adopted was the semi-structured qualitative type, whereby we developed a topic guide and structured our conversations along key themes but also allowed for the exploration of new issues that emerged from the interaction between the researcher and the interviewee. We mainly interviewed professionals and teachers. The duration of the interviews ranged from approximately 30 to 60 minutes. This pilot study was part of a much larger project that is not within the scope of this book. The structure of the topic guide we constructed for questions for the

interviewees had eight sections: regulatory framework; three-year training plan; co-production with parents; influence of external bodies and actors; available funds; citizenship course content and modalities; student assessment; and course evaluation. For the purpose of this book, I reflect upon only a selected few, namely, the three-year training plan required by law, co-production with parents, and external stakeholders.

### *Three-year teacher training plan*

General compliance with the law's requirements emerged from the interviews, with no substantial critical elements or areas of concern. All the schools examined had drafted the Piano Triennale dell'Offerta Formativa (Three-Years Teaching Offer Plan) following Law 92 of 2019 or, in a few cases, had revised existing ones by assigning the relevant functions to the teaching staff. At this level, criticism emerged concerning how the responsibilities for teaching civic education were divided among the teaching staff. Teacher (a) from School E said:

‘Civic education as it is does not work. It should work, but it is impossible in this way because one person cannot be an all-rounder. On the contrary, it would take a person in charge, someone who would coordinate the allocation of tasks and content to designated people who then would in turn have to pass them on to others, because otherwise it is too much left to the individual.’

This quote refers to the poor coordination at the operational level in the school. Teachers generally reflected their frustration with new responsibilities without a framework of support, guidance and coordination. This concern is not only an organizational one; it also involves the content of the courses. The main criticism here relates to the so-called interdisciplinarity of teaching civic education (which includes various elements) and to the guidelines received by teachers, which are too loose and not indicative of the topics to be taught. Moreover, teachers complain about the small amount of teaching time, even subtracted from the teachers' general number of contractual hours. On this issue, teacher (b) from School F says:

‘It has to be an assignment that has to go beyond school hours, and therefore it should have a minimum of financial compensation. Because that’s why Civic Education is also done badly. Because we do Civic Education within our contractual hours, so it is part of the programme ... three hours, four hours, five hours of my programme I now have to allocate to Civic Education ... there is no compensation.’

Teacher (c), on the other hand, from School D, referring to the topics to be covered, said:

‘[I]t is a cross-cutting and interdisciplinary subject. As Civic Education, you can put anything into it. Every teacher decides to put in whatever they want within Civic Education. In my opinion, in fact, it’s a very vague thing, and I don’t really agree with this structure because, as you can well understand, anything can go into Civic Education ... and then it ends up that each teacher does what he or she wants ... many teachers, those who have many hours, include ... other topics that are not related to environmental citizenship.’

### *Co-production with parents and with the local community*

In this section, I attempt to ascertain whether and how parents can enter into the decision-making and organizational process of the courses provided. I ask whether they have a say and, if so, in what form. The purpose of these questions, which focus on the citizenship education course, is to examine the teaching autonomy of the school institution with the active, voluntary and committed participation of the pupils’ parents.

The interviews revealed that schools emphasize teaching autonomy, giving teachers maximum independence in their job. Communication with families is present and fundamental thanks to the various meetings they organize and the internal governance of schools, such as class boards and governing boards, in which parent representatives participate. However, the topics and methods are decided autonomously by the teaching staff and individual

teachers with no input from parents or communities. In some contexts, however, the voluntary participation of parents has made a difference. For example, in School B, teachers (b) and (c) declared a valuable collaboration with some parents who positively proposed collaborations with local authorities to organize environmental education activities. In other cases, teachers emphasized strong parental participation in other educational initiatives organized by them. In this particular case, the teachers organized a food market in which they sold vegetables grown directly in the school garden. The children were directly involved in harvesting, pricing and bagging (with materials such as recycled paper), while the parents handled the sale of the products. The revenue from sales was used to self-finance the school garden, and the children were thus educated in food production and consumption, fostering a circular economy and reducing packaging and waste. Regarding this project and the environmental education provided in general, teacher (b) said:

‘So environmental education, or at any rate outdoor education, is not something preconceived; that is, even if you buy yourself a manual you don’t have a decided path, so it is more than ever a subject to be built and to be built together with your pupils, all the more so by involving the families, because through the enthusiasm of the children it is easier to reach the parents as well. We feel a bit that a pilot project can also arouse in the parents greater awareness of what green can be.’

