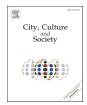
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Locality selection matters. Investigating creative hubs in the Czech urban environment

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ABSTRACT

The paper aims to identify and analyze the factors influencing the selection of sites and buildings for the placement of creative hubs in the urban environment of the Czech Republic, where cultural and creative industries have been mapped (model cities Prague, Brno, Ostrava, Pilsen, Olomouc, and Zlín). Methodologically, the text is anchored both in the theoretical discussion of the concept of creative hubs and especially in qualitative research in the form of a questionnaire survey, semi-structured interviews with creative hub management, and on-site observation. Our research results have confirmed the experience of advanced economies (such as Germany or Austria) that creative hubs are naturally located in large cities, where sufficient economic and sociocultural potential is also expected. However, even in smaller cities, increasing digitalization and technological advances are increasing the pressure to fill the "gap" in the creative economy. Regardless of the basic type of creative hub (creative space, co-working, maker space), the key factors affecting site selection are financial and investment costs, i.e. primarily acquisition costs, rental price and operating costs related to the city centre or off-centre location. Other strong factors are technical and transport infrastructure, a competitive environment, the concentration of potential customers and social infrastructure (especially a young and well-educated workforce). Last but not least, the wear and tear of the interior and exterior of the building and the social status of not only the surrounding area but also the city district appear to be an important element.

1. Introduction

In the academic debate on urban competitiveness, it has become fashionable to emphasize the growing importance of culture and creativity for economic development (Peck, 2005; Evans, 2009; Landry, 2012; British Council, 2014a). Every city in the developed democratic world seems to favor the term 'creative city' and seeks to create a set of conditions for the development of cultural and creative industries, investing in universities and research institutes, networking and lobbying institutions and promoting start-ups (Sedini et al., 2013; Virani and Malem, 2015; Gill et al., 2019). A large number of leaders at local levels believe that the main thing to do is to become a more attractive place for the creative class (Dovey et al., 2016; Florida, 2002; Kloudová, 2010; Landry, 2012) (see Figs. 1–7)

The impact of culture on the development of urban competitiveness has been extensively investigated by researchers (Scott, 2006; Currid, 2007; Bontje & aMusterd, 2009; Virani and Malem, 2015), but the impact of creative hubs on developed cities, the question of the location

of creative hubs and the identification of factors influencing the choice of location and specific building for the location of creative hubs has not yet been sufficiently addressed.

The authors of the present article believe that one of the roles of cities should be to create appropriate conditions for the development of environments in which creative potential will further develop and thus contribute to the development of the territory, whether in the form of attracting a creative class or creating new jobs. Given the scope of the issue, attention is focused on the concept of creative hubs, which is an idea associated with concepts such as the creative city, creative economy or cultural and creative industries (Hall, 2000; Pratt, 2008; Levickaite, 2011)

The paper aims to identify, analyze and discuss factors influencing the selection of sites and buildings for the placement of creative hubs in selected cities in the Czech Republic (Prague, Brno, Ostrava, Pilsen, Olomouc, Zlín). These cities were selected on the basis of the results of mapping surveys of cultural and creative industries. In each of the above cities, the current situation, needs and trends were analyzed. The main

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results from all cities analyzed were summarized in the publications of Piorecký et al. (2018), Palaščák et al. (2017), Žáková et al. (2016, 2015), Slach et al. (2013) or Němec (2013). Based on this mapping research, these cities can be considered creative, as support tools for the development of the creative environment have been created in them in response to the mapping research carried out. In response to these mapping surveys, a methodology was developed that describes the importance of cultural and creative industries, their definition and the mapping process (Bednář et al., 2016).

In the context of the objective presented, the following key research questions were identified:

RQ1. Is the concentration of creative hubs in the Czech Republic primarily dependent on the population size of the city and its economic strength and socio-cultural potential?

RQ2. What are the most important conditions and factors affecting management when choosing a location for a creative hub?

RQ3. What are the most important factors influencing management when selecting a building for placement of a creative hub?

2. Theoretical background

Over the past decade, the term 'hub' has emerged in various sectors and organizations as a new alternative way of organizing work. The hub has become a pervasive idea implying a combination of dynamically diverse talents, disciplines, and skills to boost innovation (Dovey et al., 2016). The term hub has been commonly used for many years, but creative hubs are a relatively new phenomenon, especially in the environment of the Czech Republic (Kloudová, 2009; Cikánek, 2013, Slach et al., 2013; Žáková et al., 2016; Chaloupková et al., 2018; Konečný et al., 2021). The scientific literature on creative hubs is therefore still relatively rare, although the term is increasingly used both in academia and in political circles. The term creative hub has no commonly used or generally valid definition and has been criticized countless times for ambiguity and all-inclusiveness (City Fringe Partnership, 2005 2015; Evans, 2009; Foord, 2009; Cunningham Stuart, 2012).

The first attempt to define the concept was made in 2003 in a policy document by the London Development Agency (LDA, 2003) describing activities taking place in the creative economy. Since the first attempt to define the concept, two directions have been developed. The first direction considers creative hubs to be synonymous with creative clusters, and focuses on their localization, organizational and geographical characteristics (London Development Agency, 2003; Oakley, 2004; Bagwell, 2008; Evans, 2009). The urban theorist Richard Florida (2002) can be considered the most prolific author in the field of creativity; he claims that cities are becoming creative hubs thanks to their ability to attract a creative class consisting of people creating added economic value through their creativity. Florida's definition of the creative class is the starting point for the typology of users who seek to attract the creative hubs involved in our own research. The theory of Florida is

followed by Scott (2006), who adds that the existence and implementation of city policies that help create these creative spaces is marginal. In the case of the Czech Republic, it confirm authors such as Kraus and Žáková (2014), Adamcová et al. (2016), Hollan et al. (2017), Jaňurová et al. (2020)or strategic documents of the Ministry of Culture of the Czech Republic (2015, 2019), the Institute of Arts and Theater Institute (2012) or the Cultural Parliament of Brno (2019).

