**ISTANBUL TECHNICAL UNIVERSITY ★ GRADUATE SCHOOL**

# NEW FORMS OF THE CREATIVE ECONOMY: CREATIVE HUBS IN ISTANBUL

**Ph.D. THESIS**

**Meltem PARLAK**

**Urban and Regional Planning Department**

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**İSTANBUL TEKNİK ÜNİVERSİTESİ ★ LİSANSÜSTÜ EĞİTİM ENSTİTÜSÜ**

# YARATICI EKONOMİNİN YENİ FORMLARI: İSTANBUL'DAKİ YARATICI MERKEZLER

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Meltem PARLAK, a Ph.D. student of İTU Graduate School student ID 502112811, successfully defended the thesis/dissertation entitled "NEW FORMS OF THE CREATIVE ECONOMY: CREATIVE HUBS IN ISTANBUL", which she prepared after fulfilling the requirements specified in the associated legislations, before the jury whose signatures are below.

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***To the memory of my beloved Professor Manuel Leal da Costa Lobo,***

## FOREWORD

Ph.D. is a process in which you should manage both the academic and psychological side of the work. In the academic side of my work, I went deeply into my research area through endless readings, and it piqued my curiosity. Following the newest developments in my research area brought me new perspectives (or sometimes the feeling that I should read more). I had a chance to experience the practical side of my research area during my site visits, and I enjoyed it. On the other side, on the psychological side of the process, I had various feelings. Sometimes I got excited, but sometimes I couldn't find the energy to do anything. I sometimes felt desperate and hopeful at the same time. With all these emotions, it was an instructive process for me. Only now I can express my feelings after I have gone through that process.

I want to thank my advisor Prof. Tüzin BAYCAN for her valuable contributions and guidance during the process. We went through many collaborative international projects together. Furthermore, I want to give many thanks to Prof. Zeynep ENLİL and Assoc. Prof. Ebru KERİMOĞLU for their suggestions, guiding criticisms, and encouragement during the thesis progress meetings. Prof. Zeynep ENLİL is one of the people who introduced me to the exciting linkage between creativity and the city.

Site visits were one of the crucial steps which kept my curiosity alive during the process. I'm grateful for my interviewees, who welcomed me into their space and provided me with valuable information via online and face-to-face surveys. They made this research possible.

I must also state how much I appreciate the incredible patience, support, and limitless love that my parents Mualla and Nurettin PARLAK had for me. I felt their support during my entire life. I also would like to thank Atlas, Fulya, and Levent BALİ for their excellent support, joy, and courage in my personal life.

Lastly, I sincerely want to give my endless thanks to my beloved partner Tan MAVİTAN. We have experienced all difficult and exciting moments together, and he was always there to encourage me. He openly supported me in every aspect of this challenging process. He wisely listened to all my complaints or sometimes my enthusiastic knowledge transfer attempts. Moreover, I especially thank him for his help with the visuals of my thesis. Without him, everything would be tedious and difficult.

June 2021

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**ABBREVIATIONS**

**AR** : Augmented Reality
**CBD** : Central Business District
**CH** : Creative Hub
**CWS** : Co-working Space
**DCMS** : Department for Culture, Media and Sport
**DIY** : Do It Yourself
**EC** : European Commission
**EU** : European Union
**GDP** : Gross Domestic Product
**GLA** : Greater London Authority
**IC** : Incubation Center
**ICT** : Information and Communication Technology
**IT** : Information Technology
**İMP** : İstanbul Metropolitan Municipality
**İSTKA** : İstanbul Kalkınma Ajansı (İstanbul Development Agency)
**LDA** : London Development Agency
**MHFL** : Makerspaces, Hackerspaces and FabLabs
**NESTA** : National Endowment for Science Technology and the Arts
**OECD** : Organization for Economic Cooperation and Development
**SMEs** : Small Medium Enterprises
**STEM+A** : Science, Technology, Engineering, Math + Art
**TEM** : Trans-European Motorway
**TSMD** : Turkish Association of Architects in Private Practice
**TURKSTAT** : Turkish Statistical Institute
**UK** : United Kingdom
**UN** : United Nations
**UNCTAD** : United Nations Conference on Trade and Development
**UNESCO** : United Nations Educational, Scientific and Cultural Organization
**UNICEF** : United Nations Children's Fund
**US** : United States
**VR** : Virtual Reality

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## NEW FORMS OF THE CREATIVE ECONOMY: CREATIVE HUBS IN ISTANBUL

## SUMMARY

Globalization, development of information and communication technology (ICT) and widespread Internet access have led to profound changes in the cities of the 21st century. The effects of these changes are clearly visible in the economies of cities as well as the physical spaces and social relations in cities that evolve as a result of economic changes. Creativity and innovation play a crucial role in the resulting new economic landscape. The new economic landscape, which is also referred to as flexible specialization, post-fordism and the knowledge economy, is focused on high-level financial services, technology-intensive and knowledge-based firms and institutions, and cultural and leisure activities. Thus, creative industries are one of the most important driving forces of economic growth and the new economy. Creative industries require highly educated, knowledge-intensive labor.

Changes in the basic inputs of the economy and the resulting labor profile also bring about changes in physical spaces. Certain cities and areas come to the forefront where the highly educated, knowledge-intensive labor is concentrated. Therefore, gaining the upper hand in competition among cities and formulating strategies and new approaches to offer attractive benefits and possibilities for the creative labor have become more important than ever. These strategies involve a multi-dimensional approach which requires making investments into enterprises, human capital and infrastructure. Such an approach is based on both physical and social infrastructure investments that can promote diversity, secure equal rights and freedom of people, stimulate collaboration and support cultural vibrancy.

Creative hubs emerge out of the physical and social changes brought about by the creative economy. The labor profile required by the new economy that is characterized by concepts such as creativity, entrepreneurship and collaboration come with new requirements. And these requirements lead to new forms of working. The labor of a creative economy consists of communities that work under flexible conditions and are able to work remotely, and include freelancers, entrepreneurs and microbusinesses. From this point of view, creative hubs create the physical and social spaces where this type of labor can come together, work together, collaborate, engage in exchange of knowledge and establish new relation networks. Therefore, it is essential that we understand how these workspaces emerge, examine their properties, grasp their potential, and understand the changes that they trigger in cities.

Focused on creative hubs, the objective of this thesis study is to conduct a multi-dimensional review of creative hubs, which emerge during development of a creative economy, by covering their physical and social aspects, and present the spatial relation that they establish with cities. For this purpose, first the circumstances that lead to emerge of these new-type of workspaces have been examined. The changes that took place in the economy at the end of the 20th century and the beginning of the 21st century as well as the emergence of new economy have been scrutinized. Properties

of the creative economy, which appeared as information and technology gained more importance and creativity became a key component of economy, have been reviewed. Concepts such as creative cities and creative clusters have been addressed that place greater emphasize on the importance of human capital and enable the flexible, tolerating, cosmopolitan and face-to-face relationships needed by the labor of the new economy, and allow such relationships to be utilized to create new ideas and develop new products, services and organizations. Lastly, creative hubs, which are next-generation workspaces where freelancers, remote workers, entrepreneurs and start-ups convene, produce, work and do business together, have been reviewed. Under the umbrella of creative hubs, several concepts such as co-working spaces, incubation centers, makerspaces and labs (e.g. fablabs, innovation centers, city labs, design labs, augmented reality labs etc.) have been addressed

This thesis study covers the sample creative hubs that are located in Istanbul. Istanbul is the leading center of Turkey in terms of creative economy. In this context, it is important to reveal the potential of Istanbul for creative economy. Therefore, a chronological review of the changes in the land use structure in Istanbul has been conducted in connection with the city's economy. Then, the effects of city's existing economic structure on the land use are presented. Analysis of Istanbul's creative economy has provided useful guidance to evaluate spatial distribution of creative hubs in the city.