Teacher (d) confirms the view that supports the positive impact of the involvement of parents and families in educational initiatives:

‘In the sense that there is family involvement at an institutional level, in the school–family dialogue, participation of parents in councils, dialogue with teachers, participation obviously through representatives in school councils, initiatives by parents are welcome ... we have also had co-management over the years in which we have involved parents in activities ... specifically in environmental education ... perhaps in the plastic recycling workshop there was involvement

... but let's say it is not systematized, OK? There is obviously openness to dialogue with families, but the educational activities do not necessarily involve them. So even on the environmental front, they are not necessarily involved. It can happen.'

### *Influence of external stakeholders*

With regard to this issue, the picture that emerges is more complex. I want to ascertain the capacity of the teachers' schools to extend a network with associations, professionals, NGOs and local authorities for the management and production of activities aimed at environmental education. What we found was general confusion of the educational institutions, which relied solely on the ability of individual teachers to cultivate personal contacts and working collaborations on a purely voluntary basis and through personal knowledge.

Teachers complained about a substantial state of neglect on the part of local institutions that should help individual schools coordinate with each other and with civil society to integrate educational activities.

In this regard, teacher (e) expressed himself as follows: "We do not network, which is certainly important, between school and territory. But networking requires resources, time, even financial resources ... but in the school, this message ... everything is left, there are few resources ... everything is then left to the initiative of us teachers." This sense of neglect and lack of institutional support was shared in virtually all the interviews administered. In some cases, the school was able, over the years, to develop a solid network of contacts that could be used for these occasions. In other situations, this was not the case. Some teachers complained about the corporatization that recent legislative reforms entailed for schools, which were guilty, in their view, of distorting the objectives and tools available to schools.

## **Discussion and analysis**

Law 92 of 2019 is certainly innovative from multiple points of view. First, it responds to an ever-growing need to introduce the teaching

of civic, digital and environmental subjects at an earlier age. It also removes the responsibility for this teaching from the personal will of individual teachers, thus eliminating the risk of differences even within the same schools between classes with different teachers. The most recent climatic events have shown the entire continental and world political class that it is increasingly essential to train responsible citizens who are willing to embrace a more eco-sustainable lifestyle from an early age. With this in mind, the compulsory teaching of environmental education is certainly on the right trajectory, albeit belatedly inserted.

Despite good intentions, several limitations need to be discussed and possibly resolved. The absence of a dedicated staff constitutes the first critical point. Choices made in the name of multidisciplinary could create confusion, possibly leading teachers to ignore the value of the discipline. Although it may be interesting to integrate this subject in a holistic way into all the others, it is debatable whether this choice results from an overly optimistic argument or the consequence of a budget constraint that prevents hiring and training additional staff.

Furthermore, the headmaster designates an ad hoc person who, after participating in ten hours of training, conducts support and monitoring actions for colleagues for an additional 30 hours. This support activity does not correspond to training but is envisaged as a functional activity by some teachers identified by the managers with the appointment of the teaching body. The additional work is performed by a teacher chosen by the manager but paid with the ordinary financial resources of the school fund.

The resources for the training of teachers amount to four million euros. The availability of funds seems to be inadequate for the ambitious objectives set by the law. This is probably only an initial and experimental phase destined to be implemented by subsequent reforms in the future, but it should be admitted that the impact of training courses risks being limited until then.

Finally, an innovation such as this, which includes an enormous list of contents, although organized in the three areas of the Constitution, Digital Citizenship and Sustainable Development, could be a harbinger of difficulties in schools. The 2030 Agenda on Sustainable Development and its 17 goals, included in Law 92 of 2019, would probably require well over 33 hours per year and

are only part of the arguments to be developed. School autonomy and organizational flexibility risk constituting an excuse for the government to leave schools alone in this project.

## **Conclusions**

In 2019, climate change protests by schoolchildren around the globe mobilized the attention of the media, policy makers and society at large. Greta Thunberg's speech to the UN Climate Change Conference (COP24) was a political, emotional and cultural awakening for a generation of young people who mobilized publicly against climate change. These protests stimulated wider debate on the role of environmental awareness and citizenship around the globe. In this chapter, we analysed one of the policy responses to such societal pressures associated with public engagement and citizenship: the Italian statutory provision in 2019 to include environmental and sustainable citizenship in the national curriculum in all schools. This was a hard governance regulatory tool to incentivize behavioural changes and societal improvement. Schools are the best place to stimulate behavioural change because young people are motivated and can influence their families and their communities. Other countries have introduced bills in Parliament to amend the national curriculum. In May 2021, the House of Lords in the UK introduced a bill to make climate change and sustainable citizenship part of the national curriculum in all maintained schools. The bill would amend the Education Act of 2002 and would revitalize the teaching of citizenship to embed action in sustainability. The bill is under review in Parliament. The new bill 'would instil an ethos and ability to care for oneself, others and the natural environment, for present and future generations' (UK House of Lords, Bill Education (Environment and Sustainable Citizenship)).

