ReCreating Europe

Rethinking digital copyright law for a culturally diverse, accessible, creative Europe

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List of Abbreviations

CC	Creative and Cultural
CCI	Creative and Cultural Industries
COVID-19	Coronavirus Disease of 2019
EOCIC	European Observatory for Clusters and Industrial Change
EU	European Union
IP	Intellectual Property
PESTL	Political, Economic, Social, Technological, Legal
SMEs	Small and Medium-sized Enterprises
TCC	Telliskivi Creative City
UTARTU	University of Tartu

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Executive Summary

Previous studies show that micro and small enterprises in creative and cultural industries (CCIs) tend to be influenced by physical co-location – the agglomeration[1]. A high level of agglomeration is, however, in many senses the opposite to digitalisation: there is a contrast between operating an enterprise based on face-to-face contacts and physical attendance and operating one based on digital contacts and a digitally managed value chain. Existing studies indicate two gaps in the research of the digitisation of CCI experiencing crucial changes in digitisation and especially during the ongoing COVID-19 pandemic[2]. First, there is a lack of knowledge regarding how the two macro-trends of agglomeration and digitalisation in CCIs are related to each other, for example leaving it open whether agglomeration offers support in digitalising enterprises. Second, there is a lack of knowledge regarding how digitalisation and especially digitalisation in the context of the recent COVID-19 pandemic affects the strongly agglomerating CC enterprises. For example, it is unclear whether it initiates a structural change within strongly agglomerated CC enterprises.

This interim report offers an account of the changing entrepreneurship patterns of agglomerated CC enterprises located in gentrifying urban neighbourhoods. As the literature suggests, we are observing a change in entrepreneurship patterns characterised by an increase in digitalised operation. To understand the digitalisation patterns, we studied entrepreneurs who are 1) **born-digital**, 2) operating in both **digital and physical** forms, and 3) operating only in a **physical** form.

We collected the data on a case study basis from micro and small-sized enterprises situated in the creative hubs in Northern Tallinn in Estonia – an agglomerated neighbourhood like the creative areas in other European cities such as London, Milan, Berlin, and others, where old industrial buildings are converted into new office spaces and creative hubs.

The in-depth interviews with entrepreneurs show that the COVID-19 pandemic boosted the digitalisation in every phase of the value chain for all three types of enterprises. Surprisingly, the agglomeration of the CC enterprises in the creative hubs played a significantly lesser role than expected in the context where enterprises searched for solutions to their digitalisation challenges. Rather, depending on their mode of operation before the pandemic, enterprises experienced different constraints and enablers to innovate. While the born-digital enterprises were flexible in acting even in the grey zones of digital environments, the enterprises that operated only in a physical mode or in-between two modes needed to find solutions regarding constraints in political, economic, socio-cultural, technological, as well as legal (PESTL)[3] macro-environmental dimensions.

This interim report serves as an input to the next report D4.5 which pays particular attention to the new emerging business models and their intellectual property (IP) issues. It also provides the scoping input for WP4, considering that one of the goals of the reCreating Europe consortium is to understand what constitutes a proper balance between copyright protection and limitations if the purpose is stimulating creativity and diffusion.

[1] Heebels and Van Aalst, 2010; Avdikos and Kalogeresis, 2017 (in the reference list)
[2] Salvador *et al*., 2020 (in the reference list)
[3] Broader model of PESTLE that includes environmental dimension was not used due of the specifics of selected case studies. The analysed enterprises are situated in a homogeneous urban environment and the impact of environmental dimension couldn't be distinguished in the analysis.

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1. Methodology

1.1 Aim and outline

This interim report provides a preliminary analysis of the research carried out in the context of WP4 on studying creative and cultural (CC) entrepreneurs of gentrifying neighbourhoods. It collects information about the main trends within creative industries to identify possible business transformations through digitalisation and investigates the effects of these transformations on cultural diversity. This report also provides the theoretical and empirical introduction to D4.5, which pays particular attention to the new emerging business models and their intellectual property (IP) issues. It also provides the scoping input for WP4 since one of the goals of the reCreating Europe consortium is to understand what could constitute a proper balance between copyright protection and limitations if the purpose is stimulating creativity and diffusion.

The neighbourhood that is undergoing gentrification aggregates the most urgent transformation processes taking place in the CC sector: agglomeration and digitalisation. **This interim report aims to study the changing entrepreneurship patterns of agglomerated CC enterprises located in gentrifying urban neighbourhoods.** The research is articulated around two key questions:

1. How do enterprises use and benefit from agglomeration and digitalisation in the production and distribution of CC products?

2. How do their digitalisation and agglomeration related choices leverage the preservation or growth of cultural diversity?

To answer the questions, we concentrate on the CC enterprises that are residing in the creative hubs, thus the enterprises that are already agglomerated. The enterprises differ in their digitalisation patterns and thus give valuable input for comparisons between 1) **born-digital**, 2) **between digital and physical** and 3) **physical** operation of an enterprise.

This interim report is divided into the following chapters. **Chapter 1** presents our conceptual framework and methodology. We first provide a short theoretical introduction and state the research problem. Then we provide a detailed overview of the sampling of entrepreneurs interviewed, describe the method of qualitative interviews applied and show how interview data was analysed. In subsequent chapters, we present the main results of the analysis divided according to the main two key processes under study: agglomeration (in **chapter 2**) and digitalisation (in **chapter 3**). To do so, we show how creative entrepreneurs from different entrepreneurship patterns benefit from agglomeration, explain how they can digitise their enterprise, define the enablers and barriers experienced when going digital, and present what kind of support CC entrepreneurs need in the context of the accelerating digitalisation. Finally, we discuss the effect of digitalisation and agglomeration on the preservation or growth of cultural diversity. This report considers cultural diversity as the presence of different creative and cultural enterprises, both of digital and physical forms of operation. **Chapter 4** provides a conclusion and the main takeaways from the research conducted.

1.2 Theoretical introduction and problem statement

This chapter builds the theoretical framework for the study. We first explain the relations between the main keywords we study in the context of CCI – digitalisation, agglomeration, gentrification, creative hubs, COVID-19 pandemic, and cultural diversity. This allows us to delineate the research territory and to show

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the relevance of the study. Following that, we state the main research problem that the present interim report aims to address.

Rapid technological and social changes have changed the production and consumption of creative products. Spotify has changed the music industry, Facebook and Google have become marketplaces for creative products, and web-based software and online distribution have changed how, for example, computer-aided designers' work. Internet technology enables the diffusion of creative products to take place rapidly, remotely, and inexpensively (Rae, 2008). **Digitalisation** has created a new dimension of online channels and networks where entrepreneurs can communicate with other entrepreneurs, mentors, friends, and their clients (Avdikos and Kalogeresis, 2017). The European Observatory for Clusters and Industrial Change (EOCIC) has conducted an overview of global megatrends across ten emerging industries (Figure 1). It shows that CCI in general, have changed most towards the trends of customisation and servitisation and are more data-driven than ever but at the same time tend to slowly move towards automation. Customisation and servitisation trends mean the transformation from the mere offering of products to the market to providing innovative, invaluable and demand-based services alongside their products. For example, Spotify offers a service that aims to build up a stable relationship with clients as a service instead of one-time purchased product.

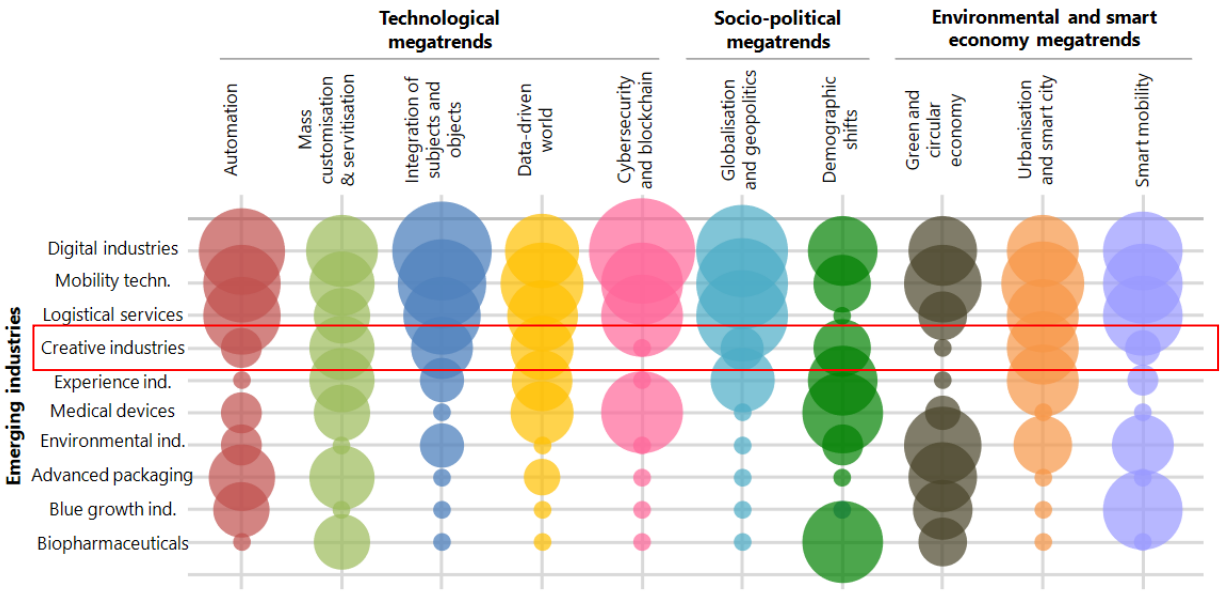

Figure 1. Impact of global megatrends on ten emerging industries (Source: EOCIC, 2019)

Most visible changes in the digitalisation of CCIs can be found where large service providers and platforms have entered the market (European Cluster and Industrial Transformation Trends Report, 2019). However, CCI as a whole is seen to be still not placed at the forefront of digitalisation, and still many creative entrepreneurs have not gone digital (Avdikos and Kalogeresis, 2017). It has been argued that micro and small-sized creative enterprises still tend to locate in creative clusters, hubs and locations that offer physical proximity with suppliers, shared office space and contacts with other entrepreneurs and direct contact with clients (Evans, 2009). In fact, creative hubs have been a rapidly increasing global phenomenon since the 2000s (Creative Hubs Report, 2016) despite digitalisation allowing to communicate, cooperate and produce creative products and services without locating in the same location. It is argued that the innovation in the CCI tends to take place largely within dense webs of micro-interactions depending to a large extent on tacit knowledge, physical proximity, and personal contacts (Taylor, 2008). This means that the clustering of creative industries will lead to the agglomeration of CCI – the physical concentration of

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creative and cultural (CC) enterprises in a specific geographical location. **Physical contacts – and agglomeration –** may have kept their key importance in CCI because of the particularities and nature of creative work (Asheim and Coenen, 2007). Creative persons (creatives) have been seen as 'blurring the demarcation lines' between consumption and production, individualism and collaboration, workplace and home, and social and professional networks (Rae, 2008; Heebels and Van Aalst, 2010). At the same time, the particular choice for locating the enterprise has been made by its owners – the creative entrepreneurs. These studies have laid particular emphasis on creative entrepreneurs from different creative sectors and their social and symbolic capital that describe the different layers of a creative entrepreneur's personal and professional relations and the embeddedness of economic action and symbolic value (Rae, 2008; Heebels and Van Aalst, 2010). The social capital of creative entrepreneurs is often seen as consisting of both the creator's professional network and personal contacts (Heebels and Van Aalst, 2010; Welter, 2011; Avdikos and Kalogeresis, 2017). An entrepreneur's non-professional or personal social network includes family, friends, and community relations (Heebels and Van Aalst, 2010). From a geographical perspective, some areas in contemporary cities – such as gentrifying neighbourhoods – offer the possibility to work and live in the same location that attracts many young adults and creatives eager to be close to culture, services and other city centre amenities.

