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AN INNOVATION PLACE MODEL FOR THE ANALYSIS OF CREATIVITY AND SOCIAL INNOVATIVENESS IN SELECTED FRENCH AND POLISH METROPOLISES

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Abstract. The article's starting point is the assumption that, because of their socio-cultural and economic diversity, density, and complexity of interaction systems, metropolises provide a sufficient basis for creating innovation – including social innovation emerging from residents' grassroots activities. Such perspective emphasises the importance of the creative potential of residents, as materialised in emerging innovation places and collectives operating and dispersed throughout the city. Assuming such a perspective made it possible to build an original model for this study of an innovation place that combines the features of classical and dynamic theories of place. In the empirical portion of the article, the data obtained during the study of ten selected innovation places located in three European metropolises are analysed. The study used qualitative methodology: in-depth interviews and observations. The study's main objective was to assess the utility of the model of the innovation place as a tool for identifying and analysing metropolitan social innovation. This objective has been achieved, and the data obtained showed that, by using the model with characteristics typical of an innovation place, it is possible to effectively analyse the process of creating social innovation, indicate its determinants, and reveal differences in the innovation places under study.

Keywords: commons, creativity, innovation place, metropolis, place, social innovation.

Introduction

This article presents the analysis of research on innovation places in three European metropolises: Lyon and Saint-Étienne in France and Górnośląsko-Zagłębiowska Metropolia (GZM) of Silesia, Poland. The analysis included in this paper uses the idea of an innovation place (Bierwiaczonek et al., 2020) as a heuristic tool for identifying formal, informal and bottom-up processes of generating social innovation. The proposed perspective broadens the knowledge of the determinants that generate social innovation in metropolitan areas.

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The focus on metropolises is related to the belief that the socio-cultural and economic diversity of these areas, the density and complexity of their systems of interaction provide a sufficient basis for creativity, hybridisation of ideas and synthesis of new practices which may (but do not always) lead to creating innovations. In this context, metropolitan areas may be seen as social and political laboratories from which emerges the world of tomorrow and holds the responses to ecological, climate and sanitation challenges that require new solutions and social practices. However, this does not indicate that the authors share the belief that innovation is created in every metropolitan area, or that these areas have a monopoly on innovation. Social innovation may be successful outside metropolises (Daval & Besson, 2021), namely in rural areas, where it may be facilitated by reduced availability of resources and weaker market pressure, motivating the residents to come up with new solutions to improve the quality of life.

The interest in social innovation generated in metropolitan areas is also dictated by growing criticism of the neoliberal and extractive model of their functioning (Bouba-Olga & Grossetti, 2018). Criticism of the capital-centred and extractive model of urban development has been further enhanced by the ecological and sanitation crisis associated with the COVID-19 pandemic. It turns the metropolitan areas into privileged spaces for creating alternative narratives of urban development that support the search for new models of life in urban areas, which constitute a large and ever-growing part of the planet's inhabitants.

The main objective of the article is to assess the utility of the model of the innovation place as a tool for identifying and analysing metropolitan social innovation. Using the model with characteristics typical of an innovation place, the authors analyse the process of creating social innovation, indicate its determinants, and reveal differences in the innovation places under study. The research resulted in expanding the innovation place model to several categories not included at the starting point, which raises the model's explanatory and heuristic potential.

The above ideas will be expanded further in the article. The first part is theoretical in nature. It focuses on the signals of emergence of a new paradigm for urban and metropolitan development with the key aspect of leaning on bottom-up social innovations. Moreover, this part presents an original concept of an innovation place used later on in analyzing the obtained data. The second part of the article is devoted to research methodology. It presents the scope of research, describes the applied qualitative research approach and the manner of collecting and analyzing data. The main part of the article features the presentation of research results regarding the selected innovation places. The analysis results are grouped according to three key elements of a place, namely its location, meanings and the actions undertaken therein. This part also presents an improved model of an innovation place, supplemented by categories that proved important in the light of the carried out research. In the final part, the results are discussed and the most important conclusions are drawn.

1. Above growth and attractiveness – new paths of development for metropolises based on innovation places and bottom-up dispersed innovation[1]

Observations and studies of sources indicate the existence of weak signals (in French: *signaux faibles*) of a slowly emerging new paradigm of urban development (Pyka, 2021a), manifested by new narratives and still niche innovation social practices in cities that reflect them (Anheier et al., 2018). The foundations of this new approach to the city may be simplified to encompass two dimensions. First, it is about moving from the "extractive" (Vasselon, 2018) and "capital-centred" (Gibson-Graham, 2006) model of developing metropolises, on the basis of attractiveness and growth towards seeing a metropolis as a source of alternative solutions and development based on social innovation (social innovation model of local development) (Oosterlynck et al., 2013), which favours the generation of urban commons (Brossaud et al., 2019) with engaged participation of residents. The second sphere concerns the transition from the strategy of "decreeing innovation" by public authorities in formalised organisational structures (clusters, science and technology parks, *etc.*), towards the concept of "bottom-up dispersed innovations" emerging from informal communities and urban spaces (see Thompson, 2019). Such spaces constitute unique "innovation places" (Bierwiaczonek et al., 2020), a heuristic concept postulated by the authors. Researchers observing the shifts outlined above propose different terms for the emerging new model of the city, referring to them as "a collaborative city" (in French: *ville collaborative*) (Peugeot, 2014) or "a city in transition" (in French: *ville en transition*) (Krauz, 2014); some even see the new model city as a *FabLab* (Fabcity) (Díez, 2013). The collaborative city fits into a broader trend associated with the emergence of a "resilient society" (Ambrosino et al., 2018), which replaces its counterpart – the departing post-industrial society. Therefore, the collaborative city is displacing the concept of a creative city which dominated the scene to date: the place of an expert, an artist, or an engineer is taken over by a citizen, a craftsman, a maker; the creative districts are replaced by "third places", and the consumer by an actor-consumer (in French: *consommacteur*), or a prosument (Pyka, 2015). A common denominator for these concepts lies in undermining the official top-down innovation and accepting the role of bottom-up creative potential of the citizens. It is materialised in the grassroots innovation places scattered around the cities and the collectives acting within them to create social innovations. These are understood as novel ideas and solutions or alternatives to the currently implemented ones that aim to improve living conditions and to satisfy various social needs, contributing to increasing opportunities for cooperation and strengthening social ties (Mulgan et al., 2006; Murray et al., 2010; Bukowski et al., 2012; Djellal & Gallouj, 2012, p. 39, Zajda, 2015; Bień et al., 2020).

Research on urban creativity and innovation, especially when social innovations aimed at the city and its inhabitants are also included within the scope of research interests, requires the identification of places and collectives within the city space where urban creative potential is transformed into an innovation. This is not an obvious statement as these places and collectives often operate outside of the institutional circuit, and are largely diversified

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[1] The theses presented in this chapter come from Robert Pyka's speech during the seminar entitled "A la recherche de nouveaux modèles de 'lieux d'innovation' dans les métropoles de Lyon et de Saint-Étienne". "De lieux totems aux nouvelles formes des hétérotopies métropolitaines", presented as part of the À la rencontre des mondes urbains series organized by Le Laboratoire d'Excellence Intelligences des Mondes Urbains at the University of Lyon, France, on 15 June, 2021 (Pyka, 2021a, 2021b).

in terms of their organisational form, objectives, activities, economic model, and relations with public institutions.