An important document at the national level of the Czech Republic dealing with the issues of cultural and creative industries (CCI) is the "Concept of art support in the Czech Republic for the years 2015-2020" (Ministry of Culture of the Cunningham Stuart, 2012). Two important projects were implemented, serving as a source of information. The first project, "Socio-economic potential of cultural and creative industries in the Czech Republic (2007-2013)", analyzed the use of the CCI's potential for the social and economic development of the Czech Republic, included definitions following the British definition, proposed indicators for assessing the socio-economic potential and mapped individual areas of the CCI. The output of the project was a draft recommendation for cultural policy (Institute of Arts and Theater Institute, 2012). The second project, "Mapping of cultural and creative industries in the Czech Republic (2011–2015)", emphasized the importance and impact of the CCI on the state economy. In the Czech environment, the study addressed the issue of obtaining and processing statistical data and expenditure on research in the CCI (Žáková et al., 2015). It also included studies describing recent developments and the current situation in individual sectors of creativity in terms of process settings, functioning, financing and efficiency (Žáková et al., 2016).

Countries that have more experience with CCI support (eg the United Kingdom, Germany, Austria, Estonia) have significantly more documents and data, than countries where the CCI concept is new usually lack relevant data (especially in regional and local level). The Czech Republic, like other Central European countries, is just discovering the potential of the CCI. For the time being, it is focusing support on traditional areas (cultural heritage, art education, public services or tourism). The main differences between the Czech Republic and other countries result from the analysis of documents at the national level and from its own research (eg interviews). In addition to a lack of relevant data, a common problem for countries is ignorance of the environment, differing terminology, lack of monitoring of specific data, noncoordination of a given country with other countries, or failure to use good practice examples. However, the methodology for monitoring economic data is constantly being formed and developed even in more developed countries.

Mapping also took place at the regional and local level. The study "Spatial Dimension of Creative Industries in the Czech Republic" deals with the spatial distribution of creative industries. According to assumptions and experiences from advanced economies, the study showed that CCI are most concentrated in large cities, dominated by Prague, Brno and Ostrava (Slach et al., 2013). Although the Czech Republic is approaching the methodology of the pioneer, Great Britain, the



Fig. 1. The main differences between the Czech Republic and foreign countries' Source: own survey (2018–2019).

processing and interpretation of data and information are still imperfect and their correct use and comparison are limited.

The second line of thinking understands creative hubs differently from geographic clusters (ie clusters, neighborhoods, or zones) and focuses on what creative hubs do internally, that is what services they provide. Most experts consider their spatial organization as secondary to their infrastructure and operational contribution (Sedini et al., 2013; British Council, 2014a; Virani and Malem, 2015).

Creative hubs come in many shapes and sizes, ranging from buildings where creatives and businesses are located to temporary laboratories and incubation areas that stimulate innovation, as well as online networks that connect people through an annual program of events. Each creative hub is unique because it is determined by geographical location, cultural context, community requirements and unique funding model (Sedini et al., 2013; Virani and Malem, 2015; Dovey et al., 2016).

The British Cunningham Stuart (2012) defined a creative hub as "a physical or virtual place that brings together enterprising people working in creative and cultural industries." Creative hub is leasable space for networking, organizational and business development within cultural and creative industries. In the same spirit, Sedini et al. (2013) identified six components that are usually involved in creating creative hubs (incubators, service centers for companies, virtual platforms, development agencies, collaborating centers, and clusters).

Given these two ways of thinking about the concept of creative hubs, Virani and Malem (2015) propose that the newer definition of hubs be seen as a combination of physical and virtual spaces that provide and facilitate important business support activities and processes, such as networking, opportunities for research and cooperation. Importantly, these activities and processes can be seen as creative services that enable knowledge exchange and opportunities for growth and sustainability development (Gill & Pratt, 2008; Gill et al., 2019).

The authors of the British report on creative hubs distinguish six forms of a creative hub (see table below), arguing that the main message is not to provide an exhaustive overview of typology but to point out the extent of the diversity and specialization of creative hubs. The authors also argue that to achieve positive effects on the development of the city, policy and practice must begin with this perspective, not with a generalized or idealized hub (Dovey et al., 2016).

The research conducted (see below) is also based on the British Council (2014a) typology, whereby the creative hubs of the Czech Republic were divided into three categories: i) creative spaces, ii) coworking spaces and iii) maker spaces. These three types of creative hubs are the most widespread in Europe. Creative spaces are spaces that form an independent artistic and cultural scene. They are usually initiated and managed by individual and collective art initiatives, taking up different forms of space to provide physical space for the production, display or storage of works of art, while building community values. The initial goal of creative spaces was to provide space for community purposes. The central idea is that the creative space is heavily rooted in its community and rarely supported by a solid business model.