The amendment of the existing definition of citizenship by statutory law is problematic in two ways. First, adding programmes to encourage learning and protection of the natural environment entails a necessary reconceptualization of the notion of civic education and citizenship. Dobson has rightly argued that environmental citizenship is a nontraditional conception that goes beyond national boundaries and affects multiple dimensions of the

political and cultural life of citizens. Second, it is risky to assume it can be easily taught by any teachers as part of any subjects, such as geography, history or engineering. In this chapter, fieldwork research in Italy and interviews at the school level showed that teachers need specific training and institutional support to deliver qualified and high-quality teaching of sustainable citizenship. To be effective, my research also shows that the co-production and involvement of parents, families and local communities with a bottom-up approach is essential for impactful local projects. I have discussed the limitation of prescribing public engagement by statutory changes from above and the benefits of doing so with clear guidelines and institutional support offered to actors on the ground who are willing to take on the responsibilities of ecological citizens.

## 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 civiness 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 Etkowitz at Stanford University (2008; [Etkowitz 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

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

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

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 'end-users' 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 non-incentivized 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 (Cecchi, 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-to-student 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 vis-à-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 research-intensive 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 spin-off 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

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, output-based 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 (Cecchi and Mattei, 2021). This book corrects the imbalances in the literature, which remains narrowly focused on

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.

## Rethinking the Public Scientist

For many years, possibly for too long, scientists have not been concerned with engaging with the ordinary lay person during the process of research and innovation. The ivory tower was, and still is, the chosen place for advancing knowledge, interacting with colleagues and other academics, and communicating scientific results to specialized academic journals and conferences. Science has never come closer, historically, to expertise as it has in the last 50 years. Experts operate within technical and specialized networks of knowledge that are only open to other experts in the same discipline and field (Grundmann and Stehr, 2012). Disciplinary knowledge, narrowly based on specific methodological techniques and analytical tools only known to insiders, has been the basic structure of knowledge systems in many countries in Europe and beyond. This was based on the relationship of public authority when citizens were addressed as subjects of public services and passive recipients of social benefits. In modern times, contemporary democracies have shown how citizens struggle to see the public interest and public institutions are challenged.

This view of science as a medieval castle remotely located and under siege by continual societal pressures is outdated, at best, and no longer reflects the research activities carried out by most departments at universities, research centres and individual academics (Posner, 2003; Cummings, 2005; Gauchat, 2010). Although the relationship between science and society remains dialogical and sometimes conflictual, it is now firmly anchored

in a new normative framework centred around the values of transparency, accountability and citizen science (Gibbons et al, 1994; Gibbons, 1999). Citizens should take up their role as participants to the creation of public value (Pestoff, 2018; Hupe, 2022). The EU's Horizon Europe Programme and the earlier Research Framework Programmes have embraced this commitment to responsible research and innovation (European Commission, 2001a, 2001b, 2001c, 2014), as discussed in Chapter Two of this book. The EU has led the way in many countries in this respect, and now national governments are trying to align their research funding strategies, assessments and projects with the European approach (EC Expert Group, 2013). At the start of the third millennium, citizens have achieved a renewed centrality in public policy making, focused on deliberative processes and collaboration with research and academic institutions. However, having said that, in contemporary democracies the level of public trust in scientific public authorities continues to be significantly lower than in the period before NPM in the 1980s. Expertise-based public trust is highly contested, and exacerbated by populist and illiberal ideologies (Mueller, 2016).