This analysis has been conducted based on the data obtained during the field research. The data was obtained through in-depth surveys conducted with the managers and founders of the creative hubs. Deskwork, observations made during the field research, social media accounts of creative hubs and findings related to geographic data have also been used as part of the method. Research questions and the survey questions have been formulated around the 4 main themes, i.e. Structure, Focus, Services and Values. The 8 research questions which guided the study have also been addressed in this context.

With a sample of co-working spaces, incubation centers, makerspaces and labs which fall into the definition of creative hub set out for the purposes of the thesis, a total of 49 surveys were conducted. The 49 creative hubs in the data set have a total of 117 locations, including their branches throughout the city. Geographic information system data has been utilized for the section on spatial distribution. For the geographic distribution section, data on 54 creative hubs, with a total of 129 locations in the city, has been used.

The research results show that the majority of creative hubs are private initiatives that emerged during the last 10 years. Majority of the creative hub users are aged 21-40 years. Most of the users within this age group are from the Generation Y.

One of the most important findings of the thesis study is that it has shown the relation between creative economy and creative hubs. All of the top 10 sectors represented in creative hubs belong to creative industries. The majority of co-working space members consists of people working on software projects. Similarly, most of the projects in incubation centers consist of information and communication technology projects. A significant portion of people and sectors in creative hubs work in creative sectors, and this is reflected in the user profile. Freelancers, entrepreneurs and microbusinesses make up the common users of creative hubs.

Labor in the creative economy has flexible work conditions. Therefore, creative hubs also offer flexible and versatile possibilities to their users. Creative hubs provide their

users with basic physical services, such as desks, chairs, Internet access, use of space and tools, which are made available during different hours. However, non-physical services are the ones that set creative hubs apart from others. Co-existence and physical proximity allow interactions, knowledge transfer and new business opportunities. Non-physical services provided by creative hubs include social possibilities such as developing relation networks, social interaction, mentorship, brainstorming, knowledge and skill sharing.

Creative hubs are distinguished from other workspaces based on the social possibilities brought about by sharing of physical space. This also reflects the basic motivation behind the emergence of creative hubs. It has been found out that most of the founders of creative hubs decided on founding such an organization in order to bring together like-minded people and that their decisions were based on the prior experiences that the founders had during their own business development processes.

Spatial distribution of creative hubs in the city is consistent with the location selections of existing finance and high-level service companies in the city. Creative hubs in the city, which emerged during the last 10 years and showed a particularly sharp increase during the last 5 years, are concentrated in the office buildings located in the city's central business district. This area is, at the same time, the most preferred location of sectors in the creative industries, and it is accessible and offers rich offer of cultural events. The properties and advantages of this area affect the location selection of creative hubs. Proximity to the central business district and proximity to public transport are the leading criteria that founders of creative hubs consider when making a location selection decision. Identity of the founders is another factor that affects location selection. It has been found out that the space provided by universities, local governments and public sector plays an important role in location selection of creative hubs. Another striking finding related to spatial distribution is that creative hubs also select certain buildings such as airports, old industrial buildings and stadiums and use them in an innovative way.

Results of the analysis on the status of creative hubs in Istanbul show that the next-generation workspaces, which emerge in line with the development of creative economy and are based on concepts such as collaboration, networking and shared resources, are in an upward trend. Presence of creative hubs in the city plays a key role in developing creative economy and increasing information and technology production. Based on the information obtained from analyses, a series of recommendations have been formulated which can help development of creative hubs and the creative economy in Istanbul. These recommendations involve a multi-dimensional perspective and require a long-term corporate commitment that is open to collaboration.

# YARATICI EKONOMİNİN YENİ FORMLARI: İSTANBUL'DAKİ YARATICI MERKEZLER

## ÖZET

Küreselleşmenin etkisi, bilgi teknolojilerinin gelişmesi ve internetin yaygınlaşması 21. yüzyıl kentleri üzerinde önemli değişimlere sebep olmuştur. Bu değişimin etkileri hem kentin ekonomisi hem de buna bağlı olarak değişen fiziksel mekân ve sosyal ilişkiler üzerinde net bir biçimde görülmektedir. Yeni ekonomik düzen içerisinde, yaratıcılık ve inovasyon önemli bir yere sahiptir. Yeni ekonomi, post-fordism, bilgi ekonomisi gibi isimlerle anılan yeni ekonomik düzenin odağında, üst düzey finansal hizmetler; teknoloji ve bilgi odaklı firmalar ve kurumlar; kültür ve boş zaman aktiviteleri bulunmaktadır. Bu bağlamda, yaratıcı endüstriler, ekonomik büyümenin ve yeni ekonominin en önemli itici güçlerinden birini oluşturmaktadır. Yaratıcı endüstriler ise yüksek eğitim seviyesine sahip, bilgi yoğunluklu bir işgücü gerektirmektedir.

Ekonominin temel girdisinde oluşan değişim ve buna bağlı olarak değişen işgücü profili fiziksel mekân üzerinde de değişikliğe ve yeni yaklaşımların ortaya çıkmasına yol açmaktadır. Belirli kent ve bölgeler söz konusu işgücünün yoğunlaştığı yerler olarak ön plana çıkmaktadırlar. Bu bağlamda, kentlerarası yarışta üstünlük elde etmek ve yaratıcı işgücü için cazip olanaklar sunmaya yarayan stratejiler üretmek giderek daha fazla önem taşımaktadır. Bu stratejiler, işletmelere yatırım yapmanın yanı sıra, beşerî sermaye ve altyapıya yatırım yapmayı gerektiren çok boyutlu bir bakış açısı gerektirmektedir. Çeşitliliği barındıran, eşitlikçi, hak ve özgürlükleri güvence altına alan, iş birliğini tetikleyen ve kültürel canlılığı amaçlayan fiziksel ve sosyal altyapı yatırımlarının birlikteliği bu bakış açısının temelini oluşturmaktadır.

Yaratıcı merkezler yaratıcı ekonominin getirdiği fiziksel ve sosyal değişimin sonucu olarak ortaya çıkmıştır. Yaratıcılık, girişimcilik, iş birliği gibi kavramları barındıran yeni ekonominin gerektirdiği işgücü profili; beraberinde yeni ihtiyaçlar ve bunun sonucu olarak da yeni çalışma formları ortaya çıkarmıştır. Yaratıcı ekonomide çalışan işgücünü; esnek çalışma koşullarına sahip, uzaktan çalışma olanağı bulunan, serbest çalışanların yanı sıra girişim ve mikro işletmelerden oluşan topluluklar oluşturmaktadır. Bu bağlamda, yaratıcı merkezler söz konusu işgücünün bir araya gelebileceği, çalışmalarını yürütebileceği, iş birliği yapabileceği, bilgi paylaşımında bulunabileceği ve yeni ilişki ağları oluşturabileceği fiziksel ve sosyal bir zemin oluşmaktadır. Bu sebeple, kent için oldukça yeni olan bu çalışma alanlarının ortaya çıkış biçimlerini irdelemek, özelliklerini incelemek, potansiyelini kavramak, kentte tetiklediği değişimi anlamak büyük önem taşımaktadır.

Yaratıcı merkezleri odağına alan tez çalışmasının amacı, yaratıcı ekonominin gelişme sürecinde ortaya çıkan yaratıcı merkezleri fiziksel ve sosyal boyutlarını kapsayacak biçimde çok boyutlu olarak incelemek ve kentle kurduğu mekânsal ilişkiyi ortaya koymaktır. Bu amaçla, kentte özellikle son 10 yılda ortaya çıkan yaratıcı merkezlerin ortaya çıkmasındaki temel motivasyonu ortaya koymak, kentte yeni çalışma formlarının ortaya çıkmasını hazırlayan koşulları incelemek, yaratıcı merkezleri diğer çalışma mekânlarından ayıran temel özellikleri analiz etmek, kentteki mekânsal

dağılımını incelemek, fiziksel ve fiziksel olmayan özelliklerinin oluşturduğu tipolojileri ortaya koymak hedeflenmektedir.