Using the synthesis and generalization of knowledge from the

authors' own research, a typical Czech profile of creative space can be considered an organization based on the principle of individual or collective artistic initiative with a small number of team members (average 1 director and 5 employees) and a medium number of members (30–80). It mainly offers annual membership (average price 1500–3500 CZK/month), a number of regular courses for hub members (average price between 500 and 1500 CZK), and one-time workshop for the public (average price per workshop 150–850 CZK), focused mainly on artistic creation connected with fine, theatrical or musical art. These take place predominantly in the premises of the hub, which are functionally divided most often into 3 zones (only for artists, for the public and for meetings, e.g. cafe) and which can be rented for a discounted price, e.g. for schools or non-profit organizations (price between 1500 and 3500 CZK/day).

Coworking spaces differ from creative spaces in their function. They not only provide the physical space in which individuals can work, but are also a fusion of communities and individuals seeking collaboration and co-production. In the context of the Czech Republic, they considerably extend the manner of cooperation and the nature of communities into a more formal and visible public sphere. The problem now lies in a shift in the perception of coworking, which is currently described as a purely private economic or commercial interest, as creative coworking spaces build on community cooperation and ideas in the public sphere.

Based on our own research, a typical Czech profile of a coworking space can be considered an organization founded on the initiative of a small group looking for space for cooperation, with a medium number of team members (average 1 director and 10 employees) and between 50 and 250 number of members. It mostly offers annual membership (average price 2500–5500 CZK/month) and a number of regular courses for hub members (average price between 500 and 1500 CZK) and one-time courses for the public (average price for a shop 100–800 CZK). These are focused mainly on creative work connected with modern technologies, innovations and entrepreneurship, taking place for the most part in the hub, which is functionally divided most often into 5 zones (members only, shared space for members and the public, meeting rooms, cafe/kitchen, garden), and can be rented at a discounted price, e. g. to creative entrepreneurs or start-ups (price between 2000 and 4000 CZK/day).

The third type of creative hub found in the Czech Republic is maker spaces, which share the same basic characteristics of coworking spaces as they provide space for public cooperation and co-creation. The main difference is that manufacturers use specific tools and equipment (e.g. 3D printers, cutting machines, etc.) to work and are not usually as profitoriented.

According to knowledge from the authors' own research, a typical Czech profile of maker space can be considered an organization founded by an enthusiast or a small group of enthusiasts with a small number of team members (average 1 director and 5 employees) and a number of hub members (10–50). It offers several member tariffs (average 3), which take into account the number of hours spent in the workshop (from 1 h to 24 h/day), the skill and needs of the macro (average price

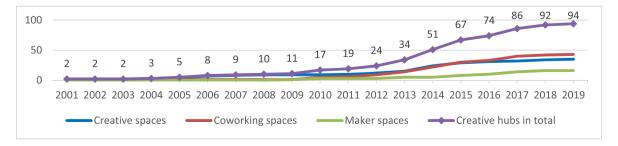


Fig. 2. Development of the number of creative hubs in selected cities of the Czech Republic (Prague, Brno, Olomouc, Plzeň, Ostrava, Zlin) in the period 2001-2019 Source: own survey (2018–2019).

500–3000 CZK/month), and student status (price is usually between 250 and 500 CZK). There are a number of regular courses for members of the hub (price on average between 500 and 2000 CZK) and one-off workshops for the public (price for a workshop on average 350–1000 CZK) focused mainly on artistic creation connected with modern technologies that are part of shared workshop equipment. Said equipment can also be rented outside the hub for a fee (200–1000 CZK/day), which are functionally divided most often into dirty and clean areas or separated according to function, and which can be rented at a discounted price, e.g. for companies social events or associations (price between 1500 and 3000 CZK/day).

Regardless of the type of creative hub, in order to ensure long-term functioning, careful consideration should be given to the choice of location and buildin, to further support activities that take place in the hub (both spontaneously and managed through the services offered) and to provide financial and intangible support. These topics are crucial for the existence of hub. This research is focused on the topic of locality and the building in which the hub is located. The research shows that the locality is a very important and strong point of most Czech creative hubs. The location of the hub must be chosen strategically where there is the greatest demand from potential candidates, but also close to city centers, business districts, universities or similar locations where the public (and potential partners) is concentrated. The value of the land or property is also important for the correct setting of membership fees and prices for courses, workshops or events offered. Once hubs have established a permanent location, another important prerequisite for the successful development and functioning of the hub is the availability of supportive aspects made by establishing partnerships, which may include partnerships with an Internet service provider, accounting systems or real estate agents to finance rent.

3. Methodology

The main aim of the research was to identify, analyze and evaluate factors influencing the selection of a site for hub placement in selected cities in the Czech Republic where mapping surveys of cultural and creative industries have been carried out. Attention was focused on the cities of Prague, Brno, Ostrava, Pilsen, Olomouc, and Zlín, where it was possible to work not only with relevant data and information but also with the already established creative environment. This was absolutely crucial for the selection of cities. Regardless of the above-mentioned premise of the natural concentration of creative hubs in large cities, in our selection, there are cities widely ranging in size from 75 thousand -1.3 million inhabitants. The analysis also found out whether the founders chose hub locations appropriately with regard to potential customers and competition. What hub founders consider to be the most important factors in the selection of a buildings and whether the factors identified differ in selected cities in the Czech Republic was also

determined.

