Cultivating the Innovative Region: Participatory Innovation, Citizens and Statehood in Wallonia
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ABSTRACT

Innovation is becoming more and more participatory. Discourses insisting on the desirable involvement of users and lay citizens in innovation-making processes are burgeoning around the globe. This burgeoning is often fostered and supported by innovation scholars whose studies on, and calls for more open and participatory forms of innovation have recently gained traction among public authorities. However, as the appropriation of such scholarly work by public authorities is a recent phenomenon, much remains to be discovered about the interactions between participatory innovation models and the political contexts in which they emerge. In particular, this article offers an analysis of the relationships and allocation of power between the State and citizens that develop through participatory innovation policies. By developing a context-sensitive approach to study the case of Wallonia, one of the federal regions of Belgium, I analyze participatory innovation as a particular mode of government through which public authorities (re)invent themselves and the society they govern. I show that what matters for Walloon public authorities when they promote and set up participatory innovation practices is not only the results of such practices in terms of innovation products, but also and perhaps more importantly the shaping of entrepreneurial citizens as well as the Region that is expected to develop accordingly. Ultimately, this approach allows for critical scrutiny of the politics of innovation and the democratic order it contributes to produce in an economically peripheral region looking for quickly (re)developing itself in order to exist in the global economic competition.

INTRODUCTION

1933. In the midst of the Great Depression, the Chicago World Fair showcased a utopian future made of bright technologies and driven by innovation. The motto of this World Fair was as follows: "Science Finds, Industry Applies, Man Adapts". This motto synthetized a widely shared conception of innovation: a linear process which implies a restricted number of actors and which leaves the major part of society (hereby called 'Man') no other role but to adapt itself to technological development. For a long time, this vision gradually evolved through the emergence of different innovation models that insisted on the multiple interactions between academia and industry, as well as on the role of the State in fostering these interactions. However, the basic assumption that innovation-making involved a restricted number of actors, leaving society at bay, remained influential for a long time.

At the beginning of the 21st century, a range of new approaches opposed to this vision of society as exterior to innovation-making process. These approaches instead portrayed innovation as an "open" (Chesbrough, 2003), "distributed" (Lakhani & Panetta, 2007), "democratized" (von Hippel, 2005), or "participatory" (Buur & Matthews, 2008) process. At the turn of the 2010's, these approaches developed and gained traction as part of what was then described as an alternative discourse challenging the monolithic conception of innovation policies based on centralized innovation (Joly *et al.*, 2010). Indeed, their common ground, and what makes them departing from the 1933 World Fair's motto, is that innovation-making does not solely concern science and industry anymore, but now also involves actors outside of these spheres, such as consumers, end-users, or lay citizens.

Beyond scholarly work, these approaches were progressively taken up by public authorities and incorporated into public policies. The fact that these new forms of innovation today are far from being confined to a status of alternative to dominant innovation policies but are increasingly taken up and promoted at the political level (Macq *et al.*, 2020) calls for analyzes that critically unpack the endorsement of participatory forms of innovation by public authorities. In existing literature, terms such as 'open' innovation, together with 'social', 'responsible' or 'sustainable' innovation, has been grouped under the umbrella term of "X-Innovation", whose emergence is described as challenging "the hegemonic connotation of technological innovation" (Gaglio *et al.*, 2019). The recognition of the "active role of the user in co-production" is often seen as a means of broadening the invocation of innovation to non-economic purposes (Alcaud & Brillet, 2007). The opening of innovation processes to other actors is indeed supposed to be linked to an improvement in the quality of the decision-making process and the social robustness of innovative products (Bacqué *et al.*, 2005; Callon *et al.*, 2009). However, much is still to be discovered about

what drives public authorities in promoting and sponsoring forms of participatory innovation, and how the latter unfold when publicly-driven. In particular, this article offers an analysis of the relationships and allocation of power between the State and citizens that develop through participatory innovation policies. The main questions it tackles are as follows: why and how did participatory forms of innovation become fashionable as to get incorporated into state innovation policies? And what does it tell us about (re)configurations of the relationships between the State and citizens through innovation policies?

By focusing on a polity in which participatory innovation was integrated as a key component of economic and innovation policies (Wallonia, Belgium), I develop an analysis of participatory innovation as a particular mode of government through which public authorities (re)invent themselves and the society they govern. As I show, Wallonia promoted and enacted participatory innovation as both a tool and a goal in itself: this particular form of innovation has been seen as a way to both redevelop its economy – by turning it into a 'creative' one – and to construct the region's identity as a political space – by portraying it as innovative. In this framework, citizens were conceived as a resource to cultivate: because they became perceived as important providers of creative ideas that can be turned into innovative products and services, their creative and innovative mindset was to be nurtured. Public authorities therefore switched their traditional role in innovation policies to one of making the Walloon creative citizen emerge and putting him/her in the adequate conditions to realize its innovative potential.

In the following sections, I start by describing the approach to participatory innovation that guided this research. Then, I further introduce the case and the methods I used for collecting and analyzing the empirical material. In the empirical section, I locate participatory innovation policies in the broader history of innovation policies in Wallonia before zooming in into the specific conception of participatory innovation that was inscribed in regional policies. To look at how policies as associated visions of participatory innovation further evolved, I focus on the setting up of *Creative Hubs* as key sites of the enactment of participatory innovation in the region. Then, I engage in a discussion around two main points. The first relates to the critical analysis that can be developed by unpacking the links between participatory innovation, citizens and the State, while the second is related to the specificity and comparability of Wallonia as a particular context. Finally, I come back the main lessons of this article in the conclusion.