Gentrifying neighbourhoods are considered as areas that enable the embeddedness of consumption and production, workplace and home, and social and professional networks (Ley, 2003; Curran, 2004). In many cities across Europe, such as London, Milan, Berlin, and others,[4] these areas host both residential properties and old industrial buildings converted into new office spaces and creative hubs. Traditionally, gentrification is defined as the transformation of working-class areas into middle-class neighbourhoods, which means the displacement of low-income residents by high-income groups (Cocola-Gant, 2019). This process brings new residents to the area who are characterised as childless, under 35 years of age, highly educated, employed in professional, managerial, and creative occupations, and receiving higher than average income (Ley, 2003; Blasius, Friedrichs, and Rühl, 2016).

Gentrifying neighbourhoods are also the places of encounter for creative production (the creators) and modern city centre living close to cultural services and creative production (the consumers). Richard Florida (2005) argues that gentrifying neighbourhoods attract creative people because of their creative milieu that is ignited by the local diversity of residents and tolerance towards others. He argues that growing clusters of CCIs are in places where there is a good living and working environment. Gentrifying neighbourhoods collocate residential change towards highly educated, creative, and young people but also have a social life that makes this environment good to work and live in (Pastak *et al.*, 2019). Florida's arguments addressed on the link between cultural diversity and gentrification can be broadened also to local CC entrepreneurship.

Cultural diversity, in the broadest sense, is about recognising and respecting the existence and presence of diverse groups and activities within a society. Cultural diversity in urban planning and entrepreneurship studies has been measured based on the number of local amenities and goods and access to these (Fincher and Iveson, 2008). Looking at cultural diversity from the perspective of entrepreneurship helps us see its two dimensions: the diversity of producers and the diversity of products (Ottaviano and Peri, 2005). While the final report will consider and study cultural diversity in a broad sense, in this interim report, we focus on a narrower concept of cultural diversity as characterised by the presence of different creative and cultural enterprises, employing either digital or physical forms of operation, or both.

[4] For Berlin, some of the examples would be the areas of Kreuzberg, Wedding, Schöneweide and Prenzlauer Berg. See: https://www.newyorker.com/news/dispatch/the-causes-and-consequences-of-berlins-rapid-gentrification; Heebels and Van Aalst, 2010 (in the reference list). For London, the area of Hackney can be considered an example. See: Pratt, 2009 (in the reference list); https://www.theguardian.com/cities/2018/mar/14/hoxton-square-london-shoreditch-aviva-gentrification-yba-damien-hirst.

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Creative hubs play a crucial role in the development of creative entrepreneurship in gentrifying neighbourhoods. A creative hub is a single building or building complex that has been created to provide shared workshop space, office space, networking opportunities, and other related services that may be necessary for microenterprises, SMEs, and self-employed people active in CCI (Pastak *et al.*, 2019). It is argued that creative hubs provide a safe environment to grow the business for small and micro creative enterprises, and thus are essential to increase the cultural diversity of creative enterprises (Tammaru *et al.,* 2016). Cultural diversity in a hub is considered to be high if the hub assembles different enterprises from various fields. At the same time, we also recognise that the cultural diversity of CC enterprises in a hub allows for wider access to cultural and creative products. The more there are different entrepreneurship patterns, or the more there are different CC products and services provided, the more and diverse range of consumers are being addressed[5]. It has been shown that digitalisation tends to lead to growth in cultural diversity because old products and production patterns are usually not replaced by new ones but supplemented with them (McQuail, 2010; Archer, 2013, 2015).

Creative hubs can be viewed as sites of micro-level clustering of creative enterprises where creative entrepreneurs desire to locate because of the creative environment, cultural diversity, cooperation advantages, trusted and safe environment, and local customer base (Pastak *et al.*, 2019). In the literature on the clustering of creative industries, two perspectives are used to explain why creative enterprises agglomerate: first, that emphasises the place qualities, and second, which uses the inner networks and cooperation as the main reason why creative entrepreneurs choose to locate close to each other (Heebels and Van Aalst, 2010). The first perspective focuses on the symbolic value of creative hubs that – being often the 'oases' of creativity, liberal thinking and undone or partly refurbished – tend to represent an environment where the creative identity and inspiration necessary for creative production can be achieved. According to the second perspective, planned and spontaneous knowledge exchange and local cooperation are highly valued by creative entrepreneurs and enable especially small and younger creative enterprises to establish their business relations and cooperation networks (Heebels and Van Aalst, 2010). Both perspectives rely on the fact that creative hubs as a micro-level form of clustering of creative enterprises are based on combining ideas and symbols through inter- and intra-enterprise interaction. Thus, we can see that although the trend in entrepreneurship has been forecasted to move towards digitalisation sooner or later, the opposite patterns of agglomeration of CCIs takes place.

The **COVID-19 pandemic** has, however, changed the way CC entrepreneurs work. During the lockdown, live concerts have been cancelled; sales can only take place in web-shops; enterprises must be run using Zoom, Skype, and other digital solutions. The pandemic has not only affected the income of CCI entrepreneurs but may have also changed the way of doing business and managing creative production. The pandemic could have an impact on the value chains of creative enterprises, like the impact of digitalisation on the creative enterprises that has been revealed in some case studies (Ahvenniemi *et al.*, 2014). In the very recent research of CCI, it is argued that the COVID-19 pandemic is the 'game-changer' and that once the digital ways of operation have been tested, these will become more widely used in this field (Salvador *et al.*, 2020). When digitalisation adds new products and services to the existing entrepreneurship patterns, creates new forms of collaboration and consumption, makes culture and creation more accessible, we can conclude that cultural diversity is growing. At least the history of media development has shown that old forms like books, theatre performances, cinema or radio broadcastings have not been replaced by new ones – by e-books, online performances, or video streaming in social media (McQuail, 2010; Archer, 2013); they co-exist in contemporary societies. However, there is a vacuum of studies that combine the two macro-trends of agglomeration and digitalisation and their effect on cultural diversity in the CCIs – especially concentrating on the impact of the COVID-19 pandemic and its aftermath.

[5] Our approach follows the concept of cultural diversity applied in the comparative analyses by UNESCO where cultural diversity is viewed as diversity of cultural expressions. See https://en.unesco.org/creativity/.

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1.3 Methodological overview

Due to the fact that entrepreneurship patterns and cooperation between actors is a micro-level phenomenon that can mostly be explained by the actors' behaviour, preferences, and interpretations of reality, we opted to use qualitative methods for the analysis.

The aim of the data collection was to get input for analysing the changing entrepreneurship patterns of agglomerated CC enterprises. For defining the CC sectors, we relied on the EU Creative Europe Programme[6] and included the following sectors in the analysis: advertising, art and antiques, crafts, design, film and video, music, performing arts, publishing, software, and TV and radio.

To document the change in entrepreneurship patterns between two major trends in CCI – the agglomeration and digitalisation – the sample of entrepreneurs was balanced between three forms of operation:

- **Born-digital** enterprises (e.g., web radio, web publishing, web design or software production), i.e. enterprises with digital management systems, producing digital products or offering digital services
- Enterprises **operating in both digital and physical form** (e.g., film and video, music production, photography) – enterprises that can combine digital and physical participation by individuals and groups, physical objects, or environment for the value creation
- Enterprises operating only in **physical form** (e.g., performing arts, crafts, arts and antiques) where the value chain functions mainly on the physical basis.

The sample of the enterprises was built based on geographical proximity (Robinson, 2014) and heterogeneity of activities. All enterprises are in two creative hubs in Northern Tallinn: Telliskivi Creative City (TCC) and Niine 11 creative house. For getting an overview of the population of enterprises and organisations acting in respective addresses, we used the search engine of the Estonian Commercial Register.[7] The entrepreneurs agglomerated in creative hubs in Northern Tallinn share common spatial experiences but differ in their activity sector. The sample covers different sectors at least by one representative; only architecture, computer games and fashion were not included in the sample.

We contacted the representative of an enterprise/organisation based on the data deriving from the Commercial Register or web page of the enterprise. Additionally, we studied the web pages of the enterprises, to be sure that they are currently active. We contacted the interviewees by phone or e-mail address. When we contacted the potential interviewees, we preferred the informants who have experience in the management of the enterprise. We assumed that the creators in the roles of managers have broader knowledge about the CC sector, at least in their own creative field.

To get a more general view into the analysis, we included the representatives of 'umbrella' organisations, i.e., associations of creators of a particular sector (theatre, music, film) in the sample, if they were situated in the creative hubs in Northern Tallinn. As the European Agenda for Culture (January 2018) suggests, in the CC sector, the entrepreneurship and business models are to be considered in a wider sense and both the

[6] See https://ec.europa.eu/culture/funding-creative-europe/about-creative-europe-programme
[7] The Central Commercial Register (https://ariregister.rik.ee/index?lang=eng) is an online service based on the central database of Estonian registration department of the court. The central database includes digital data from the commercial register, the commercial pledge register, the register of state agencies and local government institutions, the register of non-profit associations and foundations. The search engine of the Register enables users to search information about the registered bodies based on the postal address, name of the enterprise or single word in the name, registration number and activity field.

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for-profit and non-profit organisations contribute to the value creation in the field.[8] We refer to them as non-profit associations in the following chapters.

We collected interviews with 14 representatives of the CC entrepreneurs in TCC and Niine 11 between November 2020 and April 2021. The total length of interviews was 793 minutes (Table 1). The CC sector in Estonia comprises mainly micro-sized enterprises, like in Europe generally. The size of enterprises in the sample varied between two and 174 creative workers (public data from the Estonian Tax and Customs Board)[9].