In order to fulfill the aim of the work, extensive research was carried out based on two standard methodological approaches used in the social and economic sciences - quantitative (objective) and especially qualitative (subjective). Quantitative approaches are based on deductive methods based on theory, formulation of research questions, observation, testing of research questions, analysis and comparison of data, interpretation and generalization of knowledge. Qualitative approaches are linked to inductive methods, such as field observation and research, semi-structured interviews, finding out (ir)regularities, evaluations, etc. – more generally, non-numerical surveys and interpretations. Both basic approaches are intertwined throughout the research and do not have explicitly sharp boundaries (see Table 1).

First, an extensive desk research method was developed to create a database of creative hubs that captured selected quantitative indicators in particular, the number of hubs (see Table 2), the number of rooms, staff, members, membership fee or turnover, legal form or year of origin. Basic hub information, including contacts to hub directors or managers, was obtained from the hub websites, city or city cultural initiatives, and online platforms. Information on the date of origin, legal form, contact person or address was verified using the Business Register. Creative hubs were typologically divided into creative, coworking and makerspace in the database created, following the example of British Council research (2014b).

From quantitative methods, the questionnaire survey method was used. The founders, directors or community managers of all the creative hubs identified were contacted by e-mail (eventually by phone) asking to fill in the questionnaire. The questionnaire dealt primarily with site and building selection, funding, activities, services, strengths, and weaknesses or potential for development and potential threats and wishes for the future. It also examined the relationship between the creative hub and public and private sector support. The questionnaire could be filled in electronically or sent by e-mail. Data were collected from February to October 2018. The questionnaire containing both open and closed questions could be filled in anonymously, but no respondent used this option. A total of 94 respondents participated in the questionnaire survey, of which 35 were from creative areas, 43 from coworking and 16 from maker spaces. One respondent from each identified creative hub (see Table 2) filled in the questionnaire (it was the founder, director or community manager). The return rate of the questionnaire survey was 100%.

The questionnaire survey was followed by semi-structured interviews discussing in more detail the key findings of the questionnaires. The topics of the interviews are therefore analogous to the questions from the questionnaire. All respondents who completed the questionnaire were asked to provide an interview (in total, 94 respondents). Interviews took place between February and November 2019 in selected cities. First, creative hubs were visited in Prague, then in Brno, Olomouc,

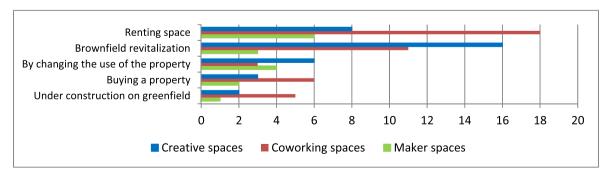


Fig. 3. The most common ways of developing a creative hub Note: the number of respondents from creative spaces was 35 (= 100%), coworking 43 (= 100%) and maker space 16 (= 100%). Source: own survey (2018-2019).

Pilsen and finally in Zlín and Ostrava. In almost all cases, interviews took place directly in the hub, only occasionally elsewhere (eg in a cafe) or via Skype or a phone call. During on-site observations, satisfaction with the functioning of the hub, staffing, premises and equipment and, last but not least, satisfaction with the services, activities, and events taking place in these premises was ascertained.

Out of the total number of creative spaces identified in all the selected cities in the Czech Republic (Prague, Brno, Ostrava, Pilsen, Olomouc, Zlín), all 35 were actively involved in the research through the questionnaire survey, and 77% of them participated in further research as well. Another type of creative hub is coworking spaces, which are more focused on business and profit than creative and maker spaces. Of the total number of identified coworking, all 43 were actively involved in the survey in the form of a questionnaire survey, and 53% in the form of the semi-structured interview, which is significantly less than in the case of creative spaces and maker spaces. Compared to creative spaces or maker spaces, there was a greater willingness for coworking representatives to interview via Skype, a common way of communicating in the business world. Of the total number of maker spaces located in selected cities of the Czech Republic, 16 of them actively participated in the survey, and 75% also interviewed. Involvement in research is summarized in Table 3.

The interviews also addressed Czech actors from the public sphere, who were selected based on an overview of research relating to the mapping of cultural and creative industries in the Czech Republic. The questions for the semi-structured interview were formulated as a guide. Pilot testing was carried out to clarify the formulation of questions and estimate the duration of the interview, including minimizing the imposition of certain answers. After testing the questions, interviews were held during 2019. There were 14 interviews with public sector representatives (at least two representatives from each city). Suggestions from hub management were analyzed and compared with information from city representatives. Suggestions from interviews and questionnaires were elaborated on in detail and subsequently discussed with similar foreign researches.

4. Results

The largest number of creative hubs is naturally concentrated in large European cities (often capitals), where there is an educated and skilled workforce, good technical and transport infrastructure, natural competition and business support, and sophisticated and advanced creative and cultural environment. Research has shown that the actual

concentration of creative hubs in the Czech Republic is primarily dependent on the population size of the city and its economic strength and socio-cultural potential, since most hubs are located in the capital city of Prague and further afield in Brno and Ostrava. However, to answer fully the first research question (RQ1), it is necessary to add that the growing digital and technology sector, however, requires a constant supply of the aforementioned qualified human capital, a trend that is starting to emerge in smaller cities. For this reason, creative hubs are also growing in cities such as Olomouc, Pilsen and Zlín, as the emptiness of the creative scene leads visionary individuals to create space that allows them to participate in a thriving digital and creative economy.

As the questionnaire survey and semi-structured interviews showed, in almost all cases hubs were created on the initiative of enthusiasts or small groups of friends who did not find suitable premises in the city to develop their activities. The chart below, which shows the development of the number of creative hubs in selected cities in the Czech Republic, shows that these are a phenomenon in the Czech environment of the last decade.