A CONTEXT-SENSITIVE APPROACH TO THE CO-PRODUCTION OF PARTICIPATORY INNOVATION AND STATEHOOD

STS scholarship has a long history of analyzing public participation in science and technology-related matters. Part of this literature insisted on the need to connect participatory processes to the political machine at large, in order to make sense of them in a wider context (Felt & Fochler, 2010; Jasanoff, 2011; Laurent, 2016; Lezaun *et al.*, 2017). These works highlighted the crucial importance of the questions of why participation is considered desirable, which publics is it expected to involve, what the object of participation is and how participation is organized (Delvenne & Macq, 2020; Macq *et al.*, 2020). Recent publications showed that participatory innovation practices are increasingly endorsed by public authorities as means for pursuing different objectives: (re)developing their economies and/or energy systems (Pallesen & Jacobsen, 2021), (re)shaping the way they govern through experiments (Tironi & Valderrama, 2021), or (re)configuring citizens' engagement with culture (Spronck *et al.*, 2021). In the same vein, Delvenne and Macq (2020) showed that participatory experiments are often organized as intense events seeking to extract as much value as possible from participants. Engels *et al.* (2019) noted that specific participatory experiments – test beds – are enacted to test and re-configure society on a local scale around a new set of technologies, envisioned futures, and associated modes of governance. These analyses provide precious insights on how different objectives shape participatory settings in specific ways.

However, this emerging literature tends to focus on *ad hoc* experiences of participation in innovation, with limited explicit link to how these experiences fit into wider coordinated policy programs and related conceptions of the role of the State in and through innovation policies. As noted by Pfotenhauer and Juhl (2017), the innovation policy literature has largely neglected how statehood is being envisioned, enacted, and operationalized through projects of innovation. Yet innovation is not only a mere tool to foster techno-economic development, "it is also a means of governing society through national projects, through the rationalization of state action, and through national identity formation" (Pfotenhauer & Juhl, 2017, p. 83; see also Jasanoff & Kim, 2015). In this paper, I therefore seek to develop an analysis that engages with the co-production (Jasanoff, 2004) of innovation and statehood in order to scrutinize the shaping of innovation agendas and the relationships and allocation of power between the state and its citizens.

To scrutinize the development of participatory innovation policies in Wallonia, I develop a 'context-sensitive' analysis that attends to "the ways situated actors perceive and envision particular policies" in a specific context (Haddad & Benner, 2021, p. 4). To do so, I look at different scales (Wallonia as a polity, its own location within global economies, but also the specific scales at which participatory innovation

practices unfold) and sites (through the analysis of so-called 'Creative Hubs' as privileged sites to see how policies translated into practice). Analyzing the multiple entanglements between sites and scales at play in participatory innovation allows for understanding how innovation and the contexts in which it is conceived and enacted relate. It is also a powerful resource to scrutinize how potentially divergent motivations and visions of innovation emerge through these entanglements and create 'frictions' between different visions held by different actors (Macq *et al.*, 2021). Ultimately, considering these frictions leads to paying attention to asymmetries of power between actors and institutions. A context-sensitive analysis of innovation therefore also allows for attending to which actors are able to shape authoritative definitions of desirable forms and practices of innovation, thereby providing crucial insights into the politics of (participatory) innovation (see also Haddad & Benner, 2021).

CASE AND METHODS

To develop this context-sensitive approach, I focus on Wallonia as a particular polity that, as soon as in 2010, developed a policy program dedicated to fostering participatory innovation. Wallonia is one of the three federal regions of Belgium, along with Flanders and Brussels-Capital. It received executive and legislative competences in 1980, when the Walloon Parliament and Government were created. Throughout the political decentralization of Belgium, Wallonia became competent for a large set of policy domains, including employment, energy, environment, economy, research and innovation, and health.

To collect and analyze the data used in the research, I used an inductive and qualitative research approach. The analysis presented in this article draws on an empirical material made of policy documents, direct observations in participatory innovation sites, as well as 29 semi-structured interviews with a total of 37 key actors (policy-makers and coordinators of participatory innovation sites) conducted between April 2017 and December 2018. Through these interviews, specific attention was paid to how actors make sense of policies and practices. Interviewees were therefore asked about what they considered as the purpose of (participatory) innovation, the publics to be involved, and the type of activities to be developed. They were also asked about how they see their activities fitting into the context in which they evolve, be it the region as a whole, as specific city, or a social community. These interviews were integrally recorded and transcribed *ad verbatim*.

All the data were analyzed with the Nvivo software using a combination of discourse (Fairclough, 2003) and thematic (Braun & Clarke, 2006) analysis. Interpretation is a complex process with various different aspects: it is partly a matter

of understanding what speakers or writers mean, but it is also partly a matter of judgement and evaluation (Fairclough, 2003, p. 11). To perform interpretation in this case, the data were first coded with a list of very descriptive terms in order to have an overview of how what the policies were about and how the actors described and made sense of their activities. These codes were rearranged through multiple re-coding phases: new ones were created and existing ones were modified as I gained deeper knowledge of the case. Through these re-coding phases, more interpretive codes were developed (Braun & Clarke, 2006) as the analysis gained in depth.

LOCATING PARTICIPATORY INNOVATION IN WALLOON POLICIES

As a result of Belgium's political decentralization process, Wallonia gradually received greater resources for technological development on its territory. As soon as the Walloon regional institutions were set up, public authorities produced speeches intimately linking economic progress and technological innovation. The evolution of research and innovation policies in the region allows highlighting the rise of a properly regional research and innovation policy and its embedment in an economic (re)development strategy presented as a central component of the Walloon political project. Since the birth of Wallonia, regional public decision-makers developed policies presenting Wallonia as a polity with strong ambitions based on innovation. Through these policies, important promises of future development are made, in a region that conceives itself as 'lagging behind' Flanders' (the other main region of Belgium) and international economies (van Oudheusden *et al.*, 2019).