### **Citizen science**

The public understanding of the science model has paved the way in the last decade for citizen science, which this book has discussed at great length as a paradigmatic change that has the power to transform the relationship between science and society. The idea is to create knowledge-based systems with the direct involvement of 'citizens', normally referred to as 'the public' or also 'lay people'. Generally, this means stepping outside the ivory tower to engage with non-academic, nonexpert groups of people from different backgrounds, interests and values. The overall goal of citizen science and its related government programmes and investment is to democratize science (Goodson, 1999; Goddard and Vallance, 2013). In the book I have also referred to 'bringing citizens in' whereby the public is involved upstream in the early days of research design and the formulation of scientific projects. Why communicate the final results of a research project in a unidimensional relationship when we can engage citizens in the

formulation of research questions? Should science not be based on answering citizens' demands, preferences and needs? In the policy world, which is ever more complex and characterized by wicked problems, it is sensible to interact as early as possible with the end-users of public services and citizens affected by programmatic changes, with the goal of helping them change their behaviour and, for instance, turning them into ecological citizens as discussed in [Chapter Three](#). If one accepts the society-driven scientific enquiry, then a wide range of mechanisms and governance tools need to be established to run this fundamental transformation in the relationship between science and the public.

Citizen science has relied heavily on the expectations that citizens have to change their behaviour, interact with the academic community, leave behind their passivity and mobilize their enthusiasm for scientific projects. Why not raise expectations about scientists taking up themselves the role of citizens? In what ways are researchers different from citizens? Unfortunately, these questions have remained marginal in the current debate because the relationship between experts and democracy is still dominated by the notion of public authority. In this way, the relationship between society and science is still influenced by the wrong assumption that it is possible to improve trust by providing more facts, more data and more evidence. Unless we promote a post-positivistic conception of science and policy making, understood as a feature of 'civic epistemologies' ([Jasanoff, 2005](#)), the risk is to preserve the line of demarcation between experts and citizens as a zero-sum game.

### **Public engagement: the concept**

In the book, I have concentrated on one of the governance tools adopted to democratize science, namely, public engagement activities carried out with the intention of improving public trust in science. The normative assumption is that citizens will decide voluntarily to engage with scientific projects, and by virtue of new awareness, social responsibility and new educational opportunities, the production of knowledge will benefit from their input and become more legitimate and accountable. Democratic practices of public engagement with the public will

result, as predicted by a wide range of policy and programmatic documents reviewed in previous chapters of the book, in a stronger trust relationship between scientists and society based on collaboration and partnership. While in the 1980s, the organizational models associated with the entrepreneurial state shaped relationships between stakeholders in a highly contractual nature, the new millennium began with the political demand for a trust-based relationship between citizens and the state. Collaborative governance and co-production arrangements reflect the paradigmatic change. Citizens are no longer clients of research contracts, but are co-producers of knowledge systems that are increasingly shaped by collaboration and networks of stakeholders from different disciplines and backgrounds. This complex system is at the heart of the so-called quadruple helix by Carayannis and Campbell discussed in this book and is very popular among national governments, education departments and European institutions (Carayannis and Campbell, 2013).

As a concept, public engagement contains multiple definitional streams, depending on its purposes. It entails participation, involvement and civicness promotion (as I have called it in this book). They overlap empirically, and they are all ways of building public trust and a sense of collective investment in research, yet they are analytically distinct. Participation refers to those activities where citizens take part, but not necessarily in an active mode. Scientific conferences often include non-academic audiences, but engagement stops there. Scientists record the number of participants as an indicator of public engagement. Raising public awareness is a very important activity, and participation is a mechanism that creates educational opportunities for citizens of all ages. Involvement is a type of public engagement that requires an active role of citizens as co-producers. For instance, the public can be invited to public meetings with researchers to define the research question of a funded project to facilitate the problem-solving capacity. In large population health projects and precision medicine initiatives, citizens are recruited to test new technologies and volunteer in data collection. Co-producing knowledge is presented as the go-to solution for future scientific challenges, and the literature is booming in this area (Brandsen et al, 2018; Hupe, 2022). The collaborative governance conception represents the response to the neoliberal

agenda of public services reforms in the 1980s and 1990s (Whitaker, 1980; Neave, 1998).

### **Public engagement: the contradictions**

The book concludes with a view of public engagement that departs from the idealistic assumption of society as a utopian public ready to mobilize, collaborate and interact with research as soon as given a chance. It also departs from a rather naive view of scientists as individuals only moved by altruistic and nonutilitarian ways of producing knowledge for public value. Equally, a conception of policy making based on the assumption that magic concepts and standards can easily be operationalized on the ground by benevolent academics and research assessment agencies is misleading. On the one hand, public engagement with society has now become a gold standard of science and research, based on the optimistic view that scientific knowledge, facts and data are a sufficient ground for rational and legitimate policy making. On the other hand, the democratization of science is a political agenda that reinforces the technocratic concept of the relationship between science and politics, which has been dominant since the 1950s and 1960s. Public engagement, adopted by governments and research programmes as an instrument of democratization, is sometimes premised precisely on the same technocratic assumption that its activities are intended to mitigate. Therefore, collaborative governance seems to be more politically and economically motivated than democratically inspired.