As reported by the British Council (2014a, 2014b), Guerra and Moreira (2015), Dovey et al. (2016) or Siregar and Sudrajat (2017), creative hubs can take physical and virtual forms depending on each hub's main activity. Just like abroad, physical spaces predominate in the Czech Republic. In the urban context, the problem lies in the correct choice of location and building. In the case of business-oriented hubs, the choice of location is absolutely crucial as the decision can have a significant impact on the development of the whole business.

The most creative hubs in the Czech Republic were created by renting space or revitalizing brownfields (see graph below). The five main ways of creating a hub include changing the use of real estate (in the case of smaller maker spaces, for example, the change in the use of buildings originally defined as warehouses), and further the purchase of real estate (often in the case of larger coworking) or greenfield construction (again frequent in the case of coworking). All these methods are associated with a number of acquisition costs, most of all in situations where space is purchased, newly built or significantly reconstructed.

Interviews conducted to answer the second research question (RQ2), which examined the most important conditions and factors affecting management when selecting a location for the location of a creative hub, revealed that the hubs' founders were paying particular attention to the financial possibilities. First of all, they considered the purchase costs, which are significantly lower in smaller cities (which is a competitive advantage of these cities), so it is not surprising that the founders of

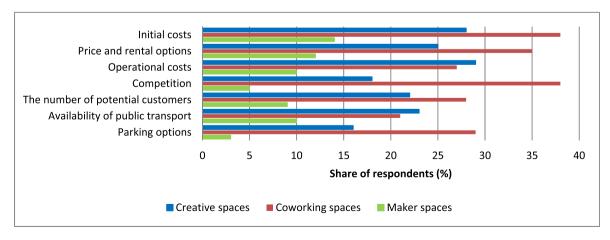


Fig. 4. The most frequent factors influencing the selection of a locality according to individual hub typesNote respondents could give up to three answers, the number of respondents from creative spaces was 35 (= 100%), coworking 43 (= 100%) and maker space 16 (= 100%).

Source: own survey (2018–2019).

Prague's creative hubs, in comparison with other cities, considered this factor the most important when selecting a location.

A similar situation exists in the case of a rental when the price is significantly higher in larger cities (especially in Prague and Brno). Price and rental options (e.g. length of rental) were the most important factors when choosing a location in the case of Prague hubs again. It is also important to consider hidden costs. In the case of a sublease, these might take the form of, for example, a refundable deposit, which is required in advance and can climb up to three months' rent, or the overhead of a real estate agency, if the search was conducted through its services. Additional hidden costs may be associated with unexpected space repoyation needs.

The financial side is closed by the costs of the operation itself. In particular, the energy-related to the operation (electricity, water, heating). Large hubs (approx.. 1000 m²) took this factor into account, which is probably due to the higher costs of heating and lighting the premises. Energy costs are broadly comparable everywhere, but in the case of larger cities, a broader range of suppliers can be selected. The statement "Owning physical space means more costs, the more space there is, and the more money costs maintenance" explains why some hubs are trying to establish partnerships or seek sponsors to cover costs.

Another factor influencing site selection is the strength of competition, which is a significant factor especially for hubs located in large cities. It is not uncommon for several similar entities offering similar products or services to be found in the same locations. This also applies to creative hubs. In particular, business-oriented hubs are aware that if they want to attract candidates, they need to be successful in the marketplace and therefore seek to offer different services.

The city's population also influences thinking about the number of potential customers. This factor played a big role in locality selection, especially in large cities. It is important to note that it is necessary to think not only about the inhabitants but also about the potential customers, which is influenced by the above-mentioned presence of competition. The population and the number of customers may be similar and even the advantage of smaller cities, because people simply do not have as many opportunities to visit larger cities than their own, which applies not only to creative hubs but generally to many other organizations.

As the interviews showed, target market analysis (or at least customer analysis) has been processed only by coworking spaces and some maker spaces. These analyses are considered to be a useful basis for the development of business plans as they contain important

information such as the distance of the hub from the centre and the means of transport, the number of potential customers, including their structure and needs, or location and strength. Creative space representatives said they knew about their closest competition and their potential customers or target groups, but had no studies. This is probably because they are not as entrepreneurial as coworking spaces, but many managers have said that similar analyses would be needed but that they lack sufficient staffing capacity to carry them out.

When considering potential customers, their convenience should be considered, in particular, the availability of means of transport and parking near the hub. Accessibility by public transport can be a problem especially in smaller cities, where the transport network is not so dense and passengers on some connections have to wait longer. A wide choice of means of transport and frequency of connections is certainly a big advantage of larger cities, which is also reinforced by the fact that through heavy traffic, traffic restrictions, congestion or one-way roads, it is often better to choose public transport.

Smaller cities, where there are not so strict restrictions (e.g. parking zones or expensive parking), have an advantage in a parking. Parking is problematic especially in larger cities (mainly in Prague and Brno), where the situation is usually solved by the construction of parking spaces in the exterior of the hub. Most often parking places are offered to members (free or paid). In the case of members, parking plays an important role in coworking and maker spaces and, in the case of the public, in creative spaces.