Yaratıcı merkezleri inceleyen tez bağlamında öncelikli olarak yeni çalışma alanlarının ortaya çıkmasına neden olan koşullar incelenmiştir. Ekonomide 20. yüzyılın sonu ve 21. yüzyılında başında yaşanan değişim ve yeni ekonominin ortaya çıkışı irdelenmiştir. Bilgi ve teknolojinin önem kazanması ve yaratıcılığın ekonominin önemli bir parçası haline gelmesi ile birlikte ortaya çıkan yaratıcı ekonominin özellikleri incelenmiştir. Kentlerin, yaratıcı ekonominin gelişmesi için gerektirdiği koşulları yerine getirmeye çalışması ile birlikte ortaya çıkan yeni yaklaşımlar ortaya konmuştur. Bu kapsamda, beşerî sermayenin önemine dikkat çeken; yeni ekonominin gerektirdiği işgücünün ihtiyacı olan esnek, toleranslı, kozmopolit, yüz-yüze ilişkilerin mümkün olduğu ve bu ilişkilerin yeni fikirlerin yeşermesi ve yeni ürünleri, hizmetlerin ve kurumların oluşmasına olanak sağladığı yaratıcı kent ve yaratıcı kümeler gibi yaklaşımlar ele alınmıştır. Son olarak, yaratıcı işgücünün içerisinde önemli yer tutan; serbest çalışanlar (freelancer), uzaktan çalışanlar (remote workers), micro işletmeler, girişimler ve esnek çalışanların bir araya gelme, birlikte üretme ve iş yapma biçimini oluşturan yeni çalışma biçimleri olarak ön plana çıkan yaratıcı merkezler ele alınmıştır. Bu kapsamda, ortak çalışma mekanları (co-working spaces), kuluçka merkezleri, makerspace'ler ve lab'ler (fablab, inovasyon merkezleri, çity lab, design lab, augmeted reality lab vb.) yaratıcı merkezler olarak ele alınmıştır.

Tez çalışması, İstanbul'da bulunan yaratıcı merkez örneklerini kapsamaktadır. İstanbul, yaratıcı ekonomi bakımından ülkenin en önemli merkezidir. Buna bağlı olarak da ülkedeki en fazla çeşitliliğe sahip ve sayıca en fazla yaratıcı merkez örneğini barındırmaktadır. Bu bağlamda, öncelikli olarak İstanbul'un yaratıcı ekonomi açısından sahip olduğu potansiyelin ortaya konması önem taşımaktadır. Bu sebeple, İstanbul'un arazi kullanım yapısının, kentin ekonomisi üzerinden değişimi tarihsel olarak incelenmiştir. Ardından, kentin mevcut ekonomik yapısının arazi kullanımına etkisi ortaya konmuştur. İstanbul'un mevcut yaratıcı ekonomisinin analizi, yaratıcı merkezlerin kentteki mekânsal dağılımını değerlendirebilmek için yol gösterici olmuştur.

İstanbul'daki yaratıcı merkezlerin analizine yönelik çalışma, alan çalışmasında elde edilen veriler üzerinden yapılmıştır. Veriler, yaratıcı merkez yöneticileri ve kurucuları ile yapılan derinlemesine görüşmeler ve anket yöntemi ile elde edilmiştir. Masa başı çalışması, alan çalışması sırasında yapılan gözlemler, yaratıcı merkezlerin sosyal mecralardaki yansımalarına ve coğrafi verilerine dair bulgular da yöntemin bir parçasıdır. Yaratıcı merkezleri derinlemesine incelemek amacıyla bu tür oluşumların farklı yönlerine vurgu yapan, literatür çalışması ile şekillenen 4 ana tema belirlenmiştir. Araştırma soruları ve onlara yanıt aramak üzere düzenlenen anket soruları 'Yapı', 'Odak', 'Hizmetler' ve 'Değerler' olarak belirlenen 4 ana tema etrafında şekillendirilmiştir. Her bir araştırma sorusunun ilgili tema ile ilişkili olması amaçlanmıştır. Tez çalışması, aşağıda yer alan 8 araştırma sorusuna yanıt bulmayı amaçlamıştır.

1. Yaratıcı merkezlerin kuruluş yapısı nedir?
2. Yaratıcı merkezlerin topluluk yapısı nedir?
3. Yaratıcı merkezlerin mekânsal yapısı nedir?
4. Yaratıcı merkezlerin tipolojisi nedir?
5. Yaratıcı merkezlerde hangi sektörlerden kişi ve işletmeler yer almaktadır?
6. Yaratıcı merkezlerde sunulan fiziksel hizmetler nelerdir?

7. Yaratıcı merkezlerde sunulan fiziksel olmayan hizmetler nelerdir?
8. Yaratıcı merkezlerin kuruluşunun ardında yatan motivasyon nedir?

Tez kapsamında belirlenen yaratıcı merkez tanımına uyan, ortak çalışma mekanları, kuluçka merkezleri, makerspace ve lab'lerden oluşan örneklem çerçevesinde toplam 49 anket görüşmesi yapılmıştır. Veri setini oluşturan 49 yaratıcı merkezin şubeleri ile birlikte kent içerisinde toplam 117 lokasyonu bulunmaktadır. Tezin mekânsal dağılım ile ilgili bölümü için coğrafi bilgi sistemi verilerinden yararlanılmıştır. Bu sayede çalışmanın coğrafi dağılım bölümüne daha fazla sayıda yaratıcı merkez verisi dahil edilebilmiştir. Coğrafi dağılım bölümü kapsamında, kent içerisindeki lokasyonlarının toplamı 129 olan, 54 yaratıcı merkezin verisi kullanılmıştır.

Araştırmanın sonuçları, yaratıcı merkezlerin özellikle son 10 yılda ortaya çıktığını ve çoğunluğunu özel girişimlerin oluşturduğunu ortaya koymaktadır. Yaratıcı merkez kullanıcılarının büyük bölümü 21-40 yaş arasında bulunmakta ve çoğunluğunu bu yaş grubu içerisinde bulunan Y jenerasyonu oluşturmaktadır.

Tezin ulaştığı en önemli bulgular biri yaratıcı ekonomi ve yaratıcı merkezler arasındaki ilişkinin ortaya konmasıdır. Yaratıcı merkezlerde yer alan ilk 10 sektörün tamamı yaratıcı endüstrilere ait sektörlerde faaliyet göstermektedir. Ortak çalışma mekanlarında (co-working space), yazılım alanında faaliyet gösteren üyeler çoğunluğu oluşturmaktadır. Benzer şekilde, kuluçka merkezlerinde (incubation center), en fazla bilgi ve bilişim teknolojilere ait projeler yer almaktadır. Yaratıcı merkezlerdeki kişi ve sektörlerin önemli oranda yaratıcı sektörlerde faaliyet gösteriyor olması, kullanıcı profilini de şekillendirmektedir. Serbest çalışanlar, girişimciler ve mikro işletmeler temel yaratıcı merkez kullanıcılarını oluşturmaktadır.