The most salient example of this dynamics was the "Priority Actions for the Future of Wallonia", developed and presented by the Walloon Government in 2005. These actions were grouped within a global program, that was soon called by policy-makers and known in Wallonia as the "Marshall Plan". This nickname was a way for Walloon public authorities to link the situation of Wallonia in 2005 to the one of Europe at the end of World War II. In both cases, a major plan was perceived as needed to help society recovering from a critical situation. The Walloon "Marshall Plan" was therefore rooted in the fear of Wallonia's economic collapse after the federalization of Belgium (Accaputo *et al.*, 2006). It included a set of measures to promote economic growth, entrepreneurship and job creation through a focus on regional business innovation and the establishment of 'competitiveness clusters' fostering partnerships between universities and companies. The aim of these measures was to achieve a sustainable economic recovery in Wallonia, building on the region's assets to bring it back among the most competitive regions in Europe. As noted by Fallon and Delvenne (2009), the model of innovation developed was compartmentalized in an instrumental logic of innovation. Within this logic, innovation-making essentially depends on

collaborations between three types of actors: the academia, industries, and public authorities. "Society" was supposed to benefit from the innovations that were expected to be developed by these actors, but had no specific role in in this development. This situation further evolved at the turn of the 2010's, when the Minister in charge of Economy[2] (hereafter "the Minister") initiated a new framework programme for economy and innovation seeking to complement the Marshall Plan: *Creative Wallonia.*

The 'creative turn' and the involvement of citizens in innovation-making

As described in the introduction of the program, *Creative Wallonia* aimed to be "an additional stage in the transformation of Walloon industry in order to respond ever better to the challenges posed by a global and digital world whose only constant is permanent change" (Cabinet of the Minister of Economy, 2010, p. 11). In this framework, creativity and innovation were put "at the heart of the Walloon project, to the point of making it its trademark" (*ibid.*). This new program was designed against the backdrop of an important perceived challenge: in the aftermath of the 2008 economic crisis, the global economy was judged constantly changing at an increasingly rapid pace, making innovation an urgent need in order not to lag behind in the global competition between territories. The program was therefore designed as to be "the most appropriate response in the context of a global, open and constantly changing economy (…) where markets are constantly renewing themselves, where new actors are constantly appearing and where companies are now required to have the capacity for continuous regeneration" (Cabinet of the Minister of Economy, 2010, p. 8).

To complement previous policies, the main idea behind *Creative Wallonia* was the opening up of Walloon innovation policies to actors beyond academic research centers and companies. As the Minister recalled, this was linked to the expansion the scope of 'innovations' that were addressed through regional policies:

> When I became Minister for Economy in 2004, the objective was to reindustrialize Wallonia (…) We swiftly set up the competitiveness clusters policy, whose objective was to change the industrial basis of Wallonia (…) Very quickly, we noticed that there was a methodological bias in this, because we focused on technological innovation. But we know that non-technological innovation, creativity, represents between 70% and 80% of all innovations, and so we started thinking of a program that was released in 2009, *Creative Wallonia*. And *Creative Wallonia* is really about saying: 'we need to generate creativity'. (Personal interview, December 2018)[3]

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[2] This Minister (Socialist Party) was in charge of Economy and other themes from 2004 to 2017. He became in charge of Economy and Employment in July 2004, a position he held until October 2005. In October 2005, his portfolio expanded to "Walloon Minister for the Economy, Employment and Foreign Trade". From July 2007 to July 2009, his portfolio turned into "Walloon Minister for the Economy, Employment, Foreign Trade and Heritage". From July 2009, he became "Walloon Minister for the Economy, SMEs, Foreign Trade and New Technologies". He was reappointed for the last time in July 2014, with the following portfolio: "Walloon Minister for the Economy, Industry, Innovation and Digitalization", a position he held until July 2017.

[3] All interviews were conducted in French. Translations are my own.

Creative Wallonia therefore originates from a will to activate a not-yet-exploited innovation reservoir: creativity, presented as 'non-technological' innovation. Creativity was envisioned as an indisputable asset in the global economic competition between territories. In the view of Walloon public authorities, creativity was a widespread resource held by every citizen. Consequently, the primary ambition of the program was to "involve as many Walloon citizens as possible in an innovative dynamic" (Cabinet of the Minister of Economy, 2010). As the then Minister's chief of staff sums up:

> The idea was (...) something like 'sowing the seeds of creativity to develop innovation throughout the territory', so it's about empowering people, this notion of empowerment, because everyone is creative, it's not just saying 'it's creativity for universities' or 'it's creativity for companies', it's about strengthening the creative capacities of Walloon citizens so that we can see the results in terms of producing innovation. (Personal interview, July 2017)

As this quote expresses, empowerment was recoded as giving citizens the capacity to be innovative. This particular vision was heavily influenced with scholar work in the 'management of creativity' field. In particular, it relied on the work of researchers at HEC Montreal – the Business School of the University of Montreal – that developed theories and good practices around the notion of 'creative economy', especially in urban areas. One of the main ideas of these works is that value creation must take place increasingly upstream of the processes, particularly at the ideation, conception and design phases. Organizations that manage to develop their creative capacity would then have a definite advantage in economic competition (Simon, 2009). The approach developed by Cohendet and Simon also aimed to question the actors of creative processes and the modes of transmission of creativity from the "fertile ground" of the city to the business world (Cohendet & Simon, 2008). In particular, Laurent Simon theorized the links between *Upperground*, *Middleground* and *Underground* in what he calls "creative cities". As he describes in one of his articles:

> Creative cities are structured in three active strata. Firms - *Upperground* - absorb the knowledge emerging from the city's creative activities while actors from the *Underground* explore and propose new creative avenues. In this context, the creative collectives of the *Middleground* assume a function of knowledge integration and transfer between the *Underground* and the *Upperground.* (Simon, 2009, p. 37)

When referring to this framework, a member of Creative Wallonia Engine, the entity in charge of coordinating the implementation of the program in the region, refers to the 'Underground' as composed of all Walloon citizens, and compares it to a "breeding ground" whose "potential" has to be "exploited" in order to generate value in the form of innovations (Personal interview, April 2017). The task of public authorities, in this framework, is both to cultivate the creative mindset and capacities of the

'underground' and to set up a 'middleground' that will allow creative ideas to make it to the market and develop the economy. To realize such a task, *Creative Wallonia* is divided into three main axes, each one corresponding to a specific temporality of the innovation-making process.

The first axis is called "Promoting the society of creativity" and is dedicated to spreading the culture of creativity among the population. It specifically aims at transforming training methods, both in compulsory education and in teachers' training, in order to open them up to creativity. It also includes measures dedicated to open up citizens to creativity beyond educational settings, for example through the creation of an annual 'Creativity Week', a public event dedicated to promoting the culture of creativity to a large audience of visitors.

The second axis, "Fertilizing innovative practices", is dedicated to enhancing innovation-making practices among creative individuals. It specifically promotes networking as a mode of work organization, particularly through the establishment of co-working spaces and innovators' clubs in the region. The general ambition here is to create the conditions for the emergence of "real innovative ecosystems[4]", based on the model of *Silicon Valley* (Cabinet of the Minister of Economy, 2010, p. 13). It also includes initiatives to as the creation of an 'Observatory of trends', with the aim of capturing trends abroad and reinjecting them into the Walloon economic fabric. Finally, in order to demonstrate the success of the culture of innovation in Wallonia, this axis also comprises the establishment of innovation awards, called "Zénobes"[5].

Finally, the third axis of the program is called "Supporting innovative production". It aims to extend the efforts undertaken by *Creative Wallonia* to the step where innovations are put on the market. In particular, this axis focuses on "supporting the transition from the status of innovative prototype[6] to that of marketed product or service, both in the technological sector and in the design sector" (Cabinet of the Minister of Economy, 2010, p. 14). To do so, this specific axis led to the setting up of multiple sites of participatory innovation, such as 'living labs', 'fab labs', and 'creative hubs'.

Through these three axes, the way *Creative Wallonia* articulates creativity, innovation, and participating publics is made even clearer. The program seeks to foster innovation-making through (1) the development of a specific culture – one of creativity and innovation – among the population, (2) the enrichment of innovative

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[4] Bold in the text.

[5] The name of these awards is a direct reference to Zénobe Gramme, a Belgian – born in a region of Belgium that is now part of Wallonia – carpenter presented as particularly inventive, known for having created the Gramme Machine, an electrical generator that produced direct current. Through this name, policy-makers make a clear link with Wallonia's bright past, and affirms their will to promote inventiveness in the territory.

[6] Bold in the text.

practices among individuals within ecosystems, and (3) the setting up of participatory innovation sites in which citizens will be helped to turn their innovative prototypes into marketed products or services.

But who are these 'citizens' supposed to be, exactly? Throughout the program, citizens are conceived as the engine of regional (re)development through innovation. Apart from presenting them as inherently creative, the program in itself remains vague about the citizens that are supposed to participate in innovation-making. However, the Minister makes it clearer when linking his policies to entrepreneurship:

> The observation I made is that we say that entrepreneurship is not strong enough in our region. What is the cause of this? Globally, we are all with our past as if we were born with the memory of our predecessors (...) And so my goal was to support entrepreneurship, and entrepreneurship is to undertake one's life, it is not necessarily to create one's company, it is really a state of mind. And the desire was to say: "how do we generate this creativity and how do we break the traditional codes that say there is no future in Wallonia?" (Personal interview, December 2018)

Seen in this light, *Creative Wallonia* therefore also appears as an anthropological project. Indeed, it is a policy promoting a culture of entrepreneurial citizenship, which, as described by Irani (2019), "promises that citizens can construct markets, produce value, and do nation building all at the same time" (p. 2). As the quote expresses, the support of entrepreneurship is directly linked to the future of Wallonia: creative and innovative entrepreneurs are conceived as instrumental for the economic development and, therefore, for the future of Wallonia as a polity. At this point, it has to be noted that the Minister adopts a rather open perspective on what an entrepreneur is, locating it beyond the realm of economic entrepreneurship. In the next section, however, I show that the way *Creative Wallonia* was implemented in practice tended to narrow down this conception and to actually focus on entrepreneurs as creators of companies.