In almost all cases of the Czech hub, the locality was appropriately selected, which was confirmed by the fact that most hub directors are not considering a change (see Table 5). The calculated variations are low, which indicates the consistency of the responses of the representatives of the creative hubs. Only a minimum of coworking space managers consider the change with regard to pricing policy. In the case of small cities, lower prices can be expected, which translates into lower membership fees and space rentals, but on the other hand, lower operating costs, which can lead to the same profit in a smaller city as a large one. In a larger city, however, there is a greater risk of rent rises in relation to the competition. Some coworking directors are therefore considering changing locations to places where competition is not so strong (see Table 6) (see Table 4).

The location of the hub influences the selection of the building itself, which was addressed in the third research question (RQ3), which focused on the identification and analysis of factors influencing management in such a selection. The research showed that the most

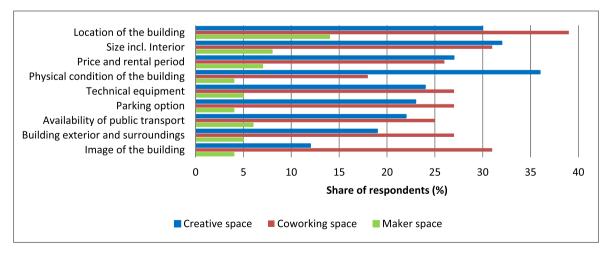


Fig. 5. Factors playing a role in building selectionNote respondents could give up to three answers, the number of respondents from creative spaces was 35 (= 100%), coworking 43 (= 100%) and makerspace 16 (= 100%).

Source: own survey (2018-

2019).

important factor in all types of hub was the location of the building. Respondents who made the answer more specific stated that this was a location relative to the city centre, to other cultural and creative organizations, or the concentration of potential customers (both members and the public).

Another factor was the size of the building and the layout of the interior. Size requirements have arisen especially for creative spaces, which need a relatively large area for their product creation and storage. Mainly the maker space founders arrange the spatial disposition of the building and equipment, which is because the space is usually divided into dirty and clean parts of the workshop.

Furthermore, the founders of Czech hubs considered the technical aspects of the buildings, for important. Equipment and networking of premises with better facilities were preferred. When choosing between several potential buildings, the connection of the hub to public transport and parking facilities played a role. In larger cities, more weight was attributed to parking options and in smaller cities to transport services, which corresponds to factors influencing site selection.

Regardless of the type of hub, respondents stated that they were considering the price and rental period and the physical condition of the building with rgard to the need of repairs when selecting the building. Given the significantly different rental prices for larger cities, it is not surprising that individual respondents gave different weights to these factors. As in the case of the factors influencing the site selection, the importance of the factors in the case of Prague and Brno can be seen here. On the other hand, in the case of Pilsen and Zlín, the founders did not attribute such a strong weight to these factors (see table below).

The last two factors influencing the selection of the building are associated with the overall philosophy and activities of a particular hub. The way the hub wants to profile is also reflected in the preference for the overall appearance of the building and its exterior. Creative spaces and approximately a quarter of coworking and maker spaces prefer brownfield, that is, old, neglected buildings, which need to be abandoned for many years because they build up an image of bringing them back to life, which was also confirmed by van Holm's research (2017). The link between the appearance of the building and the image was most apparent in the case of hubs in Prague, which is probably due to strong competition; and in Pilsen, which is probably connected with the title of European Capital of Cunningham Stuart, 2012, which put more pressure on having a good image.

Over the next five years, more than half of all creative hubs are planning to expand their current premises. The creative and maker spaces plan to add mainly exterior spaces (such as parking, garden or terrace) and coworking to develop the interior (from a small room to the addition of a larger meeting room or extension of the entire building). More than half of the management is considering increasing the equipment of the hub. The main reason is the effort to meet demand from the members of the hub. More than half of the hubs consider the facilities and technical equipment satisfactory (see Table 7). If they want the hubs to remain attractive to their members and potential new entrants, they must go with the time and upgrade and modernize equipment. The interviews showed that all hub managers are aware of this, but some have expressed concern about the ability to procure equipment



Fig. 7. Keywords related to location selectionSource own survey (2018–2019).

Table 1British Council hub typology (2014a).

Creative hub type	Characteristics
Network	A scattered group of individuals or businesses
Studio	Small group of individuals/small businesses in the workspace
Center	Center building on a large scale that may have additional assets such as a café, bar, cinema, factory area, shop or exhibition space
Online platform	Uses only online methods - web/social media to interact with a dispersed audience
Cluster	Cluster co-location of creative individuals and businesses in a geographic area
Alternative	An alternative for experimenting with new communities, sectors and financial models

Source: Dovey et al. (2016).

in terms of purchase and maintenance costs. In Table 7, relatively consistent answers of representatives of creative hubs can be seen in the case of questions determining the current state of the premises and planned changes, incl. evaluation of facilities and facilities.

The correct setting of the business model is also of particular importance for hub sustainability. In particular, coworking facilities have specialized business plans that helps the hub management to design and demonstrate their activities in a structured way. Usually, this is an annual plan of activities. All these coworking spaces have a detailed plans of activities and, according to information from interviews, work regularly and keep them updated. Research has shown that the more a business-oriented hub is, the clearer the plan it must have, as it is crucial to properly set up activities and target finance, or rather, return on investment.

On the other hand, creative spaces are less well prepared with regard to planning activities and programs. This is due to the lack of business plans and often the unintended consequences of their cooperation with donor organizations, making them less adaptable to the changing external environment. An inadvertent consequence may be in the form of a donation or sponsorship, but often with specific conditions imposed on its use, which ultimately has a counterproductive effect. A poorly





Fig. 6. FabLab, PrusaLab, FutLab (left to right) Source: own survey (2018–2019).