The research into bottom-up urban innovations generated rich source literature containing different approaches and ways of determining these new forms and places of grassroots manufacturing of the city. Due to the scope of the article, and to simplify matters, two approaches to bottom-up analyses of urban innovations may be indicated. The first includes approaches that use the concept of place or space as the starting point of their analyses, *i.e.*, collaborative spaces (Boutillier et al., 2020), spaces of creativity and innovation (Aubouin & Capdevila, 2019), and innovation laboratories (Osorio et al., 2020). The second encompasses the interactive dynamics of actors seen via the prism of communities and creative collectives (Simon, 2009), communities of practice (Lave & Wenger, 1991; Amin & Roberts, 2008), epistemic communities (Knorr Cetina, 1999; Cowan et al., 2000; Cohendet et al., 2014).

An attempt to move beyond this duality lies in the concept of an innovation place (Bierwiaczonek et al., 2020), proposed by the authors, which combines the classical understanding of a place (*e.g.*, Canter, 1977; Relph, 2022; Lewicka, 2012; Seamon, 2012) with its dynamic and processual understanding, as suggested by Doreen Massey, who defines places as "articulated moments in networks of social relations and understandings" (1991, pp. 28–29). The proposed interpretation of a place reflects the complexity and interdependence of modern phenomena of the global era (Morin, 2014), which must be taken into account. It is impossible to comprehend the emergence of creativity and innovation from complex social urban systems if the sole point of focus is the sum of resources available in specific physical locations at the local level.

An innovation place may be defined by showing the interdependence between its three basic reference points, beginning with metropolisation, the very place and innovation activities (Figure 1). After Massey, this first component points to the global dimension of the place, which, through metropolisation, remains globally interconnected. Because of the metropolisation phenomenon, places in the centre of metropolitan areas, and those on their peripheries, have a chance to integrate with the wider space, the global space of flows (Castells, 2009), gaining access to almost unlimited resources (ideas, concepts, perspectives and people); these circulate on a global level, powering and enriching each individual place, its diversity, and its constituting matter for potential, but not self-acting, synthesis of innovation.

Despite its global interconnected and communicative nature (Kotus et al., 2018), the place as a physical location, and the meanings and values (in Latin: *genius loci*) associated with it, act as key components in creating new connections between the diverse resources reaching the location.

Finally, innovation places host innovative activities, the impulse for which comes from achieving the sense of being at home, of openness and trust, which translate into a readiness to take risks and to experiment. In this process, physical or virtual proximity is transformed into other dimensions of closeness – social, organisational, or cognitive – which allow collective rationality and creativity to be revealed (Innes & Booher, 2010). Creativity constitutes a potential typical for innovation places, one that must be activated through engagement and empowerment favouring individual and collective activities that stimulate the process of innovation. New ideas become innovations when they penetrate the social practice, which becomes diffused and contributes to solving specific problems or satisfying social needs (Hochgerner, 2012).
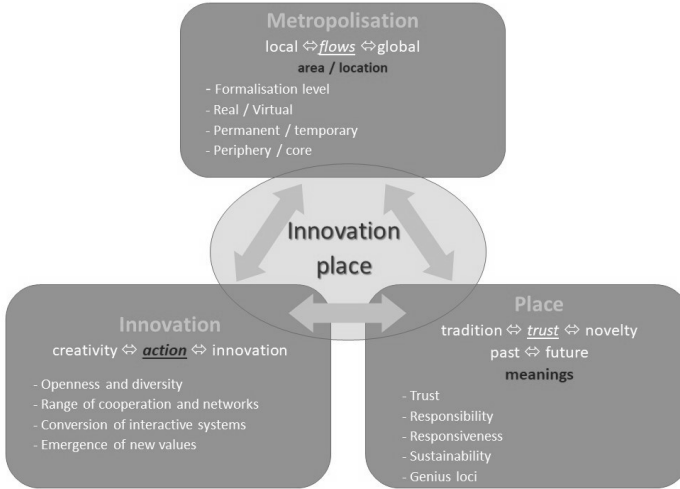
Figure 1. Dynamics of the innovation place and its components (source: created by authors)

2. Methodology of research on innovation places

The research analysed in this article is preliminary in nature. Its main objective was to assess the suitability of an original concept of an innovation place as a tool for identifying and analysing the metropolitan social innovation. Another objective was to describe the features of innovation places which allowed to pinpoint the differences between the analysed innovation places and understand the process of generating social innovation as well as outlining its conditions. A third, additional objective was to potentially supplement the concept of an innovation place with new features identified in the course of the analysis.

Models in social sciences are described in many ways (Pabjan, 2004). In this analysis, the concept of a model is understood in a sense close to the Weberian ideal type (Weber, 2002; Casadei et al., 2021). The model "is not really a template, defining 'as it should be', but rather an abstract theoretical scheme, allowing the surrounding reality to become structured" (Bielanowska, 2019, p. 96). It is designed to capture the elements of reality and bring it closer, to indicate real-world features related to the problem, as well as point to important relationships between characteristics tied with the studied phenomenon (Frankfort-Nachmias & Nachmias, 2001, pp. 60–61). For this reason, the model should be viewed as something that "provides a touchstone that allows one to describe its significant elements, to measure it and compare it" (Oliverio, 2020, p. 4). The case analysed entails checking the explanatory potential of the developed model of an innovation place. At this point, the essential thing is to recall that the classical triad defining the place – location, meanings (values), and activities – was expanded by adding their characteristics in relation to the functioning of an innovation place:

1. the formalisation and nature of location;

2. the meanings referring to trust, responsiveness, responsibility, approach to sustainable development, and *genius loci*;

3. the activities – social and innovative, their inclusivity and diversity of actors undertaking them, which may lead to the emergence of qualitatively new relationships, ties and group structures in the innovation place as well its surroundings.

The focus of the analysis is the assessment of the degree to which the categories forming the model of an innovation place are useful in identifying and characterizing such places in metropolitan areas. This purpose governed the research procedure, with its distinguishable four basic stages: the selection of the study area, the selection of specific innovation places to study, the implementation of empirical research, and the data analysis.

The research was carried out in three metropolitan areas: the GZM of Silesia, the metropolitan area of Lyon, and Saint-Étienne. This choice was deliberate and primarily guided by the authors' acquaintance with these metropolitan areas (Bierwiaczonek, 2010; Pyka, 2016, 2018). Reaching bottom-up an informal innovation places required the familiarity with the terrain, hence the choice of metropolises well-known to the authors as this aspect increases the chances of efficient identification of innovation places within the timeframe of the research project. Conducting the study in two countries held comparative and cognitive significance.