Table 1. List of enterprises and organisations interviewed from Telliskivi and Niine (sample)

Form of operation	Interview number	Field of activity of the interviewed enterprise/ organisation	Duration of interview
Born-digital	No. 2	Consultations and software development	63 minutes
	No. 3	Web publishing	50 minutes
	No. 4	Web radio	51 minutes
	No. 5	Consultations and software development	68 minutes
	No. 8	Advertising	42 minutes
Operating in both digital and physical forms	No. 6	Advertising	57 minutes
	No. 7	Photography	71 minutes
	No. 9	Strategic design and branding	58 minutes
	No. 10	Music	48 minutes
	No. 15	Film	57 minutes
Physical	No. 1	Interior design	73 minutes
	No. 11	Theatre	36 minutes

[8] See https://op.europa.eu/en/publication-detail/-/publication/5d33c8a7-2e56-11e8-b5fe-01aa75ed71a1/language-en/format-PDF/source-68820857

[9] The website of the Estonian Tax and Customs Board can be found under the link https://www.emta.ee/eng. In the section "Inquiries" one can go to the public data where the Board presents quarterly data about the paying taxes and about the number of employers can be found for every registered enterprise in Estonia.

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	No. 12	Arts and crafts	51 minutes
	No. 13	Performing arts	68 minutes
		Total	**793 minutes**

We used the semi-structured interview method for the data collection to get deep insights into the transformations taking place in the creative hubs from the viewpoint of creators and creative entrepreneurs. The semi-structured interview method enables the interviewees to give more information about the topics relevant to them and to go less in-depth when talking about topics that are the less relevant to them. With this in mind, such interviews are labelled in the methodological literature as in-depth interviews. Interviews give information about the main challenges that entrepreneurs face in the digitalising environment and help to understand the benefits the creators see deriving from the collaboration opportunities in creative hubs. Since the data collection period overlapped with the crisis of the COVID-19 pandemic, the respective topic was included in the interview guidelines as well.

We divided the interview questions into two parts – personal interview questions about the interviewees' experience acting as a creative entrepreneur, and expert interview questions about the interviewees' observations about the transformations in the field of creative industries generally (see interview guidelines in Annex 3). The division enables us to generalise data on different levels. The first part explains the direct personal experiences of interviewees and thus allows the interviewees to approach it in a more descriptive manner. The second part requires interviewees to provide a meta-analysis while comparing their own experiences with their knowledge about the experiences of others in the same field.

The decision to include two levels of generalisations into the interview guide was made based on the conclusions from the former studies of the members of the research group in the same agglomerated area (Pastak *et al.*, 2019). In a small cultural context like Estonia, the different roles of creators as practitioners and experts at the same time can be easily mingled; they often act in both roles, they are entrepreneurs who collaborate and create associations to protect the interests of their field.

Since the interviews consisted only of little information about the IP issues, we carried out one additional interview with an experienced practising lawyer in the field of CCI (Interview No. 14, 60 minutes). The interviews were conducted by two researchers, and all were conducted via Zoom or Skype in Estonian. After that, the interviews were transcribed.

We have analysed the interview transcriptions following the research questions and the structure of the interim report. First, we analysed the agglomeration and gentrification patterns in Northern Tallinn. Second, we analysed the digitalisation processes of the enterprises in the sample and more general evaluations of the transformations in the CCI field (mainly focused on Estonia, but in case an interviewee had contacts and activity in other European countries or on the EU level, we have included that information into the analysis as well). For systematising the data, we have clustered the enterprises based on the operating form and extracted the main challenges in the dimensions of the value chain (design and concept creator, producer, distributor, retailer, and customer, see Ahvenniemi *et al.*, 2014: 167) for every cluster of enterprises, mentioned in the interviews. As the next step, we used the original PEST (political, economic, social, and technological) analysis framework (Aguilar, 1967) with added legal aspects (PESTL, see Nandonde, 2019) to see the possible impacts of macro-environmental factors on the digitalisation of agglomerated CCI enterprises perceived by the interviewed entrepreneurs. The political aspects are understood here as the aspects related to the decision-making processes on the state- and European level

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(as mentioned in the interviews). The economic aspects are understood as aspects related to the exchange of value and money mentioned in the interviews. The social aspects are understood as aspects related to the relations between people in the value creation process mentioned in the interviews. The technological aspects are understood as all the aspects related to technologies mentioned in the interviews. The legal aspects are understood as the aspects mentioned in relation to legislation and norms. The PESTL framework enables us to grasp the role that different constraints and enablers play regarding the developmental paths of enterprises.

The interviews were rich in material since the interviewees openly shared their experiences in the field of CCI. We analysed the interviews in the cross-case principle, where we searched for similar topics and aspects from different interviews, subsequently presenting different descriptions and viewpoints of the reality. We present the results in the following chapters. We have translated the citations from interviews into English and present the citations in italics with the interview number in brackets after the citation (see the interview numbers in Table 1).

2. Agglomeration of creative industries

2.1 Case study area description

The case study area Northern Tallinn is one of eight city districts in Tallinn, the capital of Estonia. It has traditionally hosted industries and housing for industrial workers. The first industries were established in the 19th century, and during the Soviet period, the area received many investments into new industrial sites. At the end of the industrialisation period by the 1990s, when Estonia gained its independence, about one-third of the land was being used for industrial purposes, or as warehouses, ports, and shipyards (Feldman, 2000). In the 2000s, this working-class housing area was discovered by younger generations and artists who enjoyed the location close to the city centre at a relatively affordable price (Kährik *et al.*, 2016) which is captured as the process of gentrification. A large supply of industrial properties that were used as warehouses or have been left out of use was also discovered by CC enterprises which found these to be affordable and suitable for their activities (Tammaru *et al.*, 2016). This marks the beginning of a fast transformation of an industrial area into a creative district. Rooms were partly refurbished to provide affordable office spaces throughout the first real estate crisis from 2008–2010 and were rapidly discovered by booming CCIs after the crisis (Tammaru *et al.*, 2016). Such office space is suitable for especially micro and small enterprises, which is the most common size of enterprises in Estonia. In 2017, 91.6% of all firms in Estonia were microenterprises: firms with less than 10 employees (EIER, 2018). At the same time, these microenterprises employed 34% of the workforce and gave 29.9% of total value added (EIER, 2018).

In 2021 there are about nine creative hubs in the Northern Tallinn city district which mainly are single buildings or single industrial sites consisting of several buildings converted to office space (Table 2). Creative hubs provide incubation environments, shared office spaces, specific consumption landscapes for both digital and non-digital content enterprises. Two creative hubs located in Northern Tallinn have been studied: Telliskivi Creative City (TCC) and Niine 11.

Table 2. The creative hubs studied for this report

Creative hub	Active as a hub since	Previous use
Telliskivi Creative City	2006	Electrical Engineering Factory

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Niine 11	2011	Textile factory
Tallinn Creative Hub	2013	Power plant
Noblessner	2014	Submarine shipyard
Kopli Incubator	2004	Vocational school building
Volta Quarter	2017	Textile factory
Põhjala Factory	2018	Rubber factory
Krull's Factory	2018[10]	Metal works and heavy machinery factory
Naked Island	2020	Ceramic factory

The studied creative hubs have previously been industrial buildings that are converted to office spaces with an 'unfinished' industrial style (Figure 2). Both are funded and managed with private capital. The aim of these hubs is property management: to rent out 'creative' office space which is supported by bringing together diverse talents, disciplines, and skills across the CCI. Both hubs occupy a single building or territory, but their activities and renters support a more comprehensive range of activities for hosting entrepreneurs, their workers, visitors, and local inhabitants.

Figure 2. The interior of F-hoone restaurant in Telliskivi Creative City. Source: Annika Väiko

The studied creative hubs are not only places to work but form the environment where cultural products are consumed as well as made. These buildings combine offices, restaurants, locations for cultural events

[10] Largely in the planning phase of the regeneration of an industrial site.

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and showrooms, shopping facilities and other services, such as children day-care (Figure 3). The creative hubs provide rental workspaces underneath a single roof which encourage the local community of renters to emerge. TCC and Niine 11 owners choose renters from different sectors and various organisations to form a harmonising set of actors from different professional backgrounds. Niine 11 currently represents a hotspot for visual arts – photographers, architects, designers, and filmmakers – but also hosts a local bank office, some artisan enterprises (such as glass and clay artisans) and a restaurant. TCC consists of ten buildings and consists of various creative enterprises, art galleries, bars and restaurants, non-profit associations, and a theatre.

Figure 3. Outdoor amenities provided by Telliskivi Creative City. Source: Eneli Kindsiko

2.2 Forms of geographical agglomeration of creative hubs and their socio-entrepreneurial networks

2.2.1 Advantages of locating in a creative hub

To understand how enterprises use and benefit from agglomeration in the production and distribution of CC products, we analyse the advantages of locating the CC enterprises in creative hubs. The interview data allows us to make a distinction between two major sets of advantages: **the advantages of a particular environment** and **the advantages of a particular set of entrepreneurs** (the community).

Qualities that are perceived as being the advantages of a **particular environment** of the creative hub and are seen as enabling an inspiring environment for creative production are the following:

1. Non-formal environment and ‘unfinished’ space,
2. Location close to the city centre and local amenities,
3. Rooms with ‘emotions and ego’,

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4. The concept for office space that allows spontaneous contacts and creative 'vibe' (local 'buzz'),
5. The concept that allows the mix of work and social life.

First, the non-formal environment and 'unfinished' space is, according to interviewed informants, the quality that other office buildings located in other parts of the city do not provide. This is strongly linked with the ongoing process of urban revitalisation and gentrification which means that Northern Tallinn represents the area where the existing housing is retrofitted quickly, where old industrial buildings are converted to office space and where active community life and consumption takes place.

> *Do you want to be in a final environment that is very refined and clean, or do you want to be in an evolving environment? /… / A creative entrepreneur wants an evolving environment where (s)he can influence the development and feel it. An acquaintance of mine said that Tallinn is boiling. Everything is changing and not ready yet so that people will be more open to everything that is going on around them if this environment where they are is not fully polished. /… / Here [in the creative hub], somehow this environment is still in development, and it keeps us in some sense in the right vibe that we want.* (Interview No. 1, physical)

Informants argue that such an environment gives inspiration and enables creativity. TCC and Niine 11 have been also flexible in meeting the wishes of renters and have allowed them to design the office, paint it, add additional walls, etc. Both creative hubs have also allowed subtenants, costs to be shared and enjoy shared office space. It has been explained by several informants that the local neighbourhood and creative hubs within the neighbourhood are constantly developed which creates the feeling of an environment which is not 'static':

> *The human mind is here a little like in the zone of discomfort, and it is what helps you to create new things. As a creative person, I knowingly change something every day or I change the way I do my work. I push my back against the wall. /… / It kind of creates an environment of instability where the creation takes place.* (No. 7, in-between digital and physical)

Second, the location close to the city centre and local amenities are the reasons why creative entrepreneurs have chosen to be in a creative hub. This is most characteristic of enterprises that operate physically or have face-to-face contact with clients. Location and local amenities are also mentioned by artists and creatives working as freelancers who can easily select their workplace location and who have flexible work hours. These creatives have explained the kind of locality that the studied hubs and area can provide - short distances accessible by foot or bike, local dining and leisure options, locality in terms of local creative community life.