Table 2Total number of creative hubs in selected towns of the Czech Republic (December 31, 2019).

The type of creative hub	Prague	Brno	Ostrava	Pilsen	Olomouc	Zlín	Total
Population	1.3 mil	380 ths	289 ths	173 ths	100 ths	75 ths	2.317 mil
Creative spaces	18	6	5	3	2	1	35
Coworking spaces	20	12	5	2	2	2	43
Maker spaces	7	4	2	2	1	0	16
Total	45	22	12	7	5	3	94

Source: own survey (2018-2019).

Table 3Number of participating hub in the research.

The type of creative hub	Questionnaire survey	Semi-structured interview	On-side observation
Creative spaces	35	27	18
Coworking spaces	43	23	14
Maker spaces	16	12	11
Total	94	63	43

Source: own survey (2018-2019).

Table 4Importance of factors influencing site selection by city.

	Prague	Brno	Olomouc	Pilsen	Zlín	Ostrava
Initial costs	xxx	xxx	х	xx	x	xxx
Price and rental options	xxx	xxx	xx	x	х	XX
Operational costs	xxx	XX	x	x	xx	XX
Competition	XXX	XXX	xx	XX	x	XXX
Number of leads	XXX	XXX	xx	XX	XX	XXX
Public transport	X	x	xx	XXX	XXX	XX
Parking	xxx	xxx	x	x	X	XX

Note: scale from small role of factor (x) to medium (xx) to large role of factor (xx) - averages of responses regardless of type of creative hubSource: own survey (2018-2019).

elaborated plan can have an impact not only on the miscalculation of costs and revenues but also on the assessment of competition and image. The worst strategic planning is in case of maker spaces. Only the Brno and Pilsen FabLab and the Prague PrusaLab and FutLab have prepared business plans (see photo below).

Maker space is also a hub that was established on the basis of inspiration from established branches (in the Czech Republic or abroad). Most maker spaces only have a draft program of events to be held in the next year, which will generate direct events. Similarly, they do not have an in-depth overviews of those interested in the services offered, which makes it difficult to plan and be able to estimate whether their activities will be profitable. Poor or imperfect planning can also result in enormous interest in some activities leading to the space not being sufficient, or some of the services offered having low interest resulting in unprofitability.

5. Discussion and conclusion

Research has shown that the largest number of creative hubs,

regardless of the type of hub, is concentrated in large cities, and as in advanced economies, the largest number of hubs in the Czech Republic is in the capital. Brno (400 thousand inhabitants) and Ostrava (300 thousand inhabitants) ranked behind metropolitan Prague with 1.3 million inhabitants. This confirms the findings of Hall (2000), which states in its research that the creative class and companies in the creative industries are strongly concentrated in large cities and urbanized regions. Creative local production systems that focus on traditional cultural industries and technology related to creative industries are concentrated in the largest urban systems. This is confirmed as well in research by Lazzeretti et al. (2008), which examined the location of cultural and creative industries in Italy and Spain. The link between the concentration of the creative class and the size of the city was also shown by empirical research in Florida (2002), which, as in the case of our own research, confirmed that the urban environment attracts more creative people as well as businesses and capital. The research carried out in the Czech Republic confirms the results of foreign research and opens up other questions (eg Should the city actively support the creation and operation of creative hubs? If so, what are the support options?).

According to Spenser (2008) and Goldenberg et al. (2009), with the development of society, increasing digitalization, modernization, ICT

Table 6Importance of factors influencing the selection of the hub building.

	Prague	Brno	Ostrava	Olomouc	Plzeň	Zlín	
The connection between the appearance of the building and the image of the hub	Xx	xx	х	х	xx	х	
Building exterior and surroundings	Xxx	xx	x	xx	xx	x	
Availability of public transport	X	X	x	x	x	XX	
Parking options	Xxx	xx	XX	x	x	x	
Technical equipment (including networks)	Xx	xxx	x	x	x	X	
Physical condition of the building (need for repairs)	Xx	XX	XX	xx	x	XXX	
Price and rental period	Xxx	xxx	XX	X	x	x	
Building size incl. interior layout	Xxx	xxx	xxx	x	xx	x	
Location of the building	Xxx	xxx	xxx	xxx	xxx	XX	

Note: role of factor: small (x), medium (xx), large (xx) - these are averages of responses regardless of hub typeSource: own survey (2018–2019).

Table 5Site selection and potential change of hub location.

Selected questions from the questionnaire survey	Creative spaces	Creative spaces		Coworking spaces		Maker spaces	
	Average score	Variation	Average score	Variation	Average score	Variation	
Has the location of your creative hub been chosen appropriately?	4.26	0.53	4.21	0.82	4.31	0.84	
Are you thinking about changing the location of your hub?	2.03	1.17	1.93	0.95	1.88	0.73	

Note: Average scores indicate averages from answers on a point scale from definitely yes (5 points) to definitely no (1 point); the total number of respondents from creative spaces was 35 = 100%, coworking 43 = 100% and makerspace 16 = 100%. Source: own survey (2018–2019).

Table 7Do you consider the background and technical equipment of your hub suitable?