The second step was to choose places in which the research would be carried out. Since a list of as-is innovation places does not exist, especially when it comes to informal ones and those operating outside of the institutional scope, the choice was deliberate, which is a common practice in qualitative research. The primary criterion for selecting innovation places[2] for the study was their diversity. While choosing, attention was paid to differences related to the location within the metropolitan area (relative to its centre[3]), the legal status of the place, the activity carried out in the place, and the logic of its establishment. The process led to the selection of 10 innovation places in which the study was carried out. The summary of basic characteristics of the surveyed places may be found in Table 1 below.

Table 1. Basic characteristics of innovation places selected for the study (source: created by authors)

RESEARCHED PLACE	CHARACTERISTIC			
	Location	Status	Type of activity	Establishment process
Hackerspace Silesia	Semi-periphery of Katowice, Poland	Association	Workshops and meetings related to programming and experimentation	Bottom-up

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[2] To simplify, the text uses the concept of an innovation place, although during the research stage these locations were identified as potential innovation places.

[3] In the case of Upper Silesian metropolitan area, it should be emphasised that it is in fact a conurbation area composed of 41 municipalities. The central city is Katowice, Poland (about 290 000 residents), with a few other cities only slightly smaller than Katowice. For this reason, when determining the location, we refer to the locations both in relation to the centre of Katowice and the city in which a particular innovative place is located.

End of Table 1

RESEARCHED PLACE	CHARACTERISTIC			
	Location	Status	Type of activity	Establishment process
Porcelain Factory	Semi-periphery of Katowice, Poland	Foundation	Industrial and technology park, lease of spaces, organisation of events, location of companies (mainly related to the creative industry)	Bottom-up
Centrum Zimbardo	Semi-periphery of Katowice, Poland	Association	Activities engaging and empowering the local community, revitalisation and activities supporting the youth	Bottom-up
Factory Full of Life	Periphery of Katowice (centre of Dąbrowa Górnicza, Poland)	Municipal company	Establishing a new centre of Dąbrowa Górnicza in post-industrial areas, organisation of cultural, social and popular science events	Top-down
Stable Foundation	Periphery of Katowice (centre of Siemianowice Śląskie, Poland)	Foundation	Activities involving and empowering the local community, international co-design workshops	Bottom-up
MediaLab	Centre of Katowice, Poland	Municipal institution	Making big data public, workshops and projects related to new technologies	Top-down
TUBĀ Lyon	Centre of Lyon, France	Association	Living lab, a hub connecting non-governmental organizations (NGOs) with local government units and businesses focused on new technologies, renting rooms for co-working	Top-down
Crefad Loire	Centre of Saint Étienne, France	Association (local branch of a nationwide association)	Activities involving and empowering the local community, adapting vacant buildings	Bottom-up
Zoomacom	Center of Saint-Étienne, France	Association	Information technology workshops and meetings, anti-digital exclusion activities	Bottom-up
Locaux Motiv'	Centre of Lyon, France	Association	Place gathering and networking NGOs and social enterprises	Bottom-up

The classical sociological technique of in-depth interview was used while carrying out the empirical study (Mayntz et al., 1985; Babbie, 2004; Kvale, 2010). The choice of such a research technique and, at the same time, the use of a qualitative research paradigm resulted from particular research aims, especially those related to identifying the intensity of the features of innovation places based on the adopted model. The diversity of innovation places as well as the alternative organisational and economic models developed in them require an approach that captures atypical phenomena, the occurrence of which the researcher cannot predict. In such cases, qualitative research through in-depth interviews yields better results than quantitative research methods. Such procedure required referring to the knowledge of social actors associated with the researched places. Two in-depth interviews were conducted with key social actors at each selected location. The interviews were conducted on the basis of prepared guidelines, focusing on categories relating to the model of an innovation place. A total of 20 in-depth interviews were conducted[4]. They were carried out from November, 2020 to May, 2021. Due to the restrictions of the COVID-19 pandemic, some of them took place via online messengers. Upon obtaining the consent of the interviewees, the interviews were recorded and then transcribed. Additionally, the researchers visited each of the analysed places, using the opportunity of being present to observe their functioning, the atmosphere prevailing in a particular place, the layout of rooms, the interior furnishings, and accessibility. The data gathered during the in-depth interviews and observations were analysed using an original tool – the matrix of an innovation place. The matrix included the main categories of an innovation place, such as: location, action, meanings and other detailed categories related to them (see Figures 1–2). Every researched innovation place was characterised with reference to one of the categories and its features. The matrix was created using the *Microsoft Excel* software. Each of the analysed characteristics, if not stated otherwise in the text, was evaluated according to a four-point scale: (+++) signifies a very strong presence/meaning of a particular feature; (++), a strong presence/meaning of a particular feature; (+), a poor presence/meaning of a particular feature, and (0), the absence of a particular feature. The applied scale reflects the qualitative approach by pointing to a smaller or larger role of a given feature in comparison to other ones. This assessment is performed on the basis of an intersubjective evaluation by the members of the research team (the authors of the text and Suchacka and Gawron). As illustrated in Table 2 below, the order of analysis corresponds to the order of characteristics in an innovation place: from location and formalisation, through meanings and values, and onto activities undertaken on the basis of all the aforementioned factors.

3. Innovation places – data analysis

The climate and energy crises, COVID-19 pandemic, and other modern challenges have shown that cities and metropolises have to respond to new conditions. It is impossible without innovations, including social innovations. They can be generated in various areas (also outside of the metropolis), but the social density and variety of accumulated resources undoubtedly favour social innovations in metropolises. Because of their character, they often

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[4] The interviews were conducted by the authors of the text and Dr hab. Małgorzata Suchacka, prof. UŚ (University of Silesia in Katowice (USK), Poland) and Dr Grzegorz Gawron (USK) – members of the research team.

arise outside of the institutionalised current, in place where the bottom-up creativity of citizens trying to "fix" their city on their own can transpire. Identifying innovation places is not an easy task, especially when it comes to those operating outside of the official register and those stemming from informal activities of the inhabitants of a given metropolis. The model of an innovation place and the specific features that characterise it make it possible to identify, describe and understand the logic behind their functioning. The upcoming part of the article presents the analysis of features of the researched innovation places, arranged according to the main three dimensions of the model of an innovation place, namely location, meaning and action.

4. Location – area

The first set of important elements of the concept of an innovation place is its location, its character, functioning, and position in the space of places and flows (Massey, 1991; Castells, 2009). An innovation place may be devoid of a physical location (fixed or temporary), but its possession is most often a significant resource in symbolic, proxemic and pragmatic dimensions (Pyka, 2021b). The location of the place in the centre of an urban area or, possibly, on its periphery, and the issue of possessing headquarters (premises), both also affect its organisation and level of formalisation; all of the above relate to the model of managing the place (ordered chaos/hierarchy) and its economic model (social mission/commercialisation).