Yaratıcı ekonomi içerisinde yer alan işgücü esnek çalışma koşullarına sahiptir. Bu sebeple, yaratıcı merkezlerin kullanıcılarına sunduğu olanaklar da esnek ve çok yönlüdür. Yaratıcı merkezler kullanıcılarına farklı zaman aralıkları için masa, sandalye, internet kullanımı, mekân ve alet kullanımı gibi temel fiziksel hizmetler sunmaktadır. Ancak, yaratıcı merkezlerin sunduğu ayırt edici hizmetleri, fiziksel olanakların şekillendirdiği fiziksel olmayan hizmetler oluşturmaktadır. Bir arada bulunma ve fiziksel yakınlık; kendiliğinden gelişen etkileşime, bilgi aktarımına ve yeni iş olanaklarının gelişmesine fırsat yaratmaktadır. İlişki ağını geliştirme olanağı, sosyal etkileşim, mentorluk, beyin fırtınası yapma fırsatı, konu odaklı bilgi ve yetenek paylaşımı gibi sosyal olanaklar yaratıcı merkezlerin sağladığı fiziksel olmayan hizmetleri oluşturmaktadır.

Yaratıcı merkezler, fiziksel paylaşım ile şekillenen sosyal olanaklar üzerinden diğer çalışma mekanlarından ayrışmaktadır. Bu durum, yaratıcı merkezlerin ortaya çıkmasının ardındaki temel motivasyonu da oluşturmaktadır. Yaratıcı merkez kurucularının çoğunluğunun, benzer düşünce yapısına sahip kişileri bir araya getirmek ve kendi iş geliştirme süreçlerinde edindikleri tecrübe ve ihtiyaçlar sonucunda bu tür bir oluşum kurmaya karar verdiğini ortaya koymaktadır.

Yaratıcı merkezlerin kent içerisindeki mekânsal dağılımı, kentin mevcut finans ve üst düzey hizmet firmalarının yer seçimleri ile uyum göstermektedir. Kentte, son 10 yılda ortaya çıkan ve özellikle son 5 yılda sayıları hızla artan yaratıcı merkezler yoğunluklu olarak kentin merkezi iş alanında yer alan ofis yapılarında konumlanmaktadır. Bu alan, aynı zamanda, yaratıcı endüstrilerde yer alan sektörlerin en fazla bulunduğu, sosyal ve kültürel olanaklar açısından zengin, ulaşılabilir bir alandır. Bu alanın sahip olduğu

özellik ve olanaklar, yer seçim kriterleri üzerinde de etkili olmaktadır. Yaratıcı merkez kurucularının yer seçimine karar verirken göz önünde bulundurduğu başlıca kriter arasında merkezi iş alanına ve toplu taşıma yakınlık bulunmaktadır. Yer seçimini etkileyen bir başka önemli faktör de kurucunun kimliğidir. Üniversite, yerel yönetim, kamu gibi kurumların mekân sağlama olanaklarının, yaratıcı merkezlerin yer seçiminde ve konumlanmasında belirleyici olduğu ortaya çıkmaktadır. Tez sonucunda mekânsal dağılıma ait ulaşılan bir başka çarpıcı bulgu, 2000'li yıllar öncesinde ortak çalışma, birlikte iş üretme gibi çalışma alanları bulundurmayan havaalanı, eski endüstri yapısı, stadyum gibi bazı yapıların, yaratıcı merkezlerin yer seçtiği alanlar haline gelmesidir.

Yaratıcı merkezlerin İstanbul'daki durumunu analize yönelik sonuçlar, kentte yaratıcı ekonominin gelişmesiyle birlikte ortaya çıkan; iş birliği, ilişki ağları geliştirme ve kaynak paylaşma gibi kavramlar üzerinden şekillenen yeni nesil çalışma mekanlarını gelişmekte olduğunu ortaya koymaktadır. Yaratıcı ekonominin gelişmesi, bilgi ve teknoloji üretiminin artması için kentteki yaratıcı merkezlerin varlığı önemli rol oynamaktadır. Analizler sonucunda ortaya çıkan bilgiler ışığında, İstanbul'da yaratıcı merkezlerin ve buna bağlı olarak yaratıcı ekonominin gelişmesine yönelik bir dizi öneriler bütünü bulunmaktadır. Bu öneriler; çok boyutlu bir bakış açısını barındıran, uzun soluklu, iş birliğine açık, kurumsal yapılanmayı şart koşan bir anlayış gerektirmektedir.

# 1. INTRODUCTION

Cities have undergone significant changes in the organization of workplaces over the last decade. One of the main reasons for these changes in urban form is the shift in urban economies. In the 1990s, the effects of rapid globalization and advancing technologies led to profound changes in different economic sectors, requiring high-level financial services, technology-intensive and knowledge-based firms and institutions, and cultural and leisure activities (Gospodini, 2008). The principal resources of this economy became creativity and data. Creativity thus began to be considered the foundation of innovation, which itself was seen as the new primary driver of economic growth.

For this reason, creative industries became the key driver of the new economy (Kong, 2014). The rise of such industries in fostering the urban economy led to profound shifts in the society of cities and urban morphology, as investment in creative industries also entails investment in people, business, and infrastructure (Martin & Florida, 2009). The labor force of creative industry sectors comprises high-tech staff and knowledge workers (Gospodini, 2008) with a high level of education and the knowledge and skills needed to use advanced technologies (UNCTAD, 2010). Florida (2002b) describes such workers as the creative class, as their presence brings economic, social, and cultural viability to the urban environment. Because the built environment and social structure are intertwined, urban landscapes are rapidly changing to accommodate the new styles of work, life, leisure, and living forms emerging in cities.

The proliferation of innovation in information technology had also changed the relationship between work and space. Advanced technologies in telecommunication and information technology eliminated the obligation of being in a specific place to work and increased mobility and flexibility at work. Wireless networks, laptops, and cell phones made it possible to work from anywhere. The continuous fields of presence with technology's help moved working environments beyond central office buildings, and regular working hours had broken down (Laing, 2013). Mitchell (2003) describes the new type of working spaces that work from out of the office instead of a desktop

computer on a specific office as post-sedentary space. As a result of it, work can be carried into multiple kinds of places, which results in describing a new relation between work and space. While this type of working style enables working remotely with different teams in different locations, it also reveals the importance of face-to-face communication with other people in the same location. Because these new working forms require information exchange and creating new business connections causing by the geographical proximity in those places (Spinuzzi, 2012). In this context, creative hubs (CHs) are emerging forms of the new workplace. They are unseen until the early 2000s. Thus, they require a better understanding. Because the organization of workspaces in the city is one of the most critical tool to understand the city's different aspects, such as economy, lifestyle, level of education, and population distribution. Therefore, their rapid global ascent has come to attention from other disciplines. Governments, local authorities (Greater London Authority, 2014), policymakers (European Commission, Creative Europe), development agencies (London Development Agency, 2003), and organizations (British Council, 2016) have highlighted the importance of such workspaces and developed policies to foster them; they support and fund CHs, create networks to help them collaborate and connect, and make investments to help them become self-sustaining. However, an academic study on CHs is currently nascent and only recently developing. For this reason, this thesis investigates CHs from an academic perspective to fill a gap in the understanding of CHs in a comprehensive way, which will serve as a foundation for the knowledge of the economic and physical changes in the city.

### 1.1 Aim and Scope of the Study

The fundamental objective of this study is to offer a multi-dimensional review of CHs emerging during the development of innovative economy by addressing their physical and social aspects and to demonstrate their spatial relations with cities. In this context, study focuses on the investigation of CHs in Istanbul. It aims,

- to understand the motivation behind their emergence
- to better understand the changing working forms of the city
- to analyze key elements of CHs
- to investigate their location choices in the city

- to map their spatial distribution in the city
- to analyze their typology through their physical and non-physical structures

The scope of this research consists of examples of CHs from Istanbul comprising co-working spaces (CWSs), incubation centers (IC), labs (design based urban labs, living labs, and R&D and Innovation labs), and makerspaces. Istanbul was chosen as the case study area because it is the city with the most urban vitality, cultural diversity, and young and skilled labor force at national level (Enlil, Evren, & Dincer, 2011) and thus hosts the most diverse and varied examples of CHs in country level.