> *This location is very important to us. We don't have to use a car. Most of my colleagues also work and live in the city centre, so there is a difference whether you drive to an underground car park and then go up to your office with the elevator, or you use an electric scooter or a bicycle or just walk. It's like the logic of mobility behind a creative company: you meet people on the road, and you are part of that local street and local community.* (No. 1, physical)

Third, rooms with 'emotions and ego' are mentioned by many informants who see the interior finishing of creative hubs as suitable for creative production. This is most characteristic of enterprises that operate physically or in both digital and physical forms, such as photographers. These entrepreneurs point to the specific elements that old industrial buildings can provide, such as '*a studio needs a minimum of 4 metres ceiling height, and it does not work if you have a room with a low ceiling and small windows built into the plasterboard box*' (No. 7). Born-digital entrepreneurs, however, value the qualities given by the surrounding and more general location, such as a view to the sea. These entrepreneurs mention, for example, '*here you*

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get a great view of the sea which is quite a great value for an advertising agency to ensure that our employees will enjoy work in our company' (No. 8) and active street life with many dining options.

Fourth, a creative hub is seen as a concept for office space that allows spontaneous contacts and a creative 'vibe'. This argument is also related to the abundance of semi-/public areas and outdoor premises, including shared office space. Creative hubs are seen as 'micro-clusters' where other entrepreneurs can be easily met during the local buzz – the infrequent contacts:

> *When I leave my studio door open, a person enters every 10 minutes. Sometimes I accidentally leave [it open], sometimes knowingly. And then somebody stops by, says hello, and we drink coffee together in the morning. We have very inventive and cool people here [in the creative hub]. /.../ It is a different kind of house where locals [entrepreneurs] talk more with each other than anywhere else. And also, our collaborations have emerged in this way that we are familiar with each other and then you ask someone when you urgently need something.* (No. 7, in-between digital and physical)

The opportunity to meet other creative entrepreneurs – even if it is not used often in practice – is argued to be important by mostly smaller physical operation enterprises that have local products and services. An interesting result is the fact that spontaneous contacts are also valued by entrepreneurs who mainly sell digital products.

Fifth, a creative hub is seen as a concept that allows the mix of work and social life. It has been argued that the quality of place is related to economic development and the behaviour of the creative workforce – the talents – who tend to choose where they want to live and work (Florida, 2005). The interview data confirms that creatives, artists, designers, and makers highly value the quality of a place regarding social life amenities, such as various events, happenings, formal and informal gatherings:

> *The concept of the house is to provide all you need – not just office space – and I think that the owners [of the hub] also make a great effort to bring together various services. There are exhibitions, you can play table tennis, sit on the comfortable sofas and, among other things, there is always something going on in the area. You can very conveniently end your working day and go to a museum or concert or somewhere to enjoy your evening. This is definitely not a usual office building in a commercial tower where you work in a sterile environment.* (No. 2, born-digital)

The mix of work and social life also enables spontaneous contacts and breeds a sense of community.

> *A creative hub helps to create a community of creative entrepreneurs. When you work there, you also spend your free time there. Whether you have a lunch break in the restaurant or you visit a bar in the evening, you always find some acquaintance there or get familiar with new people. It kind of bonds when you meet people and you have a common 'starter' for a conversation: oh, you work in the house next door and what do you do?* (No. 9, in-between digital and physical)

Last, but not least, informants have confirmed a creative hub to have the extra quality of place when compared with ordinary office space which offers recreational facilities, arts and entertainment, lifestyle-oriented retail, and shopping options, as well as authenticity, creativity, and tolerance. This argument is used by all informants no matter whether they have a digital or non-digital way of operation, digital or non-digital products or local or international scope.

Qualities that are perceived as being the advantages of a **particular set of entrepreneurs** locating in the hub (the community), and are seen as enabling a productive environment for creative production are the following:

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1. Access to tacit knowledge, mentoring and inspiration,
2. Exchange of information,
3. Sense of community/sense of belonging.

First, access to tacit knowledge, mentoring and inspiration are the major advantages informants consider to be gained by locating the enterprise in a creative hub. Interviewed informants mean mostly other entrepreneurs locating in a creative hub from whom such qualities can be achieved. A creative hub is seen as a place where people from different backgrounds can meet, discuss, develop and implement new ideas:

> *Everyone [in the hub] is very open to helping each other. Although the help is not so often asked, if you should need it, it is potentially there. And it is good to know that. /.../ It is difficult to put into words but I think people here are very creative and at the same time very friendly.* (No. 2, born-digital)

Creative hubs can theoretically host enterprises from one field or compose a range of entrepreneurs from different fields. In the case of TCC and Niine 11, only creative content enterprises and non-profit associations are knowingly selected from different fields in order to create a local community of creative enterprises. This means that in TCC, around 1,500 creatives meet each other occasionally which complements the collaboration networks that exist between professional contacts. This set of enterprises is supported by restaurants with often matching creativity in their interior design, and sport and leisure facilities (e.g., theatre) and those providing support services, such as children day-care.

Tacit knowledge and mentoring often take place within spontaneous contacts when people meet each other in the hub restaurants, yard area, corridors, etc. Some informants, mostly artists, photographers and those working in fields where a unique or innovative result is produced, claim that they use random visits to familiar neighbouring companies to get inspiration:

> *A movie studio is located close to me [within a single building based creative hub]] where one movie director is a very good friend of mine. I often go there to watch sets and get inspiration. And right next door is the firm which produces commercials. Sometimes when you're in trouble with some thoughts [how to solve some issue or need some source for inspiration], you drink coffee with your neighbours and just collect ideas about what to use in your own work. And you will find inspiration.* (No. 7, in-between digital and physical)

The tacit knowledge, mentoring and inspiration advantages are mostly mentioned by micro and small enterprises and starting enterprises that would like to locate in an environment where they have (at least potentially) access to specialist services, support to help develop projects and their enterprises. Another pattern characteristic of the interviewed entrepreneurs is that such advantages are used mainly by those entrepreneurs who operate physically or partly physically. In both, creative hubs there exist plenty of born-digital enterprises that – according to the interview data – have not shared their knowledge, advice, or any other form of support to local enterprises. Although TCC and Niine 11 offer shared facilities for organising events and help to spread information with their communication channels, these creative hubs neither provide funding, sponsorship, training, nor advice for local creative entrepreneurs as a standardised service.

Second, creative hubs enable the exchange of information between local creatives, artists, designers, and makers. Some certain key creative enterprises – seen as 'trend-makers' – lead the discussions and new trends in local CCI, and being located close to them is seen as having a spill over effect in terms of being informed in a timely manner and being 'in the heart of where the progress and innovation have been made':

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> *There are particularly strong influencers, such as the Fotografiska Museum or the Dokfoto Centre [names of local creative enterprises], which are actually right next door. And definitely, the events that take place here, such as a style market or a street food festival, or some other important performances. All of this exudes creativity or slightly different, more open, freethinking, newer ideas. /.../ If we were somewhere else in Northern Tallinn and not in the hotspot of these events [not in the hub], we would get less of this information and know less about the recent trends and innovations.* (No. 9, in-between digital and physical)

The communication, however, between creative hubs and creatives seems to take place in 'old-fashioned' ways through emails, public message boards and walls full of advertisements and flyers. TCC also has a Facebook group for renters, which allows the renters to share information and collaborate.

Third, creative hubs represent an environment for the empowerment of a sense of community and a sense of belonging. The component of a sense of community has also been the key explanation in recent gentrification studies that reveal the revitalisation of community life could be seen as a trigger for new residents to move in gentrifying areas (Pastak and Kährik, 2021). The results reveal that entrepreneurs and creatives locating in a creative hub feel a sense of community and belonging to 'something that is more than just a workspace':

> *It's like a bit of a family feeling. You enter the cafe in the morning and the waiter makes you have a coffee, because (s)he knows what you are going to buy. Or that the vendors of the shops or owners of local businesses will say hello to you in the morning. Also, the cleaning lady says hello in the morning. It's like you don't go to work but you'll go to a community.* (No. 5, born-digital)

The informal and un-finished concept of hubs has also attracted a certain type of CCI, which are seen as more down-to-earth or bohemian which helps to bond similar-minded people:

> *There aren't many A-class companies here, so it's still a bit of a bohemian type of entrepreneurial community. Well, some IT companies there are here who employ top professionals, but these are also the kind of such young people who walk in the corridor just with the slippers. It is just not a refined environment you'll meet in some 'tower plaza'. Which I think is okay. The city is full of A-class offices, but a bohemian type of entrepreneur wants to come here.* (No. 1, physical)

The studied creative hubs form communities of like-minded people from mainly creative fields who share common beliefs and a common lifestyle. The creative workforce has been characterised by a high valuation of the quality of place, which means that they aim to get more from a location and workspace than the traditional understanding of an office space defines. Creating a shared sense of community and uniqueness, which the creative employees want to locate and feel proud to be a part of, helps to initiate innovation theoretically. However, it can also be seen that contacts are more frequent between micro and freelancer types of entrepreneurs and those operating their enterprise in more physical ways and who have physical products. The next part of the analyses of physical agglomeration aims to reveal which of these advantages have led to professional and non-professional cooperation between the inhabitants of a hub and how.

2.2.2 Social and entrepreneurial contacts and networks in creative hubs

Today's creative entrepreneur's social and professional networks are intertwined. Digital ways of operation and online communication mean fewer physical contacts, but as previous studies have shown even the most 'hi-tech' creative entrepreneurs benefit when companies work in physical proximity.

Three types of social and entrepreneurial contacts characteristic to location in a creative hub are discovered by the analysis of interview data:

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1. Everyday communication between entrepreneurs in the Facebook group of the hub,
2. Leisure time and off-hour contacts,
3. Hub-based collaboration networks.

First, everyday communication between renters in the Facebook group of the hub is the formal way of how the creative hub promotes the communication between its renters. This group mostly engages in casual information: exchange of information about local social events, exhibitions, happenings, the new product range in local shops, everyday cooperation calls, vacant positions, etc. The main channel for information change is the Facebook group for renters which is established by the owner of TCC. Both creative hubs frequently mail information about events and the development of the hub to renters.