To better understand how participatory innovation policies developed in practice, the analysis now turns to the first series of participatory innovation sites that were set up in Wallonia: Creative Hubs. Creative Hubs are particularly interesting because they were conceived by Walloon public authorities as the central component of the innovation ecosystem that must be developed in the region. To link them back to the creative economy jargon, they were deemed crucial to make the *Middleground* come into being in order to ensure transfers of ideas between the *Underground* and the *Upperground.*

Enacting participatory innovation through 'Creative Hubs'

The call for projects to fund Creative Hubs was released by the Walloon administration in 2014. In the call, Creative Hubs are defined as "organizational platforms centered on the transformation of the traditional economy to a creative one through the

empowerment of actors by fostering open innovation, transdisciplinary hybridization, and collaborative intelligence". To make sense of this official definition, a policy officer in charge of coordinating the actions of all Creative Hubs at the regional level groups them under the label of "third place of innovation"[7]. This policy officer insists on the synergies that these places allow creating, notably by using creativity tools:

> They are places of unlikely encounters, places where you bring together people who would not have met if they had stayed in their usual working environment. And that are stimulated by all the tools of creativity, where you can find *hackathons,* creative workshops, pecha-kucha, in fact all things like that that allow you to share and be stimulated in a creative way in these third places. (Personal interview, April 2017)

Through this quote, creative hubs appear as spaces that are supposed to act as 'catalysts', as also expressed in the same interview: spaces where an ecosystem of different institutions, methods, and publics are animated to give birth to and foster innovative projects. In line with regional policies, the publics that are supposed to get involved and participate to innovation-making in these spaces are *a priori* more than loosely defined: they are considered as being "people", which basically applies to any citizen. Defined in these so open terms, participatory innovation can be presented as being the business of everyone in Wallonia. However, when analyzing how the actors that organize the activities of these sites conceive what the sites are supposed to be, what activities they are supposed to develop, and what publics they are supposed to involve, things get more complex.

To further explore the different conceptions that infuse Creative Hubs, I will zoom in into one specific Hub: the TRAKK, in the city of Namur. TRAKK was one of the first Hubs to be created in Wallonia. It was set up through a partnership between three entities: (1) the University of Namur, (2) the Economic Office of the Province of Namur (BEP) – a public organization that coaches projects with economic value to help them mature and get to the market –, and (3) KIKK – a non-profit association that aims at building bridges between arts, sciences, design, and new technologies. This partnership is organized through a division of labor: the University of Namur is in charge of studying and providing creative methods to the site; the BEP is in charge of coaching potential entrepreneurs; and the KIKK is in charge of animating the fab lab: a space in the Hub, open to anyone, where individuals can experiment with quick prototyping machines. What is interesting to note here is that this division of labor, and the different activities that the partners are focusing on, are attached to different

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[7] The term "third place" derives from a book entitled Celebrating the Third Place (Oldenburg, 2000), itself a follow-up to a book entitled The Great Good Place (Oldenburg, 1989). In these books, Ray Oldenburg, Professor Emeritus of Urban Sociology at Pensacola University in Florida, refers to social environments that are neither the home nor the workplace. These "third places" – of which Starbucks cafes are supposed to be the most illustrious representatives – are places for the social life of the community, where individuals can meet, gather and exchange informally.

visions of the Hub and the publics it is supposed to involve. This is especially the case between the BEP and the KIKK.

Within the BEP, the Creative Hub is coordinated by the Department of Economic Development. Within this department, the Hub has been conceived from the beginning as a tool for developing new methods for coaching companies and to incorporate them into the different services that the BEP offers as a business and innovation center. This focus on companies is detailed by the Department's Director:

> For us, the TRAKK is really a tool that allows us to either see how to initiate innovation processes in companies through creative processes, to see how these creative processes can generate ideas that will be developed in an innovation process; or to see how, when an innovation process is stuck or does not grow sufficiently, how to boost it with creative tools. (Personal interview, October 2018)

This conception contrasts with the one of the KIKK, which conceives the Hub as a way of democratizing access to emergent technologies to a large audience. For the members of the association, it is crucial not to focus solely on economic value production in order not to miss out the core of what this kind of spaces can offer. They insist on the fact that the TRAKK is above all a space of exchange between different kinds of people, a space that has an important social dimension in that it fosters social cohesion and people's well-being:

> To me, the value of third-places like the TRAKK is to allow for the social dimension, the encounters… If we want to build bridges between disciplines, between people… This is not possible unless we open the door to as many people as possible. If we are too restrictive, then we lose this unlikely encounters aspect and the opening up of the barriers of creation. (Personal interview, November 2018)

When specifying the publics that they see at the core of the activities of the TRAKK, members of the KIKK speak of them as 'makers': individuals who tinker with new digital technologies and who are mainly motivated by a desire to express their creativity, to see what they are able to create, *a priori* without any other goal. A public whose focus is therefore not to produce economic value, which is seen as problematic by the BEP:

> Our main concern it is how to position the Hub with regard to all this logic of makers, of tinkering… But that won't generate revenues that would allow us to ensure the financial sustainability of the Hub. Moreover, in terms of return on investment, it's public money that we are putting into this, and the makers… Well, we have to know to what extent they can generate value on the territory, because it is our objective to generate value, employment, added value. So should the Hub focus on makers or should it focus on start-ups that will generate returns, jobs, and economic growth? And so you understand that given the financial stakes, to us, the Hub must be a place of business. But how can you ensure a balance between the two? How do you make sure that the two coexist? I don't know… (Personal interview, October 2018)

As this quote suggests, the balance between the two conceptions of what the Hub is and what publics it is supposed to involve is hard to find. This balance appears even more complicated by another factor: the way Creative Hubs were funded in Wallonia. Indeed, in order to scale-up the enactment of *Creative Wallonia* and the spread of Creative Hubs across the region, the Government, operating with limited financial resources, decided to have them funded by the European Regional Development Fund (ERDF). As part of the call for projects, the cabinet of the Minister of Economy therefore specifically asked the different Hub projects to apply for the ERDF's 2014-2020 programming period.