My critical understanding of the political agenda associated with government programmes of public engagement stems also from the gap between its high-level aspirations and the street-level limitations encountered at the local level. On the one hand, national governments decide to adopt strategies to reduce costs and offload service delivery to NGOs, for instance, without an adequate understanding of who the public is, who are the citizens, and what it means to be a citizen in a specific socioeconomic concept. I am convinced that state–society synergy is the best way to strengthen accountability. It is not sensible, however, to expect that citizens will engage in the same way given very different socioeconomic backgrounds. How to motivate citizens to become involved in public engagement activities should be better evaluated and,

generally, discussed by governments at the stage of policy design. [Chapter Four](#) of the book has illustrated the operational difficulties of motivating local communities and groups of citizens by exploring the case of education for sustainability in schools.

### **Public engagement: the benign rhetoric**

As Rosanvallon has suggested, ‘we are moving bit by bit from a polarised political democracy to more disseminated forms of civil society’ (2006: 235). Electoral democracy has undeniably eroded, and civicism has been gaining strength such that the notion of the passivity of citizens needs to be revised. The efforts to promote the involvement and engagement of citizens in research and innovation are consistent with this direction and may have a positive impact on improving trust in scientific endeavours. The new production of knowledge, particularly Mode 2 (Nowotny et al, 2001), as discussed in [Chapter Three](#) of this book, has the advantage of focusing on applied policy problems and contextualized solutions. This promises to build stronger connections to citizens’ demands and needs. However, bringing citizens in can only be meaningful and relevant if public engagement activities foster the promotion of civic culture and civic virtues among all stakeholders and networks (Putnam, 1993). To the extent that promoting civicism is a central, yet often neglected, dimension of citizen science, the role of scientists is not only to open scientific processes and make procedures formally legitimate in the eyes of research funders but also to participate themselves as citizens with the duty to care for others and the collective community.

The findings suggest that agonizing over the crisis of trust in science and the benign assumption that citizen science and public engagement activities with the non-academic public will solve it, is somewhat misplaced. On the one hand, it is useful to move away from a one-way model of public authority that views the role of scientists as educating an ignorant, passive and incompetent mass of people. Scientists themselves are implicated in the mistrust of science, when they alienate citizens with errors, and presumptions of unjustified authority. At the start of the millennium, we certainly needed a critical reflection about the relationship between science

and society, as triggered by national government policies and the EU agenda on research and responsible innovation.

On the other hand, the current direction of change seems to reproduce the polar model discussed by Habermas in 1971 (Habermas, 1971). It reinforces the technocracy versus democracy debate (experts versus citizens) when public engagement is not viewed as civicness promotion; instead, it is viewed as a rhetorical tool to justify the use of public funds (Wynne, 2006) or to recruit patients in large medical data projects (Woolley et al, 2016). The two opposites are represented by technocracy and the decisionistic concept. There is a democratic deficit in both. In the 1970s, as part of the debate on the relationship between science and politics, Habermas made a plea for a democratic model of policy consultation and a move away from technocracy. He rejected technocratic decision-making based on the illusionary assumption that scientific rationality can resolve everything. He also claimed that the decisionist concept is not appropriate insofar as the power and political interests held by policy makers and politicians determine the goals of science. What, then, can be advanced as a third way? He proposed a ‘pragmatist model’, which is inspired by the definition of the public offered by John Dewey. To avoid the two polar extremes, we need to engage the public *à la* Dewey (1927). By this, I mean that the public exists independently and separately from those public officials who only need a public ‘to support and substantiate the behaviour of officials’ (Dewey, 1916, 1927).

Democratizing science is a laudable and convincing government strategy and a positive transformation of the future relationship between science and society in the direction of recalibrating the dialogue between experts and citizens and mutually reinforcing technocracy and democratic accountability. A wide range of public engagement activities have contributed in the last decade to collaborative governance and new models of policy making that bring citizens to the process of knowledge production. Citizen science has been the response to the pronounced neoliberal agenda of marketization reforms associated with NPM in the 1980s, when the entrepreneurial model became the go-to solution for public services delivery and reforms and society was kept to one side. The new participatory push at the start of the new millennium, which is now embraced by most research funding agencies in Europe and

institutionalized by universities, has contributed to improving public accountability and the legitimacy of science (Mulgan, 2003; Mattei et al, 2013, 2016; Mattei, 2019).