Selected questions from the questionnaire survey	Creative spaces		Coworking spaces		Maker spaces	
	Average score	Variation	Average score	Average score	Variation	Average score
Are the current premises sufficient for your activity?	3.11	1.36	3.51	1.09	3.31	1.59
Do you plan to expand the current premises in the near future (within 5 years)?	3.77	1.32	3.67	1.34	3.38	2.11
Do you consider the background and technical equipment of your hub to be satisfactory?	3.77	1.03	3.63	1.30	3.50	1.25

Note: Average scores indicate averages from answers on a point scale from definitely yes (5 points) to definitely no (1 point); the total number of respondents from creative spaces was 35 (= 100%), coworking 43 (= 100%) and makerspace 16 (= 100%). Source: own survey (2018–2019).

and technological progress, increasing pressure is being placed on the need to secure skilled human capital, which is also beginning to emerge in smaller cities. The authors' own research confirmed that there is an increase in the number of entities (employees and employers) in cultural and creative industries and in smaller towns up to 200 thousand people such as, Plzen, Olomouc or Zlin in the Czech Republic. The influence of urban policies on the origin and development of creative hubs could be debated, as most hubs were created on the basis of the enthusiasts' or a small group of friends' own initiative.

Research by the British Council (2014b) and further research has confirmed that each creative hub is unique in its geographical location. Local diversity provides favorable conditions for highly creative economic activities. One area that looks promising is the linking of geographic location with network analysis, as evidenced by Spencer's research (2008), which says that if we can understand how local environments affect people, we can begin to ask how location affects learning and subsequent creative activity. Similarly, a study by Evans (2009) found that creative hubs are usually managed at the city level, with the main focus being on offering services and space for cultural and creative entrepreneurs who are located in the city.

Many founders of Czech creative hubs preferred the choice of an old abandoned building, whose return to life has built an image. Old abandoned industrial sites or former agricultural buildings are very attractive for creative people, but they are connected with the need for more initial investment, which discourages some interest. Conversations with city leaders have shown that turning brownfields into art spaces is welcome. Cities should, therefore, support this idea and make the buildings accessible (clarify property rights, rent buildings at a discounted price). As European research (2009) revealed, many European cities support creative spaces and use cultural and creative neighborhoods as centers of knowledge and a panacea to implement wider plans to restore old industrial sites and buildings and revitalize cities. The situation in the Czech Republic in this area is not as developed as in the case of creatively developed Germany, Austria or Estonia, but progress has been noted. One example is the simultaneous realization of the transformation of the former penitentiary building and the unused brownfield in Brno into a creative hub.

Many foreign researchers are also engaged in urban revitalization through culture. For example, Charles Landry (2012) considers it necessary to incorporate culture and art into urban development strategies, or Pratt (2008) reviews the Florida (2002) idea that the creative class plays an important role in the urban regeneration process.

CRediT authorship contribution statement

Markéta Chaloupková: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. Josef Kunc: Funding acquisition, Methodology, Resources, Supervision, Validation.

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<u>Update</u>

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Erratum regarding missing Declaration of Competing Interest statements in previously published articles



Declaration of Competing Interest statements were not included in published version of the following articles that appeared in previous issues of City, Culture and Society. Hence, the authors of the below articles were contacted after publication to request a Declaration of Interest statement:

- "Locality selection matters. Investigating creative hubs in the Czech urban environment" [City, Culture and Society, 2022; 28: 100440] https://doi.org/10.1016/j.ccs.2022.100440
- "The death and life of Australian suburbs: Relationships between social activity and the physical qualities of Australian suburban neighbourhood centres" [City, Culture and Society, 2022; 28: 100426] https://doi.org/10.1016/j.ccs.2021.100426
- "After Covid-19: A survey on the prospects for cities" [City, Culture and Society, 2021; 25: 100400] https://doi.org/10.101 6/j.ccs.2021.100400
- 4. "An innovative social enterprise: Roles of and challenges faced by an arts hub in a World Heritage Site in Malaysia" [City, Culture and Society, 2021; 25: 100396] https://doi.org/10.1016/j.ccs.20 21.100396
- "Underlying relationships between public urban green spaces and social cohesion: A systematic literature review" [City, Culture and Society, 2021; 24): 100383] https://doi.org/10.1016/j.ccs. 2021.100383
- 6. "This land is not for sale': Post-1994 resistance art and interventionism in Cape Town's precarious publics" [City, Culture and

- Society, 2021; 23: 100368] https://doi.org/10.1016/j.ccs.20 20.100368
- "Reframing the creative city debate from locally-based artistic activities. The case of independent films scenes in Paris suburb" [City, Culture and Society, 2020; 100357] https://doi. org/10.1016/j.ccs.2020.100357
- "Place is memory: A framework for placemaking in the case of the human rights memorials in Buenos Aires" [City, Culture and Society, 2021; 21: 100419] https://doi.org/10.1016/j.ccs.20 21.100419
- "Urban Phases: Crystallisation" [City, Culture and Society, 2020;
 100327] https://doi.org/10.1016/j.ccs.2019.100327
- "Laden with great expectations: (Re)Mapping the arts housing policy as urban cultural policy in Singapore" [City, Culture and Society, 2021; 21: 100339] https://doi.org/10.1016/j.ccs.20 20.100339
- "Urban Ethics: Towards a Research Agenda on Cities, Ethics and Normativity" [City, Culture and Society, 2020; 20: 100313] htt ps://doi.org/10.1016/j.ccs.2019.100313
- "Urban transformation and cultural evolution of post-socialist European cities. The case of timisoara (Romania): From 'Little Vienna' urban icon to European Capital of culture (ECoC 2021)" [City, Culture and Society, 2020; 20: 100296] https://doi. org/10.1016/j.ccs.2019.100296