Funding Creative Hubs through the European Regional Development Fund

The ERDF finances programs through collaborations between the European Commission and national and regional authorities in Member States of the European Union (EU). It specifically aims to strengthen economic, social and territorial cohesion in the EU by correcting perceived imbalances between its regions. To do so, investments focus on several key priority areas, defined by the European Commission. Within these areas, each region negotiates with the Commission the specific measures it wants to develop. While Walloon regional authorities were developing *Creative Wallonia* and promoting participatory innovation as a means to foster economic development through innovation, they also succeeded in making 'creativity' a key component of the 'innovation and research' area in the Walloon specific ERDF program. As the Minister tells, having Creative Hubs and other sites of participatory innovation funded by ERDF was instrumental for Wallonia to financially afford its ambitions:

> Well, I would say… the European funds were like a financial windfall in which Wallonia had to put only 50% of the money, and the European Commission would put 40%, so we used it as a leverage to set up our different initiatives. (Personal interview, December 2018)

In this way, participatory innovation was considered a key element in the economic development of a region considered in a situation of imbalance compared to more developed ones in the EU. Through their financing by the ERDF, creative hubs *de facto* became means for Wallonia to catch up with leading European economies, making it more difficult to ensure a proper balance with social cohesion objectives.

In practice, Creative Hubs were funded through the Action 2.3. of the 2014-2020 ERDF's program. The main objective of this action was to "increase the number of innovative products and services through the intensification of open innovation and research and development in companies". This action involved a single indicator to evaluate the initiatives developed in the funded sites: the number of companies that

benefit from the Hubs' services. This had important consequences on how these spaces could operate in practice, as a member of the public administration recalls:

> Indeed, the mode of financing greatly influences everything that happens afterwards. The most blatant example is the Hubs and the ERDF (…) In this case, yes, it really conditioned the rest, especially the indicator aspect, because with the ERDF we are now in a more technological innovation axis, with a focus on supporting more companies, on generating economic value… instead of the more social aspects. (Personal interview, November 2018)

As a result, the ERDF financing narrowed down the scope of Creative Hubs and turned them into elements of a chain of operators designed to enable the development of a given technological entrepreneurial project, as a policy officer describes:

> Let's say that I am a Creative Hub, I have a project holder that I feel is mature enough to go and create his business plan and be accompanied. Well, I pass the torch to an entity that do business accompaniment. And the other way around: an operator like that who sees a company that needs an ideation session or a co-creation session, well, he can ask for the services of a Hub for this type of approach. (Personal interview, October 2018)

If this vision of Creative Hubs is well aligned with the one of the BEP detailed previously, it is far less aligned with how the KIKK conceives the site and its publics. The focus on a single quantitative indicator merely concerning companies is criticized by the members of the association as constraining their activities and not reflecting what really matters in such a site, human stories:

> At the beginning, there was a will to go for the European Social Fund instead of the ERDF, precisely to have a more social dimension. But in my opinion, that would have created a mismatch with the BEP's vision who was to be a partner in this initiative. What I find difficult is the fit between the mode of funding of ERDF and its constraints, regarding all the plasticity, the flexibility that creativity demands. In the end we try to fit into the required boxes but it is very often artificial. Also, I think here, in a certain way, we would like to develop this or that action, but we have to think "what would it effectively bring us in terms of indicators?" To me, indicators do not mean a thing, they are just numbers. To me, a number does not represent anything, what matters is the stories that stand beyond numbers. When we listen to the stories, we see that this does not directly generate economic value. (…) I think that behind all this economic value thing, you find human beings, and human beings cannot be thought of in one single way. And so fostering only the economic aspect at the expense of the other, I do not see how it could work. (Personal interview, November 2018)

The funding of Creative Hubs through ERDF is illustrative of and reinforces the focus of participatory innovation sites in Wallonia on economic entrepreneurship, both in terms of activities and publics. Interestingly, this narrowing down of participatory innovation policies is highlighted and criticized by the Minister's former Chief of Staff who drafted the framework-program in the first place. At the time of our interview, in July 2017, he stated that, to him, the program no longer existed, at least not as he had

originally conceived it, precisely because in his view the entrepreneurship dimension was the only one left:

> To me, *Creative Wallonia* doesn't exist anymore. So there is a dimension that has survived and continues to develop, which is the *start-up* aspect, innovative companies, and the rest, unfortunately, it is more or less stifled (…) if you take up photography back in 2014, it was not just that, it was Creative Hubs where we wanted to ensure that the Marshall Plan actors, universities, companies, research centers, could get in touch with the local fabric, in each of the geographic Hubs, that these people had a Fab Lab at their disposal, that there were opportunities to experiment in the social economy, etc. All of this has been very much a dead letter, it's been hijacked. There was really a capture by the economic aspect. (Personal interview, July 2017)

As this last quote and the case of the TRAKK suggest, the economic focus on techno-entrepreneurship that gradually developed in and through participatory innovation policies led to frictions among actors whose conceptions of what 'opening' innovation means diverge. One reading of these frictions may lead to consider them as indicative of a failure of participatory innovation policies: by restricting activities to economic entrepreneurship, *Creative Wallonia* and associated Creative Hubs failed to deliver a widespread participation and a true opening of innovation-making. In this perspective, the added-value of analyzing these frictions would be to identify them in order to find ways of repairing and ensure a 'true' participatory innovation to develop. The approach I develop in this article leads to another take on these frictions. Indeed, by paying attention to how different actors hold different visions of the same policy and resulting activities, it shows that frictions are simply inevitable. The same policy will therefore be considered a failure and/or a success depending on which actor is talking. More than hints of failure or success, what these frictions are indicative of is "whose particular interests, values, and visions of a good, desirable society as well as political choices" become inscribed in innovation policy agendas, and what alternative visions are diminished (Haddad & Benner, 2021, p. 8). Ultimately, then, paying attention to frictions is a way of paying critical attention to the politics of innovation and the (re)production of larger governance regimes and relations of power in a given State through innovation policies.