The book has highlighted the conflicting meanings of public engagement and the governmental use of this rhetoric to encourage participation. Trust is, however, a much more complex issue and does not squarely fit in any organizational model or decision-making formulation. Some scholars suggest that there are few or no causal effects of co-production on public trust (Dudau et al, 2019). Blaming the incompetent and ignorant masses for its hostility to experts, or its passivity in civic life, is misleading and counterproductive. Scientists are also implicated in campaigns against biotechnologies. A conceptualization that considers citizens as subjects of research is not a useful approach to rebuilding trust in science. The new public engagement arrangements draw upon normative frameworks that operate firmly within a hierarchy of knowledge in ways that contradict their own aims. Future debates on the relationship between science and society might benefit from further critical reflections on *who is the public* to reclaim the civic engagement dimension of social participation, beyond the politically rhetorical use of magic concepts.

# Notes

## Chapter 3

- <sup>1</sup> In Stigler's own Chicago version of the theory, politicians and officials are assumed to be as much profit- or income-maximizers as is any firm.
- <sup>2</sup> It secured the personal endorsement of US President Bill Clinton; he encouraged every American elected official to read it and, in 1992, gave Vice-President Al Gore the task of putting its ideas into effect in their country's federal government.
- <sup>3</sup> The definition of fiscal crisis is not straightforward. For this book, we are interested in the political implications of fiscal crises rather than their economic dynamics. We can therefore define a fiscal crisis as the political compulsion to reduce the public deficit.
- <sup>4</sup> The sources of the tables used by Foster and Plowden are the OECD statistics from 1992 and 1995.
- <sup>5</sup> John Major, in a lecture for the Audit Commission entitled 'Public Service Management: The Revolution in Progress' in 1989.
- <sup>6</sup> The Thatcher government gave schools the opportunity to opt out from local authority control. Thus, schools would have their own budget and gain significant autonomy from local administration.
- <sup>7</sup> Many of the changes introduced by the British government are brought together in the *White Paper on the Citizens' Charter* (1991), in which the emphasis is less on the public as citizens than as customers.
- <sup>8</sup> According to cultural theory, which Hood and Scott use to illustrate their hypothesis, the fundamental features of organizations are associated with the extent to which groups are differentiated from other groups ('group') and the extent to which social transactions or interactions are governed by general formal rules ('grid').
- <sup>9</sup> The 'bureau-shaping' processes are identified by Dunleavy in *Democracy, Bureaucracy and Public Choice* (1991). He claims that top bureaucrats aim to shape public services into a form that makes their

- job more satisfying, that is, by delegating operational or regulatory roles to others and keeping interesting policy work for themselves.
- <sup>10</sup> The intellectuals opposing the system of education imposed by the fascists were writing for the *Rivista di Educazione Nazionale*. They were Giuseppe Radice and Piero Gobetti.
- <sup>11</sup> Article 33 of the 1948 Constitution states: ‘Art and sciences are free and free is their teaching.’ Regarding the possibility of the establishment of private schools, the same article states that ‘private actors have the right to establish schools, without burden for state finance’.
- <sup>12</sup> *Uniformità e equilibri nel servizio scolastico italiano*, Consiglio Nazionale delle Ricerche, Rome, 1991.
- <sup>13</sup> Charter of the Service of Education.
- <sup>14</sup> Mr Berlinguer created the National Technical-Scientific Board on the model of the British boards for assessment of quality and performance.
- <sup>15</sup> The qualification of public manager (*dirigenza pubblica*) is based on national contracts of employment in the public sector. Article 28 of Law 29/1993 establishes the criteria for admission to this qualification: by public competition in the different administrations.
- <sup>16</sup> The old system established a complex network of authorizations and approvals, even for trivial decisions, such as day trips or the purchase of new machinery.
- <sup>17</sup> The Ministerial Decree 765 of September 1997 includes three articles that establish the participation of local communities in the experiment of school autonomy.
- <sup>18</sup> Andrea Casalegno in *Il Sole 24 Ore*, 21 September 1997.
- <sup>19</sup> The environmental conditions refer to the health and safety standards of the buildings and the availability of equipment.

## Chapter 4

- <sup>1</sup> [unesco.reencitizens.org/](https://unesco.reencitizens.org/)
- <sup>2</sup> ‘European Climate Pact Webinar for Organization’, [https://ec.europa.eu/clima/events/european-climate-pact-webinar-organisations\\_zh](https://ec.europa.eu/clima/events/european-climate-pact-webinar-organisations_zh)

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