> *There is a Facebook group meant for entrepreneurs and creatives who work in Telliskivi Creative City. And people there quite often ask questions like I have something to give away – would anyone be interested? Or I have left home my laptop charger – could anyone lend one? It is cooperation but more a casual type.* (No. 2, born-digital)

Nevertheless, virtual networks are not related to the location in the hub but are strongly professionalised and depend on the enterprise: an interior design company has a forum where to spread internationally information relevant to this narrow field, advertising companies have their mailing list which includes Estonian companies active in this field, etc. **The first key result coming from the interview data analysis is that physical co-location and virtual everyday communication between the inhabitants of the hub do not involve strong cooperation networks but is aimed at sharing rather casual information.**

Second, leisure time and off-hour contacts take place because creative entrepreneurs also spend their leisure time in the hubs and form a crucial part of informal intra-hub contacts. For creative entrepreneurs and creative individuals working in CCI, the possibility to visit local restaurants, bars, other companies' offices or parties and events arranged locally forms an important reason why to locate in the creative hub.

> *The sense of community is pretty strong in this house. We've had house parties. It started like this: we have a big restaurant downstairs where we always meet random people at lunch which builds such a sense of community in the long run. The restaurant has an outdoor terrace, where some people stayed longer after work in the evening and enjoyed a glass of wine. It was pretty nice and sort of different. The other 'unifier' was the smoking room which initiated a phenomenon of meeting in the smoking room. If you have all these shared spaces – corridors, atriums, restaurant, smoking room – it will facilitate social contacts with others. Meeting other people is made very easy.* (No. 1, physical)

TCC also promotes non-official and non-professional contacts by organising 'open door' events when its renters can visit each other. Also, morning training for free has been organised by the hub to provide and enable shared social and sports activities. It can be also seen that consumption and production in CCI are tightly related: creatives, artists, designers, and makers often consume the leisure attractions and services that are produced in the same hub. In general, both hubs provide a small-scale clustering of retail space, creative studios, leisure, and workspace that bond creatives, customers, and visitors from a variety of creative disciplines. This sets the scene for a dynamic exchange of ideas and culture only in a physical environment and indicates that remarkably fewer contacts take place between those entrepreneurs who operate their enterprise physically and those who operate digitally.

Third, hub-based collaboration networks highlight some examples from the professional collaboration that takes place because the entrepreneurs who locate in the hub know each other or desire to cooperate with

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partners from the same hub. Collaboration identified is both one-time based on spontaneous need and project based.

> *This cooperation may not always be like cooperation but can also be cooperation – let's say such a solution or contact made in the corridor. Something like this that my neighbours know that we have an interior design firm here and we know that there is a bank. Once they asked and we made an interior design for their rooms some time ago.* (No. 1, physical)

Such a professional collaboration – although often one-time or project-based – has been often the result of previous physical social contact and marks the ties that are established in leisure time contacts.

> *We had an EXPO project, too large for a single small company so to speak, and a team was assembled from our house to apply for it. It was possible because there are about five to six architectural offices here. This idea came again from the smoking room. And we got this project! We later also did some smaller jobs together. /… / Currently, there is a photo studio here, with which we have made some cooperation. They have photographed our interiors and the products we have designed.* (No. 1, physical)

Collaboration networks are stronger where more frequent contacts take place, such as in shared offices, and between those who work in a related or same field.

> *[Whether there can be some cooperation] depends largely on which organisations are involved. I think that the NGOs that work in Telliskivi [creative hub] are close and intertwined. Especially those that rent premises in the shared office meant for NGOs. There are about a total of eight NGOs that definitely communicate with each other. And some cooperation takes place between design and audio-video companies because they have more in common and they locate closely.* (No. 2, born-digital)

The second key result is that there have been less frequent (a) cross-disciplinary and (b) in-between digital and physical patterns of operation professional collaborations and those collaborations rarely include needed support in changing the enterprise towards digital modes of operation, advice in web design, IT-services, legal issues on how to protect the IPR, etc. This means that during the fast need to digitalise the enterprise, the local networks of cooperation are seldom used to get advice and support in going digital and the advantages of physical co-location have not helped the creative entrepreneurs before or during the pandemic.

To conclude, creative hubs provide a favourable setting for micro and small-sized creative enterprises. Their main influence is to enable, rather than force, innovation, and collaboration. No strong and lasting professional collaborations between creative enterprises located in the studied hubs were identified and thus, it remains unclear which strategies and changes in the patterns of operation of creative enterprises the COVID-19 pandemic might bring. The next chapter studies the impact of digitalisation and the rapid need to digitalise the enterprises for creative entrepreneurs locating in creative hubs and enjoying physical co-location.

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3. Digitalisation of creative industries

3.1 Changes in the value chain

Since the data collection took place during the pandemic, the reflections on the work of interviewees are greatly influenced by COVID-19 topics. As previous studies have shown, digitalisation started already before the pandemic and the creative industries have different business models depending on the varying degrees of digitalisation – more traditional areas are characterised by a rather linear value chain whereas the digitalised culture creative enterprises have a more complex and dynamic relationship between creators, distributors, service providers and consumers (Ahvenniemi *et al.*, 2014: 168–169). For the enterprises in the sample of Northern Tallinn, the main response to the pandemic has been a higher digitalisation of the value chain.

> *Many outputs for the creative enterprises are digital already, all traditional markets and stores rather disappear and will be displaced by the different kinds of pop-up events. Every business operation moves into the web environment, internet shops, and parcel machines. All you need – to sell your product – is to guarantee that it looks good on the internet.* (No. 1, physical)

> *I was thinking that COVID-19 affects us more. But no, … we were well prepared, we were already on the digital path.* (No. 6, in-between digital and physical)

The CCI enterprises situated in the creative hubs in Northern Tallinn face challenges in digitalising different steps of their production and operating processes (Figure 4).

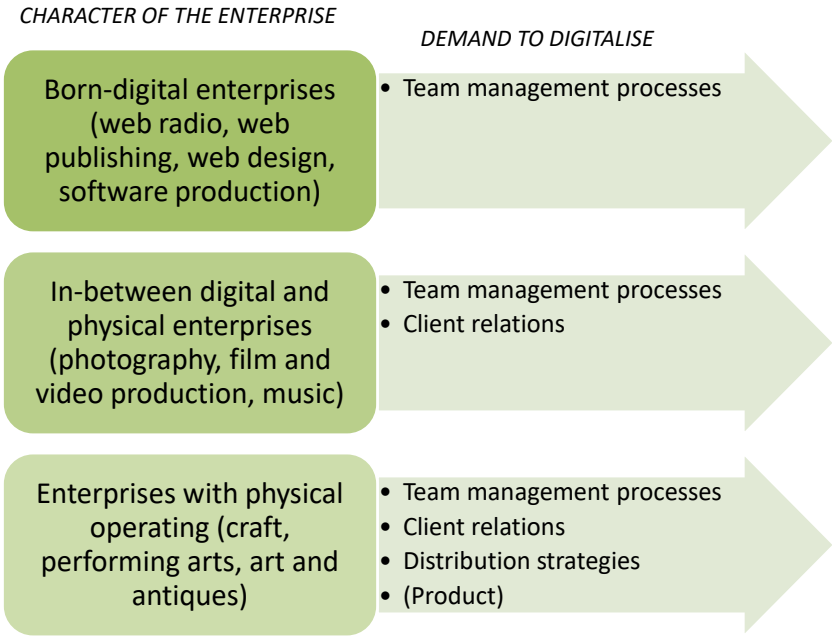

Figure 4. Demands to digitalise the production process depending on the character of the creative enterprise before the COVID-19 pandemic

We explain the demands to digitalise the work processes for the different clusters of enterprises in more detail in the next text box which characterises the main challenges for entrepreneurs.

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- **Born-digital** CCI enterprises (like web radio, web publishing, web design or software production), i.e., the enterprises with digital management systems, producing digital products or offering digital services have advantages to digitalise their activities even more. It has been easier to adapt with the physical restrictions for the creators whose activities cross the geographical locations' borders – they already have part of their networks operating virtually. The interviewees in the group of born-digital enterprises mainly see the changes in the ways how to manage their team – to use more web meetings. In the digital form, the collaboration takes more time and effort, the interviewees say.
- The interviewees in the group of enterprises **operating in both digital and physical forms** (like film and video, music production, photography) see a need to find solutions besides the team management issues in the client relations and production process as well. Their production chain until the pandemic is built on the availability of physical living and non-living objects (furniture, pets, actors, musicians, models etc.); they had to change the production process considering the restrictions – e.g., use more distant cameras and microphones, use instead of living objects non-living objects. They needed to find creative solutions mainly for including physical objects into their production process. For client communication, they started to use digital communication means. Interviewees say that the main character of their activity did not change.
- In the group of enterprises with only **physical operation** (like performing arts, crafts, arts and antiques), the interviewees see themselves as the most challenged from all the chains of production – starting with the products (that usually are not readily suitable for digitalisation), distribution channels and client and team management processes. Some enterprises made a break in their activity (at least, at the beginning of the COVID-19 crisis from March 2020) or started to find solutions for transforming the physical product/service into a digital form.

Thus, the **digitalisation** can take place in the different levels of the production chain for the creative entrepreneurs in agglomerated locations:

a) It can take place when the physical contacts is replaced by digital communication – thus, it takes place in the dimension of **team building and management**. The digitalisation helps to reduce travel and other team-building costs. It has the potential to widen the team-building capacities geographically, enables building multicultural teams and inclusion of cooperation partners from wider areas.

b) Digitalisation can facilitate relations with the clients – digital channels have a wider potential to spread the messages about the products and services, it enables the use of digital channels for **marketing and sale**.

c) Digitalisation can cause changes in the **character of products or services** – physical performance in the theatre house gets different characters when it will be streamed in the digital channels.

In all cases the benefits from the location in the creative hubs to digitise their enterprise did not play a role for the CCI entrepreneurs, our interviewees said. The entrepreneurs activated their social ties outside the agglomerated area to find solutions for re-organising or re-designing their business activity.

3.2 Barriers and enablers in digitalisation

The COVID-19 pandemic has shown that creative entrepreneurs are due to their small size rather flexible and easily adapt to changing circumstances. Even in more conservative areas (like performing arts, stand-up comedy scenes) the creators are more open-minded and try to find new ways to survive the crisis.

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> *We have changed a lot. Two years ago, we rejected many proposals. We had clear principles of what we do and what we do not. Today, we have more flexibility, we do a lot more things, we provide a higher variety of services. We have a new pricing policy, more openness towards smaller clients.* (No. 13, physical)

The changes in the clients' composition have a great impact on the creative entrepreneurs. During the different waves of COVID-19, the restaurants, theatre houses and cinemas were closed down, the tourism sector faced significant losses, and some clients or partners even stopped their enterprise. As a result, the CC enterprises changed their entrepreneurship patterns too.