Table 2. Assessment of features of the analysed innovation places related to their location (source: created by authors)

ANALYSED LOCATION/ DISTIN-GUISHING FEATURES	LOCATION						
	Physical location				Formalisation level		Periphery or core
	Permanent/ Temporary	Symbolic resource	Proxemic resource	Pragmatic resource	Hierarchy/ Ordered chaos	Social mission/ commercialisation	
Hackerspace Silesia	+++	0	+++	++	+++	+++	++
Porcelain Factory	+++	++	+	+++	+	+	++
Centrum Zimbardo	+++	++	+++	++	++	++	++
Factory Full of Life	+++	+++	++	+	+	++	++
Stable Foundation	++	+++	++	+	+++	++	++
MediaLab	+++	+	++	0	++	+++	+++
TUBĀ Lyon	+++	+	+++	+	+	++	+++
Crefad Loire	+++	+++	++	++	++	++	+++
Zoomacom	+++	+	++	++	++	++	+++
Locaux Motiv'	+++	++	+++	+++	+++	++	+++

4.1. Physical location

Although an innovation place does not need to have a specific location, having its own head-quarters (premises) is a vital resource for direct meetings of actors associated with the place. This does not preclude relationships with partners, maintained off-premises (also virtually). While assessing this physical dimension, it was assumed that innovation places may have a permanent seat (+++), a temporary one (++), no headquarters but in the pursuit of having them (+), or finally (0), signifying no headquarters as a conscious choice of actors at the innovation place.

All potential innovation places studies here had their permanent, physical headquarters. However, some of them have recently changed their address (*TUBĀ Lyon*) or did not rule out the possibility of changing as a result of spatial restrictions in their current location (*Centrum Zimbardo*) or of new development projects (*Crefad Loire*, *Stable Foundation*). A stable location gives the ability to operate on the basis of specific spatial resources. Apart from physical headquarters, all of those analysed innovation places established their presence online, with the level of expansion and use in daily functioning of the place depending on the type of activity. Network activity (virtual) makes it possible to go beyond one's location and access wider social, material and intangible resources, potentially fostering innovation by combining the local dimensions of the place with global resources. Thanks to their online presence, those places were able to sustain their activities during the COVID-19 pandemic. Innovation places focused on digital design and technologies, and with open access to data (*Hackerspace Silesia*, *Zoomacom*, *MediaLab*), utilised their virtual space much more frequently in their creative processes.

Regardless of the approach of the collectives of innovation places to the issue of having a physical location, for a majority of them, the place constitutes a fundamental benchmark and often also a key resource, recognised in at least three dimensions: *i.e.*, symbolic, proxemic, and pragmatic. The proportions by which specific innovation places mobilise these resources determine their specificity and varied manners of acting.

The symbolic significance of the location, building, or site may refer to its specific history and functions it once performed, which will be mentioned in the next point about the "meanings of the place" (*genius loci*). Thus, having a physical location enriches the innovation place with symbolic resources. These may be the subject of work, or the reflection of actors associated with a given innovation place, particularly when this location is transformed (*e.g.*, during revitalisation). These meanings may then be reproduced and developed – or reinterpreted – as a source of new narratives regarding the location (*Centrum Zimbardo, Factory Full of Life*, *Crefad Loire*, *Stable Foundation*). Symbolic resources related to the physical location may be instrumentalised, if they are primarily used to acquire other resources, including material resources (*Porcelain Factory*) or a specific category of human resources (*TUBĀ Lyon*, *Locaux Motiv'*) – such as those found in the symbolic universe communicated via selecting a given location.

A physical location is a key proxemic resource of an innovation place, generating geographical (physical) proximity to its actors, which in turn creates conditions for the emergence of other types of closeness, without which social innovations could not arise. The specific location (building) significantly affects the type and frequency of social interactions,

which may then favour horizontal relationships and reduce hierarchical distance. Fertile ground for innovation places includes open concepts (*Stable Foundation, MediaLab*), post-factory halls (*Porcelain Factory, Zoomacom, Stable Foundation*), or former apartments or commercial premises (*Locaux Motiv', Crefad Loire, Centrum Zimbardo, Hackerspace Silesia*). The lack of walls in these spaces – or, on the contrary, a dense arrangement of rooms – promotes accidental interactions among residents, "brushing against each other", bumping into one another or eating meals together.

Finally, the building or space occupied by an innovation place is its vital pragmatic resource, which may be viewed from two perspectives. First, the physical location, together with its equipment, promotes the act of sharing both the space and the equipment in it, giving residents access to these resources at a cost lower than in individual activity. Second, having headquarters may be a source of income for an innovation place, guaranteeing in some cases its relative financial autonomy. The location may therefore be an important part of the economic model of an innovation place (*Centrum Zimbardo, Locaux Motiv', Crefad Loire*), one that is funding activities within its social mission, although in some cases the commercialisation of space may appear as a leading goal (*Porcelain Factory*). Physical headquarters may therefore be a financial burden or a difficulty in terms of institutionalisation, but at the same time they can be a key resource around which alternative methods of (co-)governance and financial autonomy are built, as exemplified by *Locaux Motiv'* in Lyon.

Taking into account the location of the innovation place on the city centre-city periphery continuum, a large number was located in the very centre (including places located in the centres of cities forming the GZM). Given the pressures of the real estate market, these were either places controlled by the local government (*TUBĀ Lyon*, *MediaLab*), or those for which the location was a significant pragmatic resource (*Locaux Motiv', Crefad Loire*). Other innovation places analysed here were located in the transition zone between the centre and peripheries of their respective metropolitan areas, sometimes in neighbourhoods with strong identity, which gives access to a variety of resources and allows residents to achieve interactive frequency, while reducing the pressure of the bearing the costs of renting the premises at the same time.

4.2. Formalisation level

When it comes to the formal status, most of the innovation places studied here were non-governmental organizations (foundations, associations), or other entities within the social economics sector (social enterprises), so: private entities geared towards achieving public objectives. The exceptions were those innovation places established as a result of an initiative of municipal authorities, so: in a formal sense, constituted an internal organisational cell of the municipality (*MediaLab*) or a municipal company (*Factory Full of Life*). Regardless of formal status, whether private or public, this standing did not determine the entirety of the place's institutionalisation and formalisation. *MediaLab* is an example of a *de facto* municipal entity, which is characterised by a relatively low level of formalisation in its functioning.

Therefore, the level of institutionalisation of innovation places relates not so much to the formal status of the organisation, but rather relies heavily on the level of formalisation, hierarchicity, and rigidity of the rules of functioning, as well as governing the relations of its members. The evaluation of this aspect adopted a continuum ranging from hierarchical management (denoted by a single +) to activity based on enclaves of ordered chaos (signified by three +++ marks), and between them lies the mix of both approaches (denoted by two ++). Most of those innovation places balance between those two logics and their corresponding realities, *i.e.*, institutional and formalised one or based on ordered chaos and freedom of creation. The proportions between these two dimensions determine the specific makeup of particular innovation places. The examples of places that attend to the freedom of its participants, which translates into dehierarchised relations of power and communication as well as changing and adaptive organisational geometry, include: *Hackerspace Silesia*, *Stable Foundation,* and *Locaux Motiv'*. In the case of *Locaux Motiv'*, a reflection of its de-hierarchised governance model may be found in the idea of "faire-ocratie" (in French: *faire – do*, *make*; in French: *democratie – democracy*). The term denoted a high level of power dispersion, combined with distribution of responsibility and the freedom to participate in the formation of common values and resources (commons) to the extent of limiting the risk of burnout. A stronger institutional or market orientation, weakening the processes of commoning and creative improvisation, are noticeable in *Porcelain Factory*, *TUBĀ Lyon*, and *Factory Full of Life*, where the management system is undoubtedly more classic and therefore centralised and vertical in character.