DISCUSSION

In this discussion, I want to further consider two main points related to the politics of participatory innovation analyzed in this article. The first relates to the critical analysis that can be developed by unpacking the links between creativity, innovation, citizens and the State in Walloon policies. The second is related to the specificity of Wallonia as a particular context and how it can inform broader analyses of (participatory) innovation.

Unpacking the links between creativity, innovation, citizens and the State

The very notion of what 'creativity' is appears ambiguous in Walloon policies. Indeed, while I showed in the previous section that the Minister of Economy tends to present it as a way to go beyond a traditional focus on technological innovation, it appeared inscribed into *Creative Wallonia* as a means to both enrich and foster innovation in technological sectors deemed crucial for economic development – mainly information and communication technologies. As the program developed and innovation sites were set up, this focus on technological innovation was made stronger. Therefore, far from representing a radical shift from technological innovation to an alternative 'X-innovation' (Gaglio *et al.*, 2019), creativity and participatory innovation in Walloon regional policies appear as a way to do more technological innovation by other means.

In fact, participatory innovation is conceived and promoted by public authorities as necessary in a world where these authorities are confronted with different constraints. On the one hand, techno-scientific uncertainty is increasing, public participation has become part of the public agenda, and modes of innovation have evolved so that innovation is no longer perceived as the work of a single isolated actor (Callon *et al.*, 2009). On the other hand, in the post-economic crisis context of 2008, public authorities must tirelessly propose effective responses to problems such as unemployment or declining competitiveness (Joly *et al.*, 2010). Governing through participatory innovation is therefore a way of developing industrial and innovation policies that take these constraints into account. Seen in this light, participatory innovation appears as a means of fostering territorial development through innovation, while delegating to citizens the delicate task of co-creating tomorrow's innovations.

Scrutinizing the relationship between creativity, innovation, and citizens is therefore key here. In a sense, when they promote participatory innovation, Walloon public authorities re-create a vision of innovation as a linear process: when involved, creative citizens will generate new ideas that – once appropriately nurtured and valorized through entrepreneurial projects – will generate innovative products and services. In this linear process, the role of the State is to help creative ideas emerge

and develop by cultivating the entrepreneurial attitude of citizens and developing participatory innovation sites within 'innovative ecosystems' to bridge the gap between ideas and market applications.

Scrutinizing this reconstructed linear process of innovation leads to unpack who is considered a relevant contributor to innovation-making in Wallonia, and how the participation of this relevant public is configured. In terms of which publics are to be involved in innovation-making, the Walloon instrumental vision of participatory innovation indeed rests on the assumption that "everyone is creative", which also lies at the core of co-creation approaches (Sanders & Stappers, 2008). As it is used in official documents and discourses, the term "creativity" seems to merely describe one's capacity to have new ideas. So openly conceived, it is of course a powerful instrument of mobilization: everyone can indeed have new ideas, so any citizen can be part of Wallonia's future. However, I showed that the "Creative" Wallonia that is expected to develop is not just a society where new ideas pop up. It is a society in which new ideas are turned into innovative products and services, with entrepreneurship as the preferred way to valorize these innovations. Therefore, the State does not really let to citizens the task of *freely* co-creating tomorrow's innovations. As the implementation of participatory innovation policies in practice shows, the role of the State *de facto* goes beyond merely "helping" creative ideas to be turned into innovative products and services. Most notably, I showed that the way it funds (or make other entities fund) participatory innovation sites plays a major role in shaping the direction of participatory innovation practices: by shaping the expected outcomes of participatory innovation, as well as the nature of the publics that are to be involved in such practices.

Overall, participatory innovation policies in Wallonia therefore reveal a reshaping of the "biopolitical relationship" (Pfotenhauer & Juhl, 2017, p. 82; see also Jasanoff, 2011) between citizens and the State, in which the latter exerts its power in conducting the conduct of the former (Foucault, 1982) as to generate innovative citizens. Putting the State at the forefront of analyses of participatory innovation therefore allows for critically scrutinizing the democratic ordering that is shaped by participatory innovation policies as instruments of government.

In this respect, Walloon policies tend to speak of citizens, users, consumers and entrepreneurs as a global set of publics to be involved in innovation. However, conceiving participating publics in terms of users, consumers, and entrepreneurs reflects a profoundly individualistic view of citizenship (Barber, 1998). The potential of democratizing innovation governance through participatory policies therefore has to be critically scrutinized. Participatory innovation as promoted and enacted through *Creative Wallonia* presents what Swyngedouw (2005) coined the "Janus Face" of

participatory policies: it did enabled new ways for citizens to participate in a therefore somehow democratized production of innovation. However, it also developed with an economic focus on techno-entrepreneurship that values individuation and self-realization through success on the market rather than a more profound and collective empowerment of civil society.

This is also directly rooted in the reconceptualization of the valued citizen as a creative one. As critically analyzed by Peck (2010), the "creative class" (Florida, 2002), so much sought-after by public authorities, appears as "an atomized subject, with a preference for intense but shallow and evasive relationships, taking place mainly in the sphere of consumption" (p. 198). The "creative class" thus has little capacity for collective meaning. Moreover, as Peck (2010) notes, assuming the existence of a "creative class" is tantamount to assuming the existence of a "non-creative" population, which would be asked to passively observe and wait for the creative class to generate a new socio-economic order on its own and for itself. This inequality between creative and non-creative people is under-problematized in the institutionalization of participatory innovation. Yet, it is crucial to analyze it critically in order not to simply increase social and economic inequality. Peck perfectly sums up the expectations of the creative class and the potential danger of this vision:

> So while everyone is creative, some are obviously more creative than others, and there are still some who "just don't get it". In other words, the creative class generates growth, the others live off the loot. (...) The problem is that the creative class, which has become a particularly restless factor of production, motivated by extrinsic rewards and the pursuit of happiness, is apparently constituted in like-minded enclaves, without concern for the broader social consequences, perhaps even without concern for society at large. (Peck, 2010, p. 210-212)

The risk is then great, through these public policies, of seeing the (re)creation of an urban elite, presiding through its inclusion in processes of participatory innovation in the definition of a certain common good, but nonetheless unable to think beyond the interests of the sum of the individuals that make it up. The promotion and implementation of participatory innovation in territories for the purpose of regional (re)development therefore runs the risk of increasing inequalities between the citizens who populate them, as well as drastically reducing the possible openness of scientific and technological choices.