> *We were shocked during the first wave of the pandemic. We had a 70 per cent decrease in revenues. But it is back now. One of our biggest clients is a huge hotel. They have changed their business model too.* (No. 8, born-digital)

> *Of course, it depends on what is in your client portfolio. If you have a shipping or aviation company as a client, then you are facing difficulties. But if your clients are from retail sale or houseware providers – they are ruling now, their revenues are in the sky. Due to the changes in the business of our clients we have changed our services – we have more orders for branding and designing and less for pure advertising now.* (No. 6, in-between digital and physical)

> *We re-profiled ourselves overnight. Our development director was talking about the idea to go digital for several years already, but there was not the demand to do it. And then … we have a pandemic, and everyone must stay at home. We have got our chance.* (No. 5, born-digital)

The interviewees say that the state institutions or organisations working based on a fixed budget are more stable clients and partners and enable the ongoing economic activity for the CC enterprises during the lockdown periods (No. 1). Other entrepreneurs needed to find new partners or re-design their business models – like in the field of photography and renting the studio and equipment (No. 7). Sometimes surprisingly for them, the creators found new cooperation partners. Interviewees from music, film and theatre sectors say that when the difficulties of the sector were discussed in the media and the public realised that musicians, theatre actors and other performers can have difficulties, the IT developers contacted them to help find new solutions for contacts with audiences (Nos. 10, 11).

> *I got many calls from different start-up firms. They asked how they could help. Is there any digital solution proper for musicians? I perceive that there is a general will to help artists to make money.* (No. 10, in-between digital and physical)

Nevertheless, only in the fields of music and performing arts are the new contacts mentioned. In other fields, the interviewees mention laying on the cooperation with the existing network of partners or even rekindling relationships with old friends acting in other fields (old classmate as a lawyer, state official, politician, etc.) to ask for some specific expertise from them.

All the interviewed entrepreneurs confirmed that the COVID-19 pandemic boosted digitalisation in unprecedented ways. Even if they had some break in their activity at the very beginning of the pandemic, they started actively to find ways to survive (No. 7). They built e-shops, launched the products outside the former activity area, found e-advertising strategies (No. 8) – some of them re-profiled their activity starting to educate the e-educators (No. 5). The development of new distribution platforms started. The entrepreneurs label it as an 'exponential growth' in digital solutions (Nos. 1, 5, 9, 10). It has been a challenge for the creative fields that were not used to digital distribution. The interviewees perceive it as a wider issue, not only nationwide. In internationally networked sectors, like the film industry, new

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distribution principles need to be agreed upon globally while the former territorial distribution strategies do not work.

> *The distribution of the theatre production has been growing by leaps and bounds last year. But it is not easy to get the rights to show the play. Not everybody agrees that their creation will be available on the web. We are dealing with it. But it is a global problem, not only Estonian how to develop safe dissemination platforms.* (No. 11, physical)

Some products that were already established, but the clients were not willing to use them, have got a boost to digitalise, e.g., e-consultation, usage of some specific software for streaming events and performances (Nos. 2, 5), or team meetings (No. 8). The interviewees claimed the general openness of the partners and clients for new solutions; that was not always the case before the pandemic, they said.

> *We were technologically prepared to continue our work in digital channels.* (No. 9, in-between digital and physical)

> *The crisis brought with it good solutions. After the crisis we can continue to use them, the solutions can operate in a hybrid form. We will have real concerts and at the same time, we can sell cheaper tickets to follow the concert on the web.* (No. 10, in-between digital and physical)

> *In March, when our clients started to postpone their work, I persuaded the clients. I persuaded the clients that e-teaching is not a Skype call. It is possible to make very active and inclusive teaching that is based on interaction. The barrier for that was in the heads of people. I was facing the fears of people, but these are smaller now.* (No. 5, born-digital)

The creators themselves had an open attitude towards innovation and broadened their activities, they started to react positively to the proposals they rejected formerly – like participation in audio-visual projects, in advertising campaigns (Nos. 7, 10), or even agreeing with the performances for closed private events (No. 13). As an interviewee summarises, 'the virtual world was there, but we weren't aware of it' (No. 15).

> *Ten years ago, we were ahead of time with our idea of the digital film festival; actually, we were totally utopian this time. I was searching for support and money for the idea in Estonia, from the Ministry of Culture and the Estonian government, or even from other enterprises; and they looked at me like I am a fool. We applied with the same project this year. All who read it, say 'Yes! Great idea! Of course, we can support it.' It is interesting how the readiness of society has grown. Society thinks more freely digitally now.* (No. 15, in-between digital and physical)

Nevertheless, interviewees admit that some activities are not possible to digitalise, like producing videos (No. 8), renting a studio and equipment, and photographing (No. 7); it is difficult to get expected creative results from digital brainstorming (Nos. 5, 9). For broadening the partnership relations, the digital environment has a few advantages; the interviewees say that real interaction is needed to build trust relations (Nos. 2, 5). Creative cultural innovation benefits from non-virtual interaction – *'physical encounters give an extra energy to the participants'* (No. 5). The same is true about the performer-audience relationships.

> *Many audience members say that the web performance cannot replace the real performance in the theatre house. They do not like to waste their time on the web. Theatres hope to continue traditionally again.* (No. 11, physical)

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> *Even now, the mentality of people does not allow them to buy the ticket to the concert on their computers or TV sets for the same price as the ticket for the physical concert.* (No. 10, in-between digital and physical)

By analysing the constraints and enablers to the transformations of the entrepreneurship patterns, we can sum them up according to the PESTL framework (Aguilar, 1967; Nandonde, 2019) – i.e., to distinguish political, economic, social-cultural, technological, and legal macro-environmental factors mentioned in the interviews (see Table 3). We go through the PESTL framework in more detail in subchapter 3.3 below.

Table 3. Constraints and enablers to the innovation perceived by the agglomerated CCI entrepreneurs in the sample

	P Political	E Economic	S Social-cultural	T Technological	L Legal
CONSTRAINTS	Slow reactions to the transformations needed in a crisis situation	Monopolist global competitors; conservative attitudes of partners	Conservative attitude of consumers and their habitual consumption patterns	Low integration of different technological solutions	Existing IP regimes created for non-digital world; too complicated and too expensive IP systems
ENABLERS	National governments as stable client/ partner who is capable to invest in a crisis situation	Cooperation with the monopolist platforms who have access to the consumers	Need for the culture products for the mental well-being of the consumers	Rapid developments based on the specific needs of CCI	Grey zones in regulations of digital IP, enables to experiment and take risks

For the development of the CC sector, the supportive role of partners and clients is perceived as very important. The established partners/clients that are not influenced by the economic fluctuations (like the state and other institutions that work based on a pre-fixed budget) has an ambivalent role for the CC enterprises. On the one hand, their orders have been more stable and enabled the CC enterprises to survive during economic fluctuations, and to retain the core activities; in parallel, a CC enterprise is able to develop new activities – services and products (Nos. 1, 13). On the other hand, the barrier to development is that creators stay in their comfort zone when they have stable partners – they do not see the need to change or do not find enough resources for innovating.

> *Estonian theatre is well-financed. We have numerous visitors; they visit a lot of theatres. In this sense, we live like in a bubble. Nevertheless, when someone likes to develop or to go abroad, the opportunities are there.* (No. 11, physical)

Innovation may be hindered due to the lack of information, the interviewees say. Proper and exhaustive knowledge, including statistics, would be needed to innovate the value chain. Other interviewees tell that it is important to design the proper supporting mechanisms for the sector as a whole. The exact targeting of supporting mechanisms is perceived as highly relevant for the culture and creative enterprises producing

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their products in smaller and non-dominant languages (No. 10). In a community of creators of a specific field expert knowledge can be missing, and specific knowledge-sharing contexts are missing; the community is small and there is a need for knowledge exchanges with the world community in specific areas.

> *We have one Facebook discussion group in Estonia that discusses these topics. We lack a source to get proper information. It is necessary to be active in searching for information. Mostly outside of Estonia and in English usually.* (No. 5, born-digital)

> *Our artists go over the ocean [to the U.S.A.] to educate themselves.* (No. 13, physical)

> *One has to have the eyes open, what is functioning in the world and what is not.* (No. 9, in-between digital and physical)

An interviewee says that the role to educate the creators should be taken by the state institutions (No. 15) since only the state has enough resources to develop specific programmes to develop the specific competencies. Some enterprises have been able to invest in IT teams, to build a new department in their organisation (No. 15), but it is rather exceptional among the studied enterprises.

During the crisis, the shortcomings of existing technologies are perceived. Technical solutions designed especially for the needs of creators are told to be missing or not integrated with each other (No. 1). For example, an interviewee from the film sector claims that the safe technical solutions are missing how to sell CCI content on the internet; *'even the biggest providers (like Netflix) are not able to achieve that every user pays for the content they are consuming'* (No 15). Smaller ones face even more difficulties in disseminating their creative content. Some interviewees, representing the born-digital enterprises, rather stress the need to experiment and find their own, separate solutions, *'when one has clear principles to sell their content, the cooperation with monopolistic platforms do not enable enough sales to cover the platforms' usage costs'* (No 13). The interviewees perceive the innovation as rapid, but the business models of creators do not develop at the same speed – the innovation discrepancy can be found; the industry is global, but the dissemination of culture products can be limited to the specific areas/societies/language communities (No. 10).

> *Estonian musicians tell us that they do not sell offline anymore; they try to get their incomes from digital platforms. But we need to think about the scale. If an author has a million views, they get about 300 euros for that. But we have a million inhabitants in Estonia and if an artist sings in Estonian, it is really hard to get a million views. It is a business for scale, not meant for smaller ones.* (No. 10, in-between digital and physical)

To sum up, the interviewed entrepreneurs perceive several problems related to political, economic, social, technological, and legal factors as barriers to innovation. As the most important they mention: In the sectors of film and performing arts new distribution principles need to be agreed upon globally, former territorial distribution strategies do not work (No. 15); the clients and partners should be more open towards innovations (No. 13), currently they are afraid of innovation and prefer habitual solutions (Nos. 1, 5); clients (audience) are not used to digital concerts, they prefer physical performances (No. 10). Issues on how to control the product's web life/trajectories is a problem everywhere in the world – how to make the web environments/solutions not-hackable (No. 15); copyright protection in digital environments is extremely expensive (No. 15).

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3.3 Support needed in the context of accelerating digitalisation

This part will discuss support measures needed in the context of accelerating digitalisation. We will structure these measures by applying PESTL framework, where P signposts political, E economic aspects, S social-cultural, T technological, and L legal aspects.