Next, the analytical focus was shifted towards the economic model of the highlighted places, assuming the criterion of whether the generated social values (+++), or the priority of monetising the results of their activity (+), are chiefly important for the place's functioning; the latter approach may promote financial autonomy and, in some cases, marginalisation or instrumentalisation of their social mission (Dohrmann et al., 2015). The possibility of a mixed model, combining both approaches (++), was also allowed.

The case of monetising priorities is exemplified by *Porcelain Factory,* where the commercial objectives of generating income by renting space and raising external funds appear to be at least as important as the revitalisation of the former factory and the generation of innovation, including social innovation. In other analysed cases, the social mission of the place and the creation of common goods through innovative solutions are prioritised. Nevertheless, they display different approaches to the idea of monetising parts of the generated resources, which translates into a varied level of material autonomy.

5. Meanings

As already noticed, one of the three elements that characterise the place are the meanings associated with it. Some of them, especially *genius loci*, are ready to be employed by the present users of the place; others are created or reinterpreted as a result of the actions of the place's residents. Looking at the relationship between the meanings and the actors within the place, it is possible to assume that *genius loci* radiate from place onto the individuals experiencing it, and in kind, the meaning that those individuals create radiates onto the place itself (Seamon,

2012). This second phenomenon is strongly associated with innovation places, which by default are designed to create new meanings, or to reinterpret those ready-to-be-used meanings as significant symbolic resources. Among them, some meanings refer to the normative conditions of relations between actors related to the place (as trust or responsibility). The analysis of innovation places, in line with the original assumptions, takes into account both the values related to the traditional concept of a place (*genius loci*) and those linked to activities of innovative character (Table 3).

Table 3. Assessment of features of the analysed innovation places related to their meanings (source: created by authors)

ANALYSED LOCATION/ DISTINGUISHING FEATURES	MEANINGS					
	Trust	Radius of trust	Responsibility	Responsiveness	Sustainability	Genius loci
Hackerspace Silesia	+++	++	++	++	0	0
Porcelain Factory	++	+	+	++	0	+++
Centrum Zimbardo	+++	++	+++	++	+	+++
Factory Full of Life	+++	+++	++	++	+++	+++
Stable Foundation	+++	+++	++	+	+	+++
MediaLab	+++	++	++	+	0	+
TUBĀ Lyon	++	++	++	++	+	+
Crefad Loire	+++	++	++	+++	++	++
Zoomacom	+++	+++	++	++	+	++
Locaux Motiv'	+++	++	+++	+	++	++

5.1. Trust and its range

The fundamental value for an innovation place is trust. It should be viewed as a constitutive element of an innovation place, which cannot exist without trust understood as the ability to cooperate in line with established rules of conduct, based on shared norms and values (see Fukuyama, 2000, 2003; Sztompka, 2015). For such places, co-operation is indispensable, and the results of actions always bear the risk of failure. Hence, only people who trust each other and build social capital based on a shared axionormative system are able to shape an innovation place. In most of the innovation places studied here, trust received a very high mark (+++). The exceptions were two places (*Porcelain Factory, TUBĀ Lyon*), which were still rated at a high level (++). Such an assessment is conditioned by the nature of the activities carried out at those places: as they are commercial, the ties between the actors are more often than elsewhere based on market principles. This is not mean that trust is neither present nor useful there (it allows, for example, residents to reduce transaction costs), but its level is still lower than in the rest of the surveyed places, and trust levels are conditioned rather pragmatically.

    Just as the functioning of actors inside an innovation place is impossible without mutual trust, the transfer of innovation, forwarding the developed solutions and simply sharing ideas is hindered in situations where trust is lacking in relations with external actors. In this case,

the radius of trust (Fukuyama, 2000, 2003; Delhey et al., 2011) becomes relevant. It should be emphasised that physical distance for innovation places is less crucial than its symbolic distance, relating to the differentiation of actors with whom individual innovation places maintain relationships. A heterogeneous network of trust-based relationships makes it possible to obtain resources unavailable in small-scale networks (see Burt, 1992; Lin, 2000). When assessing the length of the radius of trusting relationships, the authors adopted a criterion of actor diversity. Among the innovation places studies here, there are those that prioritise their cooperation with different types of actors on trust (+++) (*e.g.*, *Factory Full of Life*, *Stable Foundation*, *TUBĀ Lyon*), and those that focus more on cooperating with entities from the same area of activity (*e.g.*, *Hackerspace Silesia*). In the first situation, it is possible to conduct various activities and increase the chances of knowledge transfer, and of possible innovations. The second case boosts the importance of bonding social capital (Putnam, 2008, pp. 40–41). In the context of the radius of trust, one notable type of relationship combines innovation places with public authorities. A high level of trust is also conducive to positive relations with local government (*TUBĀ Lyon*, *Factory Full of Life*), while decreased trust may lead to neutral relationships (*Hackerspace Silesia*) or problematic ones, especially when activities conducted at an innovation place are an alternative to the official municipal policy. Sometimes, precursor activities of innovation places prove successful, and are subsequently taken over by municipal institutions, while the grassroots actors who initiated them are marginalised. Such a situation occurred in one of the investigated cases (*Crefad Loire*) and undermined the trust residents placed in the local authorities.

5.2. Responsibility

Another important value for innovation places is responsibility, defined as bearing the consequences for the undertaken actions (see Welzer, 2016) and a propensity for "discerning problems and issues that require response and action" (Bogunia-Borowska, 2021, p. 10). The goal of responsible leaders is to create a culture of responsibility, whereas the opposite is a culture of irresponsibility related to indifference, avoidance, and passivity (Bogunia-Borowska, 2021). In the context of innovation places, responsibility must be seen both in connection with the place itself as well as with its spatial and social environment, including fellow residents. Being responsible for a place is obvious, although the way in which actors carry out their responsibility depends on the degree of formalisation and institutionalisation. For example, at the places with a low degree of formalisation, the actors themselves are engaged in activities related to the place's maintenance (*Hackerspace Silesia*, *Locaux Motiv'*), which is not adopted at institutionalised places (*e.g.*, *Factory Full of Life*, *Porcelain Factory*). The issue of taking responsibility for the wider environment of the innovation place is a bit more complex. It may take two forms. The first is focused on the local sphere and may refer to, for example, supporting vulnerable groups (*Centrum Zimbardo*, *Stable Foundation*) or the concern for common space (*Crefad Loire*). The second may assume a global dimension, *e.g.*, sustainable energy management (*Zoomacom*) or open data projects (*MediaLab*). However, it must be noted that activities relating to global problems are carried out by the analysed innovation places primarily on a local scale. Regardless of the scale of operation, the responsibility

of innovation places for their surroundings is high. It was assessed slightly lower (+) only for *Porcelain Factory*, as its activities are mainly focused on preserving the post-industrial heritage of that entity's location. These are important activities, but they affect the external environment to a lesser extent.

