

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.