Although the concept is discussed by different disciplines and handled from different perspectives, research on the emergence and structure of CHs is sparse and there is no focus for CHs in Istanbul yet. This thesis aims to make a useful contribution to the understanding of the emergence of CHs in cities.

The following definition of CHs was used to select samples from Istanbul: a CH is a place with physical and social services where freelancers, entrepreneurs, and micro-SMEs within the creative, cultural, and tech sectors can work, collaborate, share, experience, network, develop projects together, and create ideas. CWSs, ICs, makerspaces, and labs fell under this definition: CWSs provide space to work, share, network, and collaborate; ICs lend support for infrastructure, mentorship, and networking for projects and start-ups to develop their ideas and businesses; makerspaces are collaborative workspaces with different tools and equipment to create, invent, and learn; and labs provide an environment of collaboration and participation to develop solutions for problems and create ideas. Examples of CHs that could be considered virtual networks were excluded from the study, as one of the main research questions was to location analysis of CHs including spatial distribution and location selection criteria of CHs and identify the physical services that CHs provide for their members. Therefore, only CHs with physical structures were included in the case study.

The overall structure of the thesis takes the form of five sections, including the introduction, which gives a brief overview of the subject. The second section addresses the theoretical concepts which guide this study as well as the shifts that paved the way for the emergence of CHs and the organizations that accompanied CHs. Therefore, first the changes in the economic landscape of cities are discussed. Contributions of

the creative economy concept to the literature and the new forms that came with it have been investigated. Social and physical strategies adopted by cities to attract creative workforce and creative capital are discussed under the title of creative city. With the creative cluster approach evaluated as part of creative city strategies, network organizations, and physical and social structures within clusters have been examined. Use of creative clusters as an urban development strategy has been studied. The concept of CH, which is dealt with in the context of creative economy and makes up the backbone of this study, has been described in an attempt to better discuss the emergence and scope of CWSs, ICs, makerlabs, fablabs and hackerspaces. The resulting definitions obtained this way also have proved to be a useful guidance in identifying the organization to be addressed during this field study. Furthermore, a review has been conducted on f how CHs are tackled in international and regional policies. Relevant policies developed by various organizations were addressed, and corporate structures and networks formed around this subject have been studied.

In the third section, Istanbul, which is the research field of the study, is analyzed in terms of creative economy. First of all, a chronological review of the changes in the land use structure in Istanbul has been conducted in connection with the city's economy. Then, the effects of city's existing economic structure on the land use are presented. This section is important in that it provides a basis for the location analysis, which is included in the analysis part of the thesis, and for evaluating the spatial distribution of CHs. Similarly, the current status of the creative economy in the city has been evaluated to gain insight into the circumstances under which CHs appeared. Lastly, a brief presentation of CHs in Istanbul is provided as an introduction to the analysis part of the thesis.

In the fourth section, findings obtained from surveys and on-site observations are discussed. The analysis process is structured around 4 main topics that constitute the research questions. Firstly, CHs in the city are analyzed with regard to their general characteristics, users, services offered by them, their manifests and the sectors accommodated by them. The following section presents the location analysis. The location analysis, which starts from a building scale and ends at a city scale, has been carried out in 4 stages. Initial intended use of the buildings housing CHs has been analyzed first. This is followed by the analysis of the current functions of the buildings. Subsequently, decisions in regarding selection of location have been scrutinized.

Criteria taken into account when making a location selection have been examined. In the last stage related to location, geographical distribution of CHs in the city has been reviewed. The last part of the analysis discusses whether CHs have a specific typology or not. Therefore, this analysis primarily focuses on the co-working spaces that have the highest number of locations and the richest diversity. Different co-working space typologies have been revealed by analyzing their services, physical structures, and social facilities offered by them.

In the fifth section, i.e. the conclusion section, an evaluation of the findings obtained from the analyses is provided. The findings have also been discussed with regard to their potential implications for the future of Istanbul.

## 1.2 Data and Methodology

Both quantitative and qualitative data collection techniques were used for the formulation of the thesis. The methodological structure of the thesis takes the form of four consecutive stages. In the first stage, the conceptual framework of the research was designed. The literature, database, institutional structures, worldwide examples on the new economy, creative economy, creative city, creative clusters, CHs and international organizations and networks were reviewed in this context. The literature review has also shed light on the design of research framework. As a result of the literature review, the definition of CHs that can be used for the selection of CHs has been decided. Moreover, four main categories (structure, focus, services, values) have been decided, which form the structure of the research questions and survey questions. Four main categories have been designed to cover all aspects of CHs. In the second stage, the relationship between macroform of Istanbul and the economy has been investigated in the historical context in order to have a comparative perspective for the analysis of the current creative economy of Istanbul. In the third stage, field research has been conducted to gather data for the analysis. In this context, survey questions were prepared around research questions. In the fourth and the last stage, data gathered from the field research has been analyzed.