5.3. Responsiveness

A value seen as related to responsibility is responsiveness. It is a concept used in many sciences, from psychology and management to computer science (see Herbst, 2008). Generally speaking, and for the purposes of this analysis, responsiveness may be understood as the ability to react to incoming signals that move from the external environment to an innovation place. This requires predicting the development of the situation, the effects of the undertaken actions, and simultaneously being flexible in reacting to the problems that arise. In such a way, responsiveness is present in all innovation places mentioned, albeit at different levels. *Crefad Loire* rated the highest (+++) for responsiveness, as their actions within the district (*e.g.*, adapting vacant buildings) were preceded by researching the needs of the local community and the potential of the given location. In other cases, responsiveness was not as high, although several places clearly emphasised their willingness to implement the ideas of people coming to their seat (*Hackerspace Silesia*), to take action in response to the signalled needs of residents (*Centrum Zimbardo*), or of local government organisations and companies (*TUBĂ Lyon*, *Porcelain Factory*).

5.4. Sustainability

According to the assumptions, innovation places should relate in their activities to the values associated with sustainable development. It would be difficult to discuss modern innovation without taking into account the values pertaining to it. Due to the complex nature of sustainability, this research assumed that innovation places referenced the 17 sustainable development goals set by *The 2030 Agenda for Sustainable Development* (United Nations, 2015). A scale with references to *The 2030 Agenda for Sustainable Development* was adopted in the evaluation of this dimension: from very strongly highlighted, direct references (+++), through more moderate (++) and lower-level (+) references, and finally to the absence of such references (0). Innovation places relate to the values associated with sustainable development in a varied manner. Because of their action profile, references to the social goals of sustainable development such as: counteracting social exclusion, supporting equality, and resource sharing were found more often in some places, such as *Centrum Zimbardo, Stable Foundation*, and *Crefad Loire*. More moderate statements regarding the values associated with energy conservation and rational consumption were found at *Zoomacom, Locaux Motiv'*. While several places did not directly reference sustainable development values, they still accentuated the importance of 1) open data (*MediaLab*, *Hackerspace Silesia*), and 2) the importance of cultural heritage (*Porcelain Factory*), both of which may be considered as values complementary to those pointing directly to the goals of sustainable development. The values most strongly associated with the goals of sustainable development were present in the *Factory Full of Life*. Still, many of the ideas they presented are still in the design stage: *e.g.*, the

introduction of ecological solutions (sponge city, green roofs, and closed water circuits). However, the values of sustainability are strongly communicated and treated as an essential element of *Factory Full of Life's* project: shaping the urban centre in a post-industrial space, which is the main objective of the municipal company. In general, it should be emphasised that innovation places are predestined to refer in their actions to values associated with sustainable development. It is already happening in many cases, and most of the places analysed here see the idea of sustainable modernity as similar to sustainable development. This concept assumes the paramount importance of "long-term orientation instead of short-term, common goods instead of own benefits, prosperity of time instead of possession, maintenance instead of destruction, freedom instead of consumption" (Welzer, 2016, p. 294).

5.5. *Genius loci*

The last variable from the meanings category included in the model of an innovation place is its *genius loci*, which is understood as a collection of unique features relating to the location of a particular place (especially associated with architecture) (Norberg-Schulz, 1979; Lenartowicz, 1992). *Genius loci* does not need to be a key element of an innovation place, but it may attract people to it, affect its functioning, and focus activities undertaken on site. Among the analysed locations, some clearly emphasised the cultural meanings associated with the buildings they occupy, their history, or their existing narratives. The activities undertaken in these places are also related to discovering, sometimes reinterpreting and publishing, the values associated with the place, which strengthens *genius loci* (*Stable Foundation, Factory Full of Life*, *Crefad Loire*). In several other cases, the actions of residents exploit location-related meanings (*Locaux Motiv', Centrum Zimbardo*). Sometimes, the meanings associated with the place are introduced into the circulation of symbolic economics (Zukin, 1996; Błaszczyk, 2013; Rewers, 2019) and serve as a component of place-related marketing (*Porcelain Factory, TUBĀ Lyon*). After all, some places, particularly those associated with activities focused on the technology and information technology, refer to the *genius loci* associated with their location not at all (*e.g.*, *Hackerspace Silesia*) or only to a small extent (*MediaLab, Zoomacom*). It may therefore be noticed that those innovation places established on the basis of resources related to specific locations use the unique quality of space and its history in a creative manner (more often) or in an instrumental way (less frequently), by co-creating or using the meanings associated with them. *The genius loci* may, as a result, become an inspiration for activities that are often conversely aimed at strengthening it – participating in an innovative "game with *genius loci*".

6. Action

Finally, an innovation place is defined by referring to the actions undertaken in its name. The location, along with accompanying meanings, create specific conditions for creativity and experimentation that result from a sense of closeness, safety, and of being at home. It becomes a place filled with meanings and values relating to the past and the future of local and global provenance, becomes matter shaped by the work of actors whose diversity triggers new connections, hybridising and synthesising new values and activities. The emergence of

innovation is not automatic, but it is possible to distinguish specific properties of undertaken actions that foster innovation. In order to avoid remaining closed enclaves within separate worlds or heterotopies (Foucault, 1984), innovation places and their collectives must be open to diverse social actors and work in cooperation with a wide range of entities, from international to local levels, including participating in a dialogue with local government, which is necessary to innovate within the city and the metropolis. This social diversity among active participants of the innovation, and the wide reach of their networking, may promote high interactional density, creating qualitatively new connections and relationships that may, but do not have to, result in creative activities with innovative potential (Table 4).

Table 4. Assessment of features of the analysed innovation places related to their activities (source: created by authors)

ANALYSED LOCATION/ DISTINGUISHING FEATURES	ACTION			
	Openness and diversity	Range of cooperation and networks	Multiplication and conversion of interactive systems	Emergence of new values, ideas, solutions (innovations)
Hackerspace Silesia	+++	+++	+++	++
Porcelain Factory	+	++	+	+
Centrum Zimbardo	+++	+++	+++	+++
Factory Full of Life	+++	++	++	+++
Stable Foundation	+++	+++	+++	+++
MediaLab	++	++	++	++
TUBĀ Lyon	++	++	+	+
Crefad Loire	++	++	+++	+++
Zoomacom	++	++	++	++
Locaux Motiv'	+++	+	+++	+++

