

## Call for papers – Special Issue

### Transformation of public innovation policies and major societal challenges: what is at stake?

Guest Editor(s):

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In a context marked by crises and by major environmental and societal upheavals, the intervention of public actors to stimulate and support the innovations of tomorrow seems to have become crucial. However, this intervention raises a series of questions that are both theoretical and empirical, and subject to lively debates.

The first issue concerns the direction of innovations. Should the public actor leave it to the market mechanisms or should he or she guide and/or lead the major innovations of tomorrow? Some researchers highlight the need facing current challenges, to implement mission-oriented policies (Foray et al. 2012; Janssen and al., 2021). According to this perspective, public policies should not only fill market gaps, but anticipate and shape the markets of tomorrow. This leads to a vision of a pro-active or entrepreneurial state (Mazzucato 2016). However, this approach is subject to a number of criticisms: the state would suffer from a lack of skills and expertise to assess risk, to experiment and learn (Karlson et al., 2021 among others), which would lead the state to be influenced by large firms in the definition and implementation of the policies.

A second issue concerns the “Grand Challenges”. These are societal problems often described as “wicked problems” (Rittel and Weber, 1973), because they are complex and/or difficult to predict: global warming, the protection of biodiversity, health issues (pandemics) and the ageing of populations (Kaldewey, 2018) are just a few examples. Faced with these major challenges, traditional policies to encourage and support innovation appear to be increasingly inadequate. Many academic and political actors are indeed warning concerning the need to develop new forms of policies and tools in this area, or even to move towards a radical transition

of all socio-technical systems, involving significant changes in infrastructures, industry structures, regulations and users behaviours (Schot and Steinmueller, 2018, Lamperti and al., 2018). The very nature of the processes at work is also being questioned. In a growing number of fields, it seems increasingly difficult to encourage scientific and technological innovations alone, as the societal dimension of these innovations must also be taken into account (Boutillier et al., 2020, Debref et al., 2022; see also the current trend towards Responsible Research and Innovation (Owen and Stilgoe, 2013). The inclusiveness of stakeholders appears to be a major challenge (even if it raises other problems) in order to generate innovations for and by society.

The type of policy instruments and especially the introduction of digital technologies is the third issue of this call for papers. The United States was a pioneer in this field, particularly in order to allow the citizen becoming involved with the public actor (see Mergel, 2020 and studies in public management). The dynamics of co-production with the citizen (or any stakeholder) on the one hand, and the use of digital tools (platforms for the vast majority of tools) on the other, are closely intertwined, and public innovation policies are a privileged field of experimentation. Sharing knowledge (especially in response to major societal challenges) is essential for public decision-makers, who must set up digital spaces that foster creativity and collaboration, particularly in order to move towards more open innovation, using crowdsourcing mechanisms (Howes, 2006). Policy instruments, such as innovation contests, have received focused attention during the last decades, particularly in the United States and Europe (Liotard and Revest, 2018, 2022).

The question of the governance of national innovation systems (Chaminade and Edquist, 2006) and the forms of interaction of the actors constitute the framework of a fourth questioning including the role of the citizen in the elaboration of open and participative scientific programmes. The movement driven by citizen science (Strasser et al. 2018) is interesting to observe. Amateurs (the general public) can contribute to the production of scientific knowledge. This bottom-up vision, driven by crowdsourcing, and coupled with the possibilities offered by digital platforms (but also artificial intelligence, big data, ...), has had a favourable echo in recent years among public actors who saw it as a way to accelerate their research programme and benefit from information and knowledge from citizens.

A final issue concerns data and intellectual property rights. If public actors wish to increasingly exploit massive data to support the creation of knowledge and the emergence of innovations, what is the status of this data? Who owns it? Which parties may have rights and access to this data? (With regard to the academic spin-off founders, see Ferri and al., 2018). The issue of data leads to questions about public open data policies (Ubaldi, 2013) aimed at making data accessible to the public, whether scientists, researchers or ordinary citizens.

Multidisciplinary contributions are welcome (economics, management, sociology and political science) as well as different methodologies: case studies (for instance applied to Europe, the United States, China...), quantitative studies, theoretical approaches, historical approaches. The themes that can be addressed in this special issue are the following (without being exhaustive):

- Transformations of public innovation policies and their instruments
- Evolution of innovation ecosystems and public policies
- Grand challenges and public innovation policies
- Public policy, responsible innovation and inclusiveness

- Digital technologies – platforms, big data, artificial intelligence, blockchain... – and innovation policies
- Spin-off effects, obstacles and limits of open science
- Public action, intellectual property rights, open data
- Critical view of mission-oriented policies and the role of the entrepreneurial state

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**Timetable for submission and acceptance of papers:**

- **New deadline : July 31st, 2023** : Deadline for complete manuscripts through online paper submission:

<https://jiem.manuscriptmanager.net>

Guideline for authors: <http://innovations.cairn.info/en/instructions-for-authors/>

- **November 30th, 2023 : Expected return from the first round of evaluation.**
- **Early 2024 : Submission of modified versions.**
- **End of 2024 : Planned publication of the special issue**

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