Following the context-sensitive approach developed in this paper, this critical analysis is intrinsically linked to a particular territory. In the second part of this discussion, I reflect on what potentially makes this territory both singular and comparable to other ones.

A research agenda for context-sensitive analysis of innovation in the periphery

As show in the empirical section, to understand why participatory innovation gained traction and got integrated in Wallonia's policies, one has to take into account the specificity of Wallonia as a polity. It appears that Wallonia has, from the very beginning of its existence, made innovation a key component of a political project of identity-building through economic (re)development. Developing this project was crucial for Wallonia as polity that considers itself as lagging behind in the global economic competition between territories. This was felt ever more pressing by regional authorities in the aftermath of the 2008 economic crisis, when the global economy appeared ever more uncertain, made of rapid and unpredictable changes.

In this specific context, Walloon authorities searched for innovation models that would allow them to go beyond existing policies in order to mobilize new resources for generating more innovation in the territory. The resulting new policy was heavily influenced by different models: Montreal's creative cities, Silicon Valley's innovation ecosystems, or the MIT-based living labs.

The observation that (innovation) policy models travel and are adapted in different contexts has been made in both STS (Pfotenhauer & Jasanoff, 2017) and political economy (Peck & Theodore, 2015) literatures and through a variety of different contexts. What appears more specific to the Walloon case is the felt need, in policy makers' minds, to find new so-perceived best practices to tackle a situation perceived as critical. In this sense, the analysis developed here is at least partially one of policymakers that sought to mimic foreign models perceived as already working elsewhere as ready-made solutions, a tendency that is common to many peripheral countries and regions (Brandão & Bagattolli, 2017; Haddad & Benner, 2021; Kuhlmann & Matamoros, 2017). In this perspective, focusing on Wallonia contributes to advance an innovation agenda that suggests investigating "innovation in the periphery" as opposed to successful core regions (Eder, 2019).

However, more than merely mimicking foreign models, Walloon authorities translated these models and, by doing so, adapted them to the local specificity of Wallonia. In order to advance this agenda of studying innovation in the periphery, I therefore argue that analyses need to look both at what models are mimicked and why, as well as at how these models get transformed during the mimicking process. In line with what Irwin *et al.* (2021) suggest, the context-sensitive approach followed in this article therefore allows for developing a focus on both isomorphism and difference in innovation policies. In this process of adaptation of foreign models of participatory innovation, I showed that a key element to consider is the specific funding instrument that was used by Walloon authorities. As described in the empirical section, Wallonia decided to have its policy partially funded by ERDF, a fund

that it could benefit from as a region whose GDP per capita is lower than the EU average. This move allowed Walloon authorities to set up participatory innovation spaces – thereby allowing these spaces to exist in the first place and get seven years of funding – as much as it considerably constrained the activities of these spaces. In fact, while allowing Wallonia to develop local initiatives, the ERDF acted as a vector of "coercive isomorphism" (Irwin *et al.*, 2021, p. 2): it forced local initiatives to fit into global – European – standards focused on entrepreneurial firms and opportunities rather than on the involvement of widespread participation of Walloon citizens. In this case then, the peripheral nature of Wallonia influenced both its search for foreign models and the way these models were adapted to their host context.

As argued throughout this article, the policies, visions, and actors analyzed should be interpreted in light of the particular context in which they unfold. Nevertheless, the 'lagging' nature of Wallonia is both what makes it specific and comparable to other regions. In this sense, it opens fruitful inroads into context-sensitive analyses comparing case studies across regions, a task that was out of my scope here.

CONCLUSION

Through this paper, I intended to shed light on why and how participatory innovation became fashionable for a whole polity as to get incorporated into regional economic and innovation policies. By analyzing participatory innovation as conceived, promoted, and enacted in Wallonia, I showed that the involvement of a variety of publics in innovation-making gained traction among policy-makers as a way to boost innovation in the territory, which was conceived as urging for the economic (re)development of Wallonia. As argued, putting the (regional) State at the forefront of the analysis allows for critically scrutinizing the ways in which participatory innovation serves other purposes than the sole opening up of perspectives in innovation-making. This critical scrutiny helps highlighting a particular politics of participatory innovation, as conflicting visions enter in friction and some gain more traction that other. In this perspective, I analyzed the institutionalization and development of participatory innovation as reconfiguring the relationships between the State and citizens in a certain way. Participatory innovation appears as a mode of government through which Walloon authorities seek to cultivate creative and innovation citizens for the sake of a creative and innovation Region. As showed, this mode of government tends to focus on economic techno-entrepreneurship as the form of citizenship most valued for the development of the territory. Far from representing a radical shift from technological innovation, then participatory innovation in Walloon regional policies appear as a way

to do more technological innovation by other means. Ultimately, as discussed, the specific case of Wallonia calls for further analyses of the way participatory innovation develops in peripheral regions.

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