6.1. Openness and diversity

From a formal perspective, all places were open in nature. Therefore, we have combined the variable of openness with the variable of social differentiation of an innovation place, which demonstrates not necessarily its formal, but rather actual openness to diverse social actors. None of the analysed places were closed (value 0), which would indicate that the formal exclusion of certain categories of persons from participating in activities carried out at the site or within its initiatives. We assigned the highest value of the "openness and diversity" variable (+++) to places where highly diverse groups of actors were actually included in the activities, from people marginalised for various reasons to people holding high social positions. This category encompasses places such as *Hackerspace Silesia*, *Centrum Zimbardo, Factory Full of Life, Stable Foundation*, and *Locaux Motiv'*. These places are characterised by unimpeded openness for all persons interested in membership, participation in activities, organisation and co-organisation of specific ventures and the possibility of using available equipment (*e.g.*, 3D printers, computers, *etc.*). However, it should be emphasised that is it

another instance where their openness, measured by social diversity, was not absolute in nature but assumed the highest values among the surveyed places. The category of moderately open places (++) includes those that, although they are formally open, have had specific filters that make certain categories of actors feel more at home and more likely to be involved in the actions taking place. Such a natural filter may be the profile of activity, *e.g.*, in the case of *MediaLab* or *Zoomacom* having a minimum competence in information technology or design. Lowered diversity of actors present at the place may be a result of the location, the attitude towards working within one district subjected to the intervention (*Crefad Loire*), or the fact of being situated within the main business district and having certain aesthetics of the place, one which may prove more successful in attracting actors of a specific status (*TUBĀ Lyon*). In some cases, the accumulation of filters combined with the economic barrier associated with, *e.g.*, the cost of renting the space, may determine the small openness of a place (+), which translates into limited social diversity of actors functioning within it (*Porcelain Factory*)[5].

6.2. Range of cooperation and networks

The differentiator of innovation places is their network cooperation. It means that, in addition to physical location, they represent moments in the social networks of actors (Massey, 1991, 2005) who are found in this place or are involved in the activities of those places also outside their premises. This trait of the place is boosted by its location in the metropolitan area, which makes it possible to participate in the global flows. Network-related connections supply a given innovation place with ideas, knowledge and concepts brought by actors moving through the space rich in flows of diverse resources that inspire creative and innovative activities. Cross-linked cooperation between the actors of an innovation place also facilities the diffusion of the results of its activity. The variable of networking was ranked on a scale of four values, referring to its geographical range, ranging from places with international (global) links (scored with three +++), to situations where relations and cooperation are developed exclusively on the tangible plane of the location, and within a strict group of its members (scored by a 0). The latter was not identified in any of the analysed places, as they all maintained cooperation in external partners, at least within their metropolitan areas. The places that most drew on resources generated by the network and partnerships on an international scale include: *Hackerspace Silesia*, which works in cooperation with similar organisations in Europe; *Stable Foundation*, which implements a number of projects with foreign partners, including the project *Co-Design Your Place*; and *Centrum Zimbardo*, whose programme is the result of the cooperation with the world-renowned researcher Philip Zimbardo, who participated the project's inauguration. Other locations maintained cooperation with diverse entities and individuals, at least on a nationwide (++) level. Within this group, it is possible to distinguish between entities whose activities are based on direct cooperation with local government (including *Factory*

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[5] While the text was being finalised, the Russo-Ukrainian War broke out. This led to an influx of refugees into Poland and the need to find them some place to stay. *Porcelain Factory* also participated in this mobilisation and invited 50 people to its buildings. This fact may serve as evidence of its openness and responsiveness being higher than diagnosed during the analysis.

Full of Life, *MediaLab*, *TUBĀ Lyon*), and those cooperating with various units and entities at different organisational levels (such as *Crefad Loire*, *Zoomacom*), fitting within their respective mission statements. *Porcelain Factory* is an example of yet another category of a place open to all cooperation. In this case, however, the cooperation needs to contribute to the commercial success of the place, including the desired publicity and acquisition of more customers/tenants. The exception to these general findings (*i.e.*, the only place rated with +) was *Locaux Motiv'*, which focused on intensive networking mainly at local and regional levels. *Locaux Motiv'* members have created a regional cooperative network of social economics actors (LyESS), including other network initiatives (*Coworking du Grand Lyon*) whose reach does not extend beyond the metropolitan area and its region.

6.3. Multiplication and conversion of interaction systems

Changing the potential for generating and converting interaction systems refers to the co-occurrence of actors in and around the innovation place (geographical proximity), which translates into building qualitatively new relationships, links, and group structures. Such systems are a consequence of the emerging closeness of the actors within cognitive, organisational, and social dimensions (Shearmur, 2010). The initial, frequently random interdependence of actors sharing a common space (systems of interdependence) may generate both collisions and the phenomenon of boosted activity. Nevertheless, the innovation place should also harness the potential to transform accidental interdependencies of actors into functional systems, making their activities complementary, which may lead to synergy, hybridisation and emergence of new ideas (Boudon, 1981). The authors assumed that the variable of multiplication and conversion of interaction systems could have three possible values. The highest value (+++) denotes deep transformations of interaction systems, while the lowest value (+) indicates that the space is shared by actors keeping each other at bay, and focusing on individual activities and their own projects. The possibility of an intermediate situation (++) between the two states was also allowed. The places with the highest interaction conversion rate were *Hackerspace Silesia*, *Centrum Zimbardo, Stable Foundation,* and *Locaux Motiv'*. *Hackerspace Silesia* does not have a rigid organisational structure, and its activities are spontaneous and not formalised, which promotes the creation of completely new interaction configurations based on commitment and trust. Both *Stable Foundation* and *Centrum Zimbardo* work to reconfigure the relationship between residents and their attitude to their neighbourhoods. *Locaux Motiv'* used their *faire-ocratie* (in French: *cratie – power*) to create a novel model of co-management of the place, with the most important consequence being the generation of dense interactions, in diverse configurations. Lower potential for reconfiguring social relationships was noted in such places as *Factory Full of Life*, *MediaLab*, and *Zoomacom*, which may be caused by their deeper institutionalisation and stronger links with local governments. While both *TUBĀ Lyon* and *Porcelain Factory* favour networking, they are, first and foremost, places for developing individual projects, which are often purely commercial. They are places where joint activities and animation are marginal, but may, as in the case of *Porcelain Factory,* head towards joint marketing activities actually designed to support individual projects. Therefore, a low level of interactional conversion was established in these two cases.