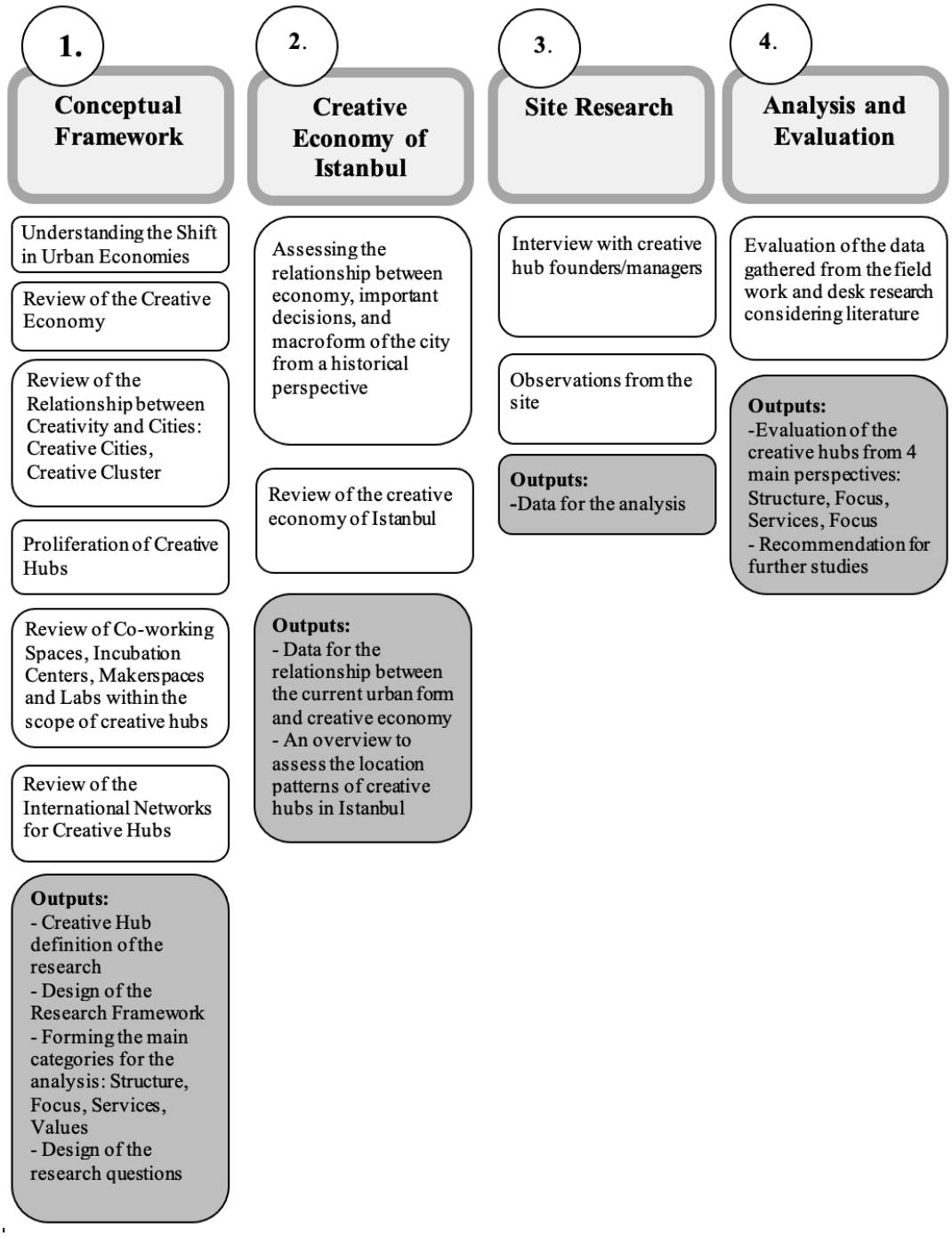


**Figure 1.1 :** Methodological framework of the research.

*Design of the Research Questions*

A literature review provided the necessary guidance in designing an appropriate framework for this study which is intended to carry out a multi-dimensional review of CHs. Based on the literature review, 4 main categories have been identified, i.e. Structure, Focus, Services and Values, to cover both physical and non-physical properties of CHs. The research questions and survey questions that are intended for

providing the answers to these questions were structured based on these 4 main categories. Consequently, a total of 8 research questions are included which shape the analysis section of the study. Each research question is associated with the 4 main categories (See Figure 1.2).

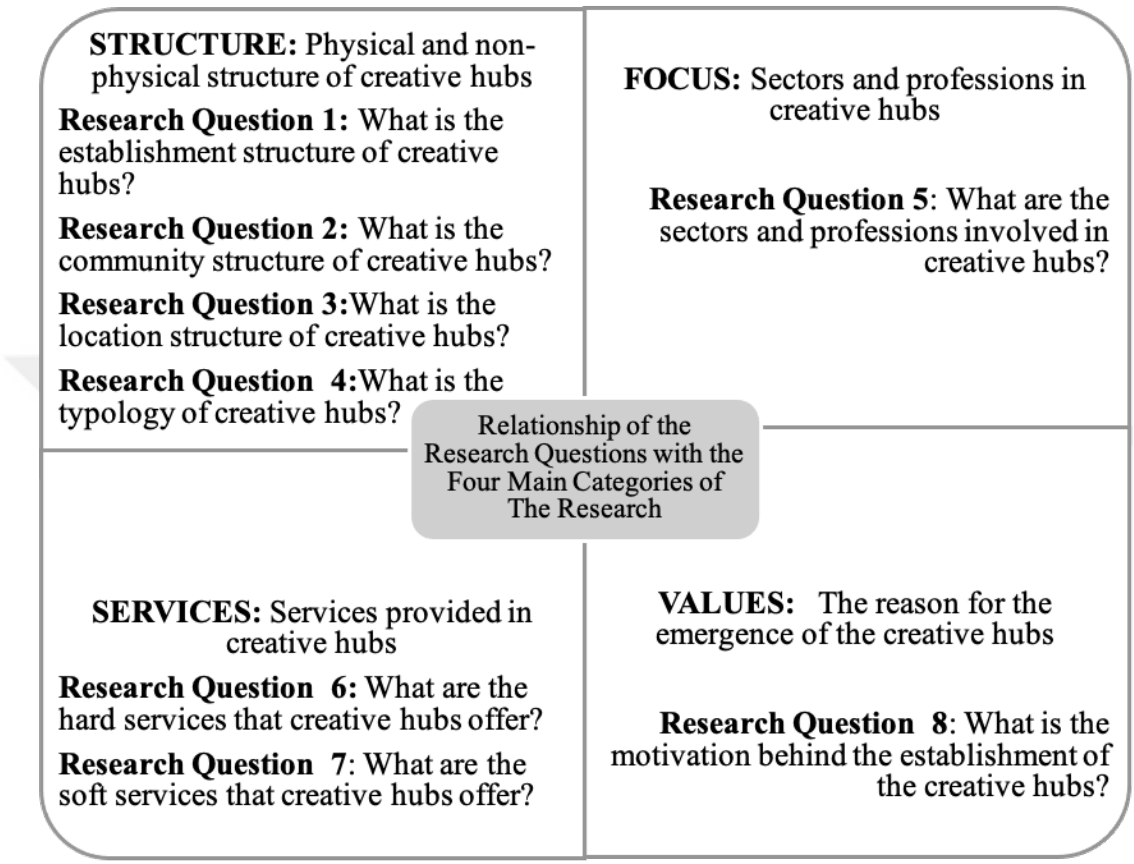


**Figure 1.2 :** Structure of the research questions.

*Data and Design of the Survey*

The data which provides the basis for the analysis section of the study has been derived from the survey. Development and implementation of the survey and evaluation of the survey results have been carried out in 4 stages (See Figure 1.3). During the first stage, the definition of CH to be used for the purposes of the study has been formulated based on the literature review. Before a deep dive into CHs, a structure based upon 4 pillars, i.e. main categories of Structure, Focus, Services and Values, has been formed. This structure also shapes the research framework of the study. Based on the formulated definition of CH, various examples of CHs in Istanbul have been investigated.

In the second stage, survey questions were prepared considering structure, focus, services and values categories. The questions asked of ICs or labs were differentiated,

and extra questions were added, to obtain detailed info for their specific case. For example, ICs have a different application process from CWSs, makerspaces, and labs. Extensions were made to certain questions in light of this situation. The structure of the survey was organized around research questions, each of which applied to one of the main categories shown in the Figure 1.2. Various closed- and open-ended survey questions pertaining to each category were prepared to obtain detailed info about the research questions.

During the third stage of the research, meetings were scheduled with CH leaders and comprehensive surveys were carried out. Researcher site observations were performed during these meetings. The research participants were initially selected from the co-founders or leaders of the CHs. When that was not possible, surveys were conducted with managers. If a face-to-face meeting couldn't be scheduled, the online version of the survey was sent to the participant. Site visits and surveys were carried out from June 2017 to February 2020.

In the last stage, all the data gathered from the surveys and observations was analyzed according to the main categories specified in Figure 1.2. Design process of the survey have been summarized in Figure 1.3.