Political. Especially for the CC enterprises operating in geographically or culturally limited contexts, knowledge-sharing would be beneficial to innovate their enterprise. The agglomeration of diverse enterprises and contacts between CC entrepreneurs enables the entrepreneurs to 'think outside of the box'. As a limitation, the agglomeration has less impact on the solutions of specific area-related problems – there would be good examples and deep insights of enterprises from similar specific problems from all over the world needed. Thus, EU-supported cross-border cooperation could be facilitated or made accessible for many more entrepreneurs to support the innovation of the CC sector.

Economic. In the CCI sector where the enterprises are rather smaller ones, the ability to adapt and change is high. Based on their former networked relations between creators from different CCI fields or the same locations, entrepreneurs and creators can easily leave the firm or declare the end of their activity and start a new one. The micro and small-sized enterprises transform their entrepreneurship patterns without significant complications; this deserves support and preservation because it enables diversity in entrepreneurship patterns and value chains.

Social-cultural. Whereas the COVID-19 pandemic rather boosted the innovation in the CC sector generally, the more conservative cultural fields perceived it as an excellent opportunity to experiment with changes. The pandemic changed the general atmosphere, supported the open-mindedness of different actors and the experiments were possible to be realised. The physical proximity, however, did not play a significant role in innovation even in the agglomerated area. The entrepreneurs made use of the existing trans-sectoral cooperation or derived impulses for innovation from their personal social networks. This refers to the ongoing need to support not only sector-based networking of entrepreneurs but also more broadly.

Technological. The agglomerated CC enterprises are micro and small-sized and lack the resources to invest in technological innovation. The dissemination and distribution platforms are designed in the principles of economies of scale and favour big enterprises – there is asymmetry of size (Kindsiko *et al.*, forthcoming) that threatens cultural diversity.

Legal. For many CC enterprises, the pandemic brought a higher dependency on digital communication and dissemination platforms. The regulations and norms in the CCI (including the IP), however, do not develop at the same speed as the need for re-design the enterprise[11]; in the meantime, the creators work in the grey area where their business activities can depend highly on their negotiating power and already existing authority in the field. Negotiations and discovering new rules for every single case takes a lot of resources that can come at the cost of their main activity. As Mahr and Dickel (2020) conclude, based on the analysis of consequences of the pandemic in the medical sector, 'it seems that the COVID-19 crisis could become a catalyst for a major shift in how we understand IP rights and the ways we distribute and produce things in the future' (Mahr and Dickel, 2020: 716).

[11] The interim report No 4.5 will give more detailed insights into the matters concerning IP protection.

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3.4 The effect of digitalisation and agglomeration on the preservation or growth of cultural diversity

There are multiple perspectives on cultural diversity and its relationship with entrepreneurship. In this interim report, we consider cultural diversity to be characterised by the presence of different creative and cultural enterprises, employing either digital or physical forms of operation, or both. Cultural diversity in this sense can be viewed as the diversity of entrepreneurship patterns or organisational forms, as the diversity of values entrepreneurs carry, or as the diversity of cultural creative products. Interviews provide grounds for concluding that there has been preservation or even growth in entrepreneurship patterns and in products in the contexts of creative hubs. At the same time, value diversity has been latent in the interviews and is thus visible only to a small extent.

Our interviews revealed that creative hubs select renters to achieve a diverse and 'matching' set of enterprises. They also consider the choices that entrepreneurs make regarding their locations and consider that these depend on the advantages that a hub can provide from the perspective of entrepreneurs. This means that the cultural diversity of such hubs depends largely on hub management but also on how the creative entrepreneurs 'feel' in the local entrepreneurship community or which CC enterprises apply to be within the hub. The cultural diversity of practice fields and organisational forms is important for all three types of enterprises:

> *Certainly, it is important. Perhaps not in professional matters but still. We have a well-developed network, we have been operating for so long, we have worked with many different partners. Often they are not from Telliskivi [CC]. When I choose my partner, the aspect of whether (s)he is in Telliskivi is like a secondary criterion. Rather, it is how well someone does something. /.../ But it can be a contributing factor to the fact that my employees want to work here, want to spend their off-hours here, and want to come here. /.../ And the main reason for that is that we can find a very diverse range of businesses out of here.* (No. 9, in-between digital and physical)

While creative hubs host both, for-profit enterprises and non-profit associations, the latter are considered to play a significant role in enlivening the atmosphere for innovation, creativity and 'crazy ideas'. Non-profit associations that promote non-mainstream ideas contribute to the innovation and even to the value transformations of entrepreneurs in the hub. For example, feminist ideas, the world clean up movement, developmental programs, world equality and equity movements, and the warning voices about climate change have a valuable and appreciative context for growth in a creative hub.

> *We have our kindred spirits here in TCC.* (No. 3, born-digital)

> *Entrepreneurs from one firm in TCC said that they are really happy that we are here now. That there was no life before us. Sometimes they call us for dinner for free.* (No. 4, born-digital)

> *We help to network creativity and business. We network creators and start-ups who could realize the creators' ideas. We get frequent questions in the style of 'Do you know someone who makes this or that?' We manage a broad network of very different interests, ideas, and values.* (No. 12, physical)

Our results show that creative hubs have an important role in attracting and bringing together a diverse set of creative enterprises which can be seen as a source for workforce diversity. This is done through engaging different types of CC enterprises. The cultural diversity that is cross-sectoral, specialisation crossing and able to engage both digital content and physical content focused CC enterprises in a hub is an important

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precondition for wider access to cultural and creative products in local area and beyond[12]. Different enterprises from different kinds of fields help to ensure that we see the provision of different CC products and services, and possibly the satisfaction of more consumers.

> *If we look at the creative city more broadly, it is simply a building that accommodates creative entrepreneurs. At the same time, it is not just 1+1=2 but this is a business community that gives extra value for entrepreneurs and also visitors. /.../ Very different organizations that have come together. This is an opportunity to experience such diversity in professional terms - there is quite a lot of such intertwining, mixing on different cultures and ways how things are done. And just in a very small environment. But if we think about how many different goods and services can be found out of here, this place is like a city within a city or market of creative [and cultural] goods.* (No. 2, born-digital)

Our research also shows that the COVID-19 pandemic caused almost an explosion of competitive attempts to create software and platform solutions to respond better to the specific needs of creative industries (such as solutions for the dissemination of traditional theatre performances, solutions that help music producers and composers, etc.). As a result, we see that the pandemic has led to the growing diversity in creative products. However, we need to consider that the study was conducted at a time when the entrepreneurs were thinking about their first reactions to the COVID-19 pandemic and may not have implemented the plans across the variety of entrepreneurship patterns.

On the other hand, our results do not show that the digital and physical creative inputs would be combined in creative hubs. Our results rather confirm that there is an observable division between physical and digital-oriented entrepreneurship patterns. Physical content CC enterprises tend to be less ready to digitalise their enterprise and as a result, would be more vulnerable regarding the impact from decreased turnover, reduced marketing opportunities for their products and the difficulties in transforming the chain of production. Some well-established fields of culture (like theatre) are perceived sometimes as more conservative and need of more time or nudging to innovate. In the case of micro- and small-size enterprises, one also needs to consider the likely lack of necessary resources for digital innovation, due to the high price of developing digital solutions. Those enterprises that lag in the digitalisation process would be unlikely to make a “leap” in digitalisation without outside support.

4. Conclusions

This interim report addressed the changing entrepreneurship patterns of agglomerated CC enterprises located in creative hubs of gentrifying urban neighbourhoods. The main change in entrepreneurship patterns expected that is supported by the literature is towards more digital ways of operation. To study the digitalisation patterns, entrepreneurs were studied who are 1) born-digital, 2) operating in both digital and physical forms, and 3) operating only in a physical form. Analysis conducted provides the scoping input for WP4 since one of the goals of the reCreating Europe consortium is to understand the changing entrepreneurship patterns in agglomeration and digitalisation of CCIs and the impacts on cultural diversity. The results of this report are transferable to another city and country context because similar patterns of agglomeration of the CCIs prevail in many European cities.

[12] Gentrifying neighbourhoods of Northern Tallinn that host several CC enterprises and also commercial activities have become a destination for tourists who visit local shops, art galleries, restaurants, and cafeterias.

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This interim report has two key contributions. First, the cooperation – that is expected to take place within agglomeration and creative hubs as one form of it – is more unstable and frequent than it has been theoretically considered. And second, the cooperation or the lack of it follows the divide between CC enterprises operating physically and digitally. These could be the key targets for the improvement of digitalisation and cultural diversity in CCIs.

Regarding the first key takeaway, creative hubs provide several advantages and are a favourable setting for micro and small-sized CC enterprises which are in the stage of establishing contacts. The main effect of the hubs is to enable, rather than force, innovation, and collaboration. There cannot be identified strong and lasting collaborations between creative enterprises located in studied hubs. The everyday cooperation is rather explained by informants as episodic and taking place within those enterprises who share an office, are from the same field of activity or is project-based in case of intra-field cooperation (such as between moviemakers, IT-specialists, and artisans). In this case, the exchange of information, access to tacit knowledge, mentoring and inspiration are mostly mentioned as the advantages locating in the hub provides. A large part of the everyday communication between entrepreneurs is about casual information sharing. Enterprises that locate within a hub form a sense of community and local inhabitants feel a sense of belonging which, however, stays on the side of 'fun' and 'buzz' rather than forming into stable cooperation networks.

Regarding the second key takeaway, the divide between physically and digitally operating CC enterprises is visible. Those entrepreneurs interviewed who mainly use face-to-face contacts and provide a physical product or service locate themselves in creative hubs because they reach the sufficient client base of the hub, suitable and easily accessible location for clients, contractors, and business partners outside of the hub, and enjoy the advantages of the local entrepreneurs' community. Those entrepreneurs who mainly operate digitally, however, do not mention particularly client relations and partnerships but state that the working environment is the main reason for locating in a creative hub. Digital enterprises face tough competition for employees and thus must provide a workspace with good quality and extra benefits (such as local events, dining options, creative atmosphere, or view to the sea). Thus, it can be seen that two main explanations of why CC enterprises prefer to agglomerate and locate in creative hubs – the place qualities (see Florida, 2005) and cooperation or the 'buzz' (potential cooperation and tacit modes of knowledge exchange; see Heebels and Van Aalst, 2010) – describe the location choices of CC entrepreneurs: those operating the enterprise physically tend to be attracted by the advantages of buzz and those operating the business digitally tend to be attracted by the advantages that are related to the quality of place.

This divide also exists in the digitalisation of enterprises that have (a) digital products and digital operation, and between those (b) that have physical products and manage the enterprise also physically. Born-digital enterprises have clear advantages to digitalising their activities. They already hold at least a part of their networks and enterprise daily operations virtually. The interviewees in the group of operating in both digital and physical form enterprises saw a need to find solutions besides the team management issues in the client relations and production process as well. Their production chain until the pandemic was built on the availability of physical living and non-living objects (furniture, pets, actors, musicians, models, etc.) and they had to change the production process considering the restrictions: such as change in-firm communication and communication to use the digital communication means. However, the main character of their activity did not change. In the group of enterprises with only physical operations, the interviewees saw themselves as the most challenged and those enterprises also have products that usually are not readily available for digitalising). In this group, some enterprises made a break in their activity during the COVID-19 crisis but slowly started to find solutions for transforming their physical product or service into digital form.