6.4. Emergence of new values, ideas and solutions (innovations)

The culmination of actions taken in innovation places should be manifested in new values, ideas, activities, and ways of doing, some of which may become social innovation (Mulgan et al., 2006). Creativity was considered to be the result of reconfiguring interactional systems under the conditions of social, cultural, and economic diversity of actors (Liefooghe, 2010), whose cooperation may trigger the emergence (Morin, 2014) of new practices and solutions that are not merely sums of resources and input practices. The variable "emergence of creativity and innovation" makes it possible to determine whether "urban commons" are generated in the analysed place. They may have both tangible (new spaces, objects, devices) and intangible forms (social capital, new narratives, new identity) and constitute potential social innovations. The analysed places were distinguished on a scale ranging from a high degree of innovation (+++), through a moderate degree of innovation (++), to a smaller degree of innovation (+), and finally, a lack of innovation (0). According to this criteria, the greatest potential for creating "urban commons" occurs when both the generation process and the commons themselves become social innovations, a scenario which was found in the case of projects enabling broadly defined revitalisation; this further allowed for changes in physical space, as well as for the creation of new narratives and identities for the places. Although new narratives do not have to be innovations themselves, the way they are produced may be innovative. It should be remembered that new narratives change the subjective perception of place, and may trigger both subjective and objective upgrades in the quality of life. The places where such practices were observed were, among others, *Centrum Zimbardo, Stable Foundation, Crefad Loire*, and *Factory Full of Life*. In the last case, the uncommonly broad – that is, innovative – nature of participatory activities, and the diverse actors, generated new collective performances, narratives, and identity. Similar effects were achieved by *Stable Foundation*, in the context of changing the perception of a ruined palace complex in Siemianowice Śląskie, Poland. Likewise beneficial was the new narrative of *Centrum Zimbardo*, one of the entities "lifting the curse" of Nikiszowiec – the degraded working-class district of Katowice. In the case of these entities, the change of the narrative was accompanied by offering the residents a new range of services and activities that expanded opportunities for satisfying their needs, and often by solving social problems, which are actually key definitive elements of social innovation (see Bukowski et al., 2012; Wronka-Pośpiech, 2015; Krlev et al., 2018, pp. 17–19). A high potential for generating social innovation was also determined for *Locaux Motiv'*, stemming from its organisational innovation in the form of a developed and collectively practiced new model of a place, one seen as a common good, a hybrid third place, which has achieved financial autonomy while maintaining its original mission. *Hackerspace Silesia*, *MediaLab*, *Zoomacom* were assigned to the category of places with a moderate level of innovation. This result is associated with a lower level of commoning, and a diffusion of generated solutions, which may actually be the results of individual projects of actors operating within an innovation place. In the case of *Hackerspace Silesia*, solutions or prototypes are not developed more widely, and there are no attempts to implement them further, as the process of creating them, accompanied by knowledge-sharing and by enhancing the competence of actors involved in the project, is more important. From this perspective, it was assumed that the lowest potential in terms of generating social innovation was held by *TUBĀ Lyon* and *Porcelain Factory*. Although innovation formation is not out of the question in either
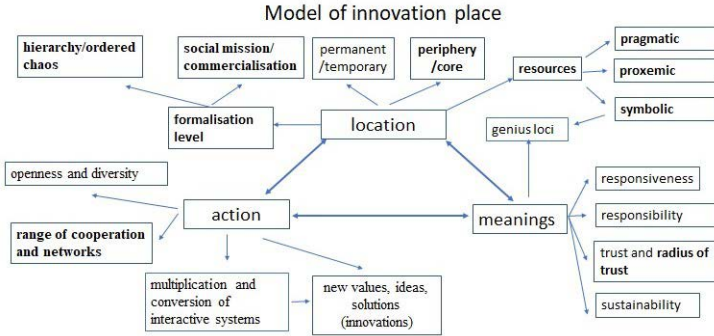
Model of innovation place

Figure 2. Model of the innovation place (features added in the course of
the research are in bold font) (source: created by authors)

location, they are rather the products of individual actors and entities, who in most cases only share the premises with others.

As a result of the research carried out, the innovation place model was expanded to cover several categories not included beforehand (Bierwiaczonek et al., 2020) (the Figure 2 shows them in bold font).

As proven in the research and analysis presented in this article, the resources related to location are important for the functioning of innovation places. Depending on the nature of the location, its symbolic, proxemic and pragmatic resources may be mobilised in various ways. A crucial feature of innovation places, regardless of their legal status, is the level of formalisation of internal relations and the inescapable balancing between a hierarchy that stimulates operation and an organized chaos that favours creativity. The nature of the location, mobilised resources, level of formalisation and centre/periphery location affect the economic model where the pragmatic aspects and social mission intermix in various proportions. Moreover, the meaning of the scope of cooperation with external bodies and the related (although belonging to the aspects related to meanings) trust radius were also pointed out. Trust within the place is essential to trigger experimentation and hybridisation of solutions, while trust in external relations makes it possible to include external resources as well as promote the developed solutions. The diffusion of urban innovations requires the cooperation with, among others, local authorities; otherwise, the innovation places may remain the enclaves of various worlds separated from their environment.

Conclusions

The main objective of this study was to present the opportunities the developed model of an innovative place offers as a tool for identifying and analysing social innovation in metropolises. This objective was met, and the analyses presented here showed that the model's characteristics make it possible to effectively analyse the process of forming innovations, indicate its determinants, and reveal differences between the innovation places. The model of an innovation place makes it possible, first of all, to identify bottom-up places, functioning outside the official registers, where social innovation is developed. These spaces move beyond

the concept of grape clusters, and of innovation districts or coworking, on which previous analyses have focused (Porter & Stern, 2001; Nathan et al., 2012; Drucker et al., 2019; Smętkowski et al., 2019; Gądecki et al., 2020).

The proposed research procedure also allows the authors to draw conclusions showing that not all selected places may be called innovative, at least in the context of creating social innovation. This refers to *Porcelain Factory*, whose functioning fits into an important and crucial process of revitalising post-industrial space, and of creating a location for the industry of culture. However, these activities are ascribed to the capital-centered model of developing metropolitan spaces, where social innovation is not actually present. As for the other analysed places, social innovation was noticed regardless of whether they were closer to solutions related to digital technologies (*e.g.*, open data), and regardless of the empowerment of local communities (*e.g.*, supporting marginalised groups).

From the viewpoint of empirical analysis, it is difficult to say to what extent the activity observed at a given place is a completely new solution, and how much it is a repetition of actions or solutions that have proven themselves in other places. The authors assume that innovation does not have to be a fully novel activity, but should be an alternative to the currently implemented solutions, even if it means a kind of a return to the roots and solutions utilised at earlier stages, or that would be applied under completely new conditions (Djellal & Gallouj, 2012, p. 39). Therefore, it was acknowledged that the actions being introduced as new in a particular place are in fact innovative, and have the potential of triggering a positive change, at least locally.

The present study also demonstrates that a qualitative approach is effective in empirical analyses of social innovation. Researchers analysing Polish innovation districts arrived at a similar conclusion (see Gądecki et al., 2020). Discussions with social actors tied with innovation places, and observations of the activities in those places, allow us to capture the logic of the process of the innovative activities carried out there, and to effectively analyse their determinants. Qualitative research has limitations, especially when it comes to generalising the obtained results. Another issue is the choice of places to be analysed, which, especially in research of a relatively small scale (like the one described in the article), is a conscious selection. It is methodologically justified, although it may raise some doubts as to the subjectivity of the choices. Therefore, it is important to apply specific criterion or criteria when choosing those places (in the analysed cases, it was the diversity of analysed places, the manner of their establishment and location within the metropolis). A challenge for the researcher lies also in the dynamic changes occurring in modern cities that is related to the need to respond to various crisis situations. Such a changeability may pose an issue during research, but it also shows the role of responsiveness of innovation places in a swift reaction to urban crises.

The present study is preliminary in nature. It is not sufficient to warrant the use of the model of the innovation place to create a typology of such places. However, it seems that the application of this model in broad-scale studies would allow for such a typology to be created.

Undoubtedly, the innovation places analysed in the study, especially those arising from the bottom-up process, showed that modern metropolises, or at least the metropolises of Lyon, Saint-Étienne, and GZM, have social resources operating in a new manner for cities, a manner that accentuates the joint actions of residents, taking care of the common good, and looking for new – and innovative – solutions to urban problems.

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