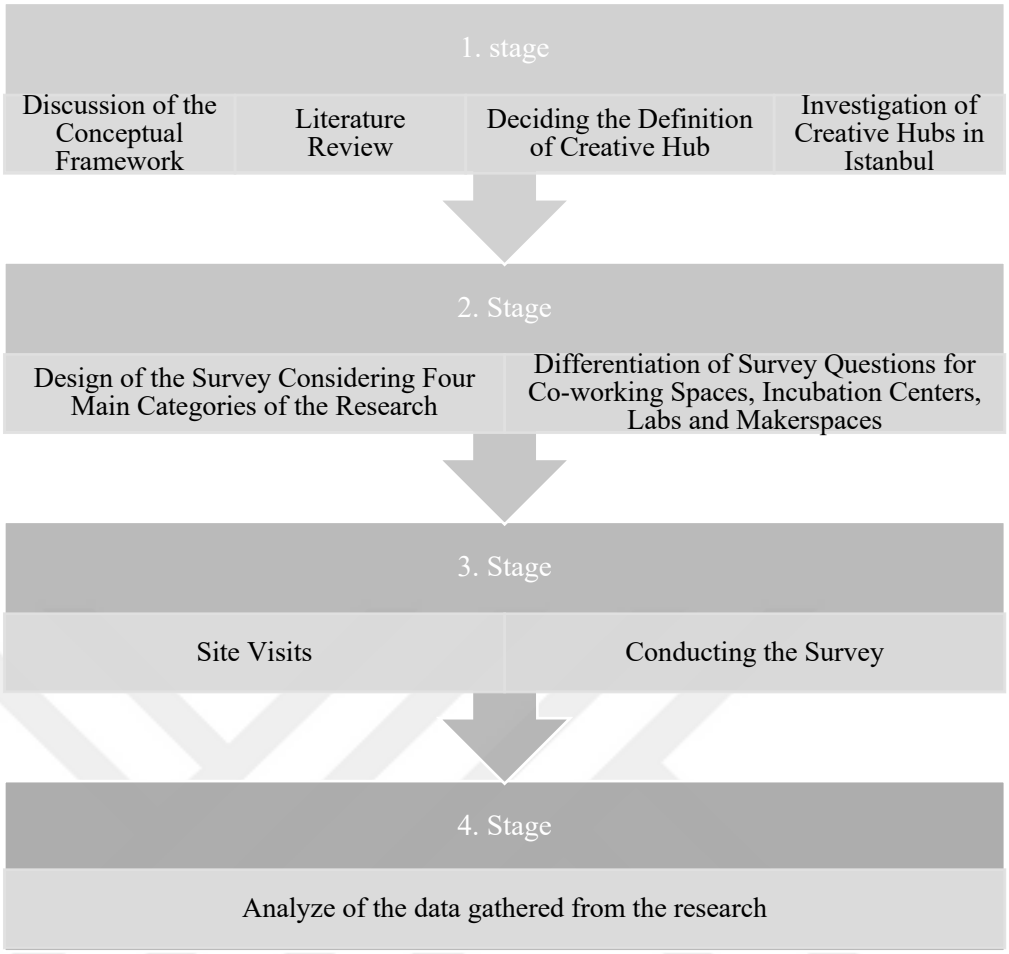


**Figure 1.3 :** Design process of the survey.

The list of CHs was identified through snowball sampling supplemented by web searches and investigation of the Istanbul sections of international networks related to CHs. The data could not be collected from the Istanbul Chamber of Commerce or the Turkish Statistical Institute because there is no specific CH classification in these institutions' records. With a sample of CWSs, ICs, makerspaces and labs which fall into the definition of CH, a total of 49 survey were conducted. The 49 CHs in the data set have a total of 114 locations, including their branches throughout the city. Only those CHs which accepted to participate in the survey upon preliminary discussions with them have been included in the research. The analysis consists of three parts, i.e. Rise of CHs in Istanbul, Location analysis of CHs in Istanbul, and Typology of CHs in Istanbul. Details of the data sets used in each part of the analysis are provided in section 4.1 Research Questions, Scope and Methodology.

## 2. CONCEPTUAL FRAMEWORK

### 2.1 Shift in Urban Economies

To understand the relationship between creativity and its effects on cities, it's mandatory to understand the dynamics of the new economy and economic shifts in 20th century. During the first half of the 20th century, industrial production was standardized. The effect of the mass production of goods lowered the unit costs and introduced the world to the sustained periods of high growth and corporate expansion. In 1950's the growth was driven by large industrial corporations, and business services (Hutton, 2000). The rise of Fordist mass production also caused the growth and spread of the large industrial metropolis (Scott, 2006). This was also the period of the growth of professional, managerial, technical occupations on the division of labor. By the 1970's, production began to shift from Fordism to flexible production. Management consultancies, marketing, commercial banking, and legal services became the leading professions while office based professionals, management, and clerical occupations rose (Hutton, 2000). Telecommunications merged with information technologies and it became a new medium of doing business. This enabled information exchange for financial and service sectors (Rodrigue, Comtois, & Slack, 2013). Some of the cities from developed world became the principal nodes which Friedman (1986) named them world cities. In the period of 1990's, with the effect of rapid globalization and advanced technologies, components of the economy had profound changes which require high level financial services, technology intensive and knowledge based firms and institutions and cultural and leisure activities (Gospodini, 2008). The resource of the economy became creativity and data where the primary fuel of the 20th century's economy was oil. Howkins (2001) describes the new era in the economy as "the new economy is creativity plus electronics." According to The Economist, companies of the 'new economy' such as Alphabet (parent company of Google), Amazon, Apple, Facebook, Microsoft are the most valuable listed firms in the world. Those companies collectively racked up over $25bn in net profit in the first quarter of 2017 (The Economist, 2017). The products of the new economy serve as software and intelligence

(Flew, 2002) which requires creativity and advanced knowledge for their production. Flew (2010) states in the new economy era, especially in 2000-2010, creativity was seen as the foundation of innovation, and innovation was seen as the new primary driver of economic growth. For this reason, creative industries became the key driver of the new economy (Kong, 2014).

## 2.2 Creative Economy

The term creative industries began to be used twenty years ago. The well-known and the most frequently used definition of this term made by the Department of Culture Media and Sports (DCMS) in the UK in 1998 and listed 13 sub-sectors (DCMS, 1998). The term "creative industries" has been described differently for different nations and territories. Local politics, histories and geographies affects the making a definition of creative industries. There is still an ongoing debate about how to classify those industries (Banks & O'Connor, 2009). For example, DCMS excludes sectors such as entertainment, tourism and heritage. Similarly, the sectors in science, research and development are mostly excluded while defining creative industries. General tendency on defining creativity and creative industries is mostly to focus on cultural and aesthetic rather than scientific and technological (Kong, 2014). While defining emerging creative class and creative entrepreneurs, Richard Florida (2002b) has a profound effect on broadening the notion of the creative arts to include group of professional, scientific and artistic workers whose presence generates economic, social and cultural dynamism. The concept of the creative economy derives from the term creative industries. It highlights the importance of creative work, its contribution to the economy and country, and the role technologies played as allies of cultural policy, paving the way for the subsequent inclusion of technology sectors in the list of creative industries. Creative economy is not reordering of the sectors of creative industries. In the current scenario, creativity has a responsibility of organizing new business models, new organizational processes, and an institutional architecture that stimulates economic and social sectors and agents by the effect of new technologies, globalization and compelling socioeconomic situation of the world. Therefore, creative economy is closely related with other concepts such as experience economy and knowledge economy. It gets the value of originality, of collaborative works from experience economy. Similarly, it uses the emphasis on the trinomial technology, skilled work

force, and the generation of intellectual property rights of knowledge economy (Fonseca Reis, 2008). Howkins (2001), relates creative economy with new economy and extends the definition of it from the arts to science and technology. Howkins defines the creative economy as "the transactions of creative products that have an economic good or service that results from creativity and has economic value" (2001, p. 8). Creative economy can be considered "as a holistic multidisciplinary approach dealing with the interface between economics, culture, and technology, centered on the predominance of products and services with creative content, cultural value, and market objectives, which result from a gradual change in paradigm" (Fonseca Reis, 2008, p. 25).

The creative economy is the new economic engine of advanced nations and cities. The creative economy is defined as "employment in the creative industries (both in creative jobs and in other roles), plus employment in creative jobs outside the creative industries" (Nathan, Kemeny, Pratt, & Spencer, 2016, p. 4). The US has the largest creative economy among other developed counties. The number of creative employees was 14 million in the US, while it was 2.5 million for the UK and 2.24 million for Canada in 2016. The share of the creative economy was 13 percent in Canada compared to 9.5 percent for the US and 8 percent for the UK, according to the latest statistics (Nathan et al., 2016). When a similar study is conducted for creative industries in European Union, it's reported that 5.21% of employment in Europe (EU-28), which is equal to 11.3 million, is in creative industries for 2013 statistics (Nathan, Pratt, Rincon–Aznar, & Rincon-Aznar, 2015). Recent studies on the most valuable firms in the world also confirm the shift in the economy.

Interest in creativity is also linked to the crisis that cities should overcome depending on the economic transformation, globalization and the rise of new industries. Shift of manufacturing to lower age economies and the decline of the inner city in the 1970s and 1980s made cities to develop post-industrial urban development strategies (Flew, 2010). While old industrial sites from the industrial era such as warehouses, heavy industry factories that are now inner city areas were causing problems for the city, they suddenly became the resurgence (Scott, 2008) of cities. Derelict industrial sites of the cities redeveloped for post-industrial uses which also aims city branding strategies, promoting cultural diversity and building new forms of cultural infrastructure, and cities became "motors of the global economy" in new economy era (Flew, 2010). On

the other hand, it's proven that creative economy is more resilient to the crisis. According to UN report (UNCTAD, 2010), during the economic downturn of 2008, while overall levels of international trade fell, world trade in creative goods and services has remained relatively robust. Therefore, investment in creative industries a key factor not only for overcoming damages of the traditional industrial era, but also for a sustainable urban economic development.

The rise of the creative industries as fostering the urban economy had profound changes in the society of cities as well as the urban morphology. Because investment on creative industries includes investing in people, business, infrastructure (Martin & Florida, 2009). The labor force of creative industry sectors requires high tech staff, knowledge workers (Gospodini, 2008), high level of education and the knowledge and skills needed to make use of the advanced technologies (UNCTAD, 2010). As Florida (2002b) describes those workers as creative class, their presence brings economic, social and cultural viability to the urban environment. So called creative class whose economic function is to create new ideas, new technology or new creative content consists people from different creative professions. Although creative class term itself is still controversial, it is possible to see the effects of how people in science and engineering, architecture and design, education, arts, music and entertainment (The Creative Nova Scotia Leadership Council, 2012) shapes the urban environment according to their specific needs and consumption habits. According to Mommas (Kong & O'Connor, 2009) different forms of creativity go together with different financial, professional and lifestyle cultures, with a preference for different kinds of places and environments to live, work and socialize. Creative individuals position themselves where they can nourish their minds socially, culturally, vocationally and environmentally. Throughout the history, great cities such as London, Paris or New York provided those social and cultural infrastructures (Hall, 2000), but today cities that aim to attract "creative class" develop policies to encourage cultural life, to build attractive urban environment and to promote different lifestyles. Landry (Landry, 2000) defines the combination of hard and soft infrastructures to develop creativity in cities and regions. While hard infrastructure consist of the network of buildings and institutions in a city or a region, soft infrastructure refer to the social network of a city or region. Soft infrastructure defines as "the system of associative structures and social networks, connections and human interactions, that underpins and encourage the flow

of ideas between individuals and institutions" (Charles Landry, 2010: 133). Kenney and von Burg (2000) explains the development of 'Silicon Valley' in a similar way with two interconnecting economic structure. They suggest that the first one was established organizations and those who supported their activities (universities, research institutions), the second one was the institutional infrastructure that had emerged to support the creation and growth of new firms, or start-ups.

The relationship between creativity, creative industries, and the concentration of these industries from an urban planning perspective is mostly discussed in the context of concepts such as the creative city (Florida, 2002b; Landry, 2008), creative clusters (Bagwell, 2008; Pratt, 2004), cultural clusters (Mommaas, 2004), business clusters (Pratt, 2004), creative spaces, creative quarters, and creative districts (Evans, 2009a).

### 2.3 Creative City

Emergence of the 'creative city' concept is one of the consequences of the creative economy that directly affects the economy of the city, its built environment, visitors and inhabitants. Culture & art, which is a part of creativity, creative industries and social life, has become an integrated element of the post-industrial economy. Creative city approach is based on the idea that this relationship creates employment and new job opportunities and increases attractiveness of local communities. Use of culture as a tool for urban planning and development dates back to old times. In the early 1900s, some cities were reinterpreted with the City Beautiful movement. This movement, which can be observed in cities such as Paris and Vienna, cities were viewed and treated as a piece of art. This understanding was to be later replaced with a functional planning approach as a result of the effects of the World War I and II. This understanding which lasted until the end of 1950s was accompanied by the cultural zonation period during which cultural centers and neighborhood civic facilities were built. In the 1960s and 1970s, while on the one side flagship projects such as the Sydney Opera house were being built, on the other side "cultures of communities" understanding that embraced community based cultural development and social planning which was led by Jane Jacobs was dominant. Entering the 1980s, it was discovered that the culture in fact played a key role in urban development. Development of culture industries and emergence of concepts such as European Capital of Culture coincide with this period. 'The creative city' concept became a topic

of discussion in the 1990s. Within the framework of this understanding pioneered by theorists such as Charles Landry (Bianchini & Landry, 1995; Landry, 2008), Richard Florida (Florida, 2005), and Allen Scott (Scott, 2006), the creative city approach emerged which then led to development of culture and art planning strategies as well as concepts such as cultural precincts and culture tourism (Freestone & Gibson, 2006).

The reason why culture became such an important element in the urban economy is the search of post-industrial societies and communities for a new direction. The production mode that was heavily based on mass manufacturing methods in cities slowly evolved into a post-fordist manufacturing mode that was valued for its social, cultural and humanitarian aspects. Consequently, in a rapidly-evolving and highly competitive global environment, it was necessary to produce new alternatives to those sectors which generated less revenue and had a lower return of investment. Transformation of manufacturing technologies and production modes is one of the most significant factors behind the idea of creative city. Increased influence of the creative class in the economic structure, growing economic impact of creative industries, increasing role of innovation in the economy and environmental concerns accelerated the emergence of creative economy, which in turn led to appearance of the creative cities approach (Florida, 2005; Scott, 2006).

Creative city focuses on what a city offers by leveraging its physical and sociocultural characteristics rather than definitive definitions related to the city. Therefore, when defining the creative city, theorists such as Hall (2000, 2004), Scott (2006, 2010, 2014), Pratt (Pratt, 2008), Landry (2007; 2008), and Evans (Evans, 2009a, 2009b) focused on the physical and social facilities, atmosphere, policies, workforce and corporate organizations of the city. From the following definitions related to creative city, it can be inferred that what makes a city creative is not only one single component, but it is holistic perspective which combines many factors together.

**Table 2.1 :** Different definitions of creative city.

| Source | Definition |
|---|---|
| Bradford (2004) | 'Creative cities are dynamic locales of experimentation and innovation, where new ideas flourish and people from all walks of life come together to make their communities better places to live, work, and play (2004, p. 1).' |
| Flew (2005) | 'Creative cities may be simply global cities by another name. *Global cities* are those cities which, by virtue of their dominant place within the key global service industries, constitute critical nodes for all global transactions, and whose relative significance grows the more that economic activity moves from predominantly national to increasingly global circuits (2005, p. 3)'. |
| Landry (2008) | Combination of hard and soft structures that<br>-encourages physical developments and place-making or urban design that foster communication between people.<br>- attracts the highly skilled and flexible labor force.<br>- wants dynamic thinkers – creators as well as implementers as creativity is not only about having ideas, it is about making them happen too. |
| UNCTAD (UNCTAD, 2010) | 'An urban complex where cultural activities of various sorts are an integral component of the city's economic and social functioning (UNCTAD, 2010). |
| Cohendet, Grandadam and Simon (2010) | 'The creative city can be seen as a delicate, subtle and fragile local ecology of knowledge, where creative processes nourish themselves from the repeated exchanges among a variety of heterogeneous entities that all contribute, in their own way, to foster the development of new ideas that continuously emerge, circulate, expand and try to find their routes to the market, through the constant interactions between the underground, the upperground and the middleground (2010, p. 108).' |
| Landry (2012) | 'A creative city is a place where people feel they can fulfil themselves, because there are opportunities….. It is a place where people can express their diverse talents which are harnessed, exploited and promoted for the common good (2012, p. 122).' |
| UNESCO* (UNESCO, 2020) | UNESCO Creative Cities Network (UCCN) 'strengthens cooperation