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Annexes

Annex 1. Mini-case Tallinn Black Nights Film Festival

Tallinn Black Nights Film Festival (BNFF) is an annual film festival held since 1997. It is the largest and most authoritative film festival in Northern Europe. BNFF forms an excellent case study of how the physical product or service is rapidly transformed to an online form. Being in a situation when most likely faced decreasing numbers of visitors because of COVID pandemic restrictions, the 2020 festival was rapidly changed and held in a hybrid form with both physical attendance and a partly online programme. This was the kick-off for modernising and digitising the film festival's programme which had stayed the same for a decade to praise the film festival's long traditions. In 2021, BNFF launched an online cinema where films can be watched all year round throughout Estonia's territory (BNFF web page). BNFF represents the change from physical to digital mode of operation documented throughout the interviews. This change has been explained in the interview conducted with the CEO of BNFF, of which an edited excerpt has been added below.

We've been pretty stable and held our programme in very traditional ways. Mostly because of the COVID in 2020 and now [in 2021] we created our online system [to show festival's movies online] that we now develop in order to live our lives both virtually and physically. Until the pandemic [2020], it was easy for us. The IP we came across was the acquisition of film rights. Nothing more. Which is very strictly set, and there is nothing very special to talk about. /… /

But with regard to COVID, it was necessary to change our activities. Not only us, but many others in the world had to think outside the box very quickly. To think about how we can be visible, how we can continue with our business. /… / Working online is new for us. How to protect copyright online? How to protect copyrights of the movies and your festival in a virtual environment? /… / 'Thanks to' COVID we have become aware of this virtual world which actually has many opportunities and is thus kind of imperceptible. There are so many options here. And that brings a lot of issues to solve. I hope there will be no court cases against us. But definitely it was a huge problem that will not be solved fully in a year. /… /

We built the online system first in our minds, with heavy brainstorming, and then step by step each part in detail. We did not use any platform or an easy solution. And copyright was the last thing I thought of at that moment. Rather, everyone was thinking about how this system should be and what we can do to make it great. We started to solve copyright issues somewhere during the festival when it was clear that our tailor-made online system would work at all.

We were actually ready to show the festival online 10+ years ago when we made our first online environment to show films with a large foreign company but then the audience was not ready yet and we did not find support. In the end, this web developer also went bankrupt and we lost all rights to this platform they used /… / We were so ahead of time. In fact, insanely ahead of time. When searching then for co-funding from Estonian companies and asking for support from the Ministry of Culture or at the government level, I was looked at like a fool who came up with a really stupid idea. And if we would have presented this project today, then everything is like wow, yes, of course. It would be very nice if we can get this support now that by the way is already promised. In this sense, it is interesting how society has become ready. It is not just us, but society as a whole that has learned to think digitally. It is a new reality that you can actually do your things digitally – without travelling to Berlin to buy movies. That all can be built in a completely different way.

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Annex 2. Mini-case Comedy Estonia

Comedy Estonia is the most famous stand-up comedy business in Estonia. The company has arranged for over ten years live stand-up events and comedy tours. Also, event management and moderation service are provided while besides stand-up comedy artists it also has an administrative unit with several employees who take care of the event organisation and talent management. Until 2020, Comedy Estonia had mostly organised live events and had not produced many recorded materials. Before the pandemic, the head of Comedy Estonia started to make a podcast. Since the COVID pandemic, many stand-up events were cancelled or postponed, and several other comedy artists also started their own podcasts. This enterprise has gradually reoriented and moderated virtual events and individual online comedy performances. Also, the studio has been built to work online or record. However, the way how this enterprise has been run is still made in large part with face-to-face contacts in the office and their main products – stand-up comedy events – have been slow to change to being provided in an online format. The second wave of the virus still changed the thinking and Comedy Estonia has established a cooperation with a platform that sells their pre-recorded materials.

Presented online, [stand-up] is not really a stand-up. It's still on the computer. /.../ [Artists] do not want to do this because it is very difficult to do. And I know that many other comedians in Estonia do not want to do that either. Latvian stand-up comedy artists share the same view that they don't go virtual, sure not. /.../ After one year of the virus being with us, the first brave ones start to do online stand-up because you just have to earn something. But this is not for everyone. Every artist can't make jokes online.

This [digitisation] is pretty hard for us and we deal with it when we really need to. I mean that this virtual thing was forgotten in the meantime when everything went open in Estonia and everything was fine. During the summer birthdays and big private parties took place where our comedians performed. And in the autumn too. Small audiences, but still the old-fashioned way. Then it was December, we were fully booked and then again everything was closed. For us, there was a wave of cancellations and all the larger conferences were postponed, not to mention the large events that have been postponed for about two years now. /.../ Then we started looking after online solutions again.

If we think about the last few years, we have changed but it is certainly not a 90-degree turn. I hope some conferences stay virtual. But for a stand-up comedy artist, it's very hard to come up with sketches that work for everyone when there's a big international conference and you don't see people, and you do it in front of the camera. You don't know who reacts how.

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Annex 3. Interview guide

Interview questions are divided into two parts – personal interview questions about the interviewees' personal experiences acting as an entrepreneur, and expert interview questions about the interviewees' observations about the field of creative industry generally.

I PERSONAL INTERVIEW QUESTIONS

Questions	Input to the research plan (see D.4.8 Report outline)
Introduction: The interview is a part of a bigger project titled "Rethinking digital copyright law for a culturally diverse, accessible, creative Europe". The interview helps to get an overview about a particular area of the creative industry, the so-called emergence of creative clusters. The interview aims to give input into the analysis of the building of creative networks and analyse the main challenges entrepreneurs face in a digital environment.	
In which field does your company operate?	01
How old is your company? How long have you operated in this geographical location?	01
Why is the Telliskivi Creative City the best location for your company? Is the physical location particularly important for your company? Or would it be possible to operate purely online?	03
Have you cooperated with other companies in this particular geographical area? Have you used the services or other kind of support by the companies in Telliskivi? What kind of cooperation have you done with these companies? Do you have cooperation partners outside of the area?	05, 07, 08
If cooperated with other companies in Telliskivi: -from where did you get support in developing your IT-solutions? Design solutions? Communication activities?	05, 07, 08

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Please evaluate the proportions of digital and physical activities in the operations of your company? Which activities are mainly digital, which mainly physical? Do you use particular digital solutions for your operations? Are you planning on using particular digital solutions? What kind of activities should remain physical?	09, 10, 11
Did you face any difficulties in finding proper digital solutions for your company? Do you miss any digital solution/ digital service, which would help you in your work?	11
Do you follow the developments of other similar companies in their digital services/ solutions? Is there something to implement or to learn?	07, 12
Do you have any experiences using the project money/ support mechanisms from the state/ NGOs/EU to develop the digital solutions/services of your company? Do the supporting mechanisms correlate to the needs the companies in the field of creative industries have?	12, 15
When you are using the digital services/ solutions, how do you take into account your rights as an author on digital platforms? Or do you face any other similar risks/ problems in operating, related to e.g. data protection, privacy, cyber security concerns, piracy etc.?	13, 14
Which regulations have the most impact on your operations? Do you have any experiences in legal disputes/ litigations?	13
How important are intellectual property rights for your company? - Do you have the impression that the regulations are sufficiently comprehensible and clear? If not, do you consider it a problem regarding legislation in general or the problem of regulating this specific field? -Do you see the need for any changes in the regulations? -Do you think that to properly protect intellectual property, there is a need for any other changes (e.g., changes in the cooperation practices etc.)?	13, 14, 15
Has the COVID-19 had an impact on your company and how?	16, 17

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II Questions for EXPERT INTERVIEW

Topic	Questions	
1. Overview about geographical location	**01 – What are the main fields creative entrepreneurs perform in Northern Tallinn [in this geographical location] (sectors, services, products)?**	
	I will now ask general questions about this geographical location and creative industries as such. If you do not have expert knowledge about the questions that I am going to ask, please tell me and we can go on with the next question. It is quite understandable if you haven't ever analysed the questions I am going to ask.	
	If you would try to generalise, what is the field of operation of companies that are acting in this geographical area generally?	
	How many of them are acting in the field of creative industry?	
	02 – What kind of new business models specific to small and micro companies have emerged in the digitalization of creative industries in Northern Tallinn?	
	Have you seen any changes in the field of operation among the companies during the last years?	
	Do you know any new companies / fields of operation in this geographical location? Do you know some innovative/ interesting modes of operation/ cooperation?	
	03 – How is the relation between digital and non-digital businesses changed over time?	
	Is it possible to follow any trend towards greater digitalisation (towards	

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	web services)? (please think about different companies in this geographical location)	
	Is it possible to generalise that the creative industries will be more and more digital (i.e., operate online)? Or is the physical space and direct contact between partners important as well?	
	Could you generalise which kind of companies will become more digital and which kind will remain more traditional?	
2. Local cooperation networks (physical and digital)	**04 – What forms of physical (non-digital) agglomeration of creative businesses can be detected in Northern Tallinn [in this geographical location] (creative hubs, incubation environments, specific consumption landscapes)?** **05 – What kind of social and entrepreneurial networks are distinguishable in the case of creative entrepreneurs of Northern Tallinn [in this geographical location] (networks, forums, platforms, incl. social media platf.)?** **08 – Which creative businesses are networked in the digital market and which are not?**	
	How does it seem, are the companies in this geographical location cooperating closely? Why is it useful to locate here together? Do you know which creative entrepreneurs/ companies are cooperating more than others? What entrepreneurs/ companies are not?	
	Do you know where the clients of these companies are located?	
	Do creative entrepreneurs/ companies belong to some kind of networks? Is it important to be part of some kind of network?	
3. Impact of digitalisation on the creative industries	**09 – What is the impact of digitalization on creative entrepreneurs of Northern Tallinn [this geographical location] and their products/services?** **10 – What are the reasons to start or digitalize a business?** **11 – Which are the direct and indirect barriers in the digitalisation of a business?**	

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	13 – For which businesses is IP protection an important part of the business model? **14 – What experiences do entrepreneurs have with digital piracy?** **15 – Which local policy frameworks and entrepreneurship strategies foster and hinder the digitalization of creative entrepreneurship?** **17 – How have these encounters and networks (Ch.2; e.g. creative hubs and platforms) helped to cope with challenges arisen by digitalization and the COVID-19 crisis?**
	Answers to the questions derive from the first part of the interview (personal experiences) and need to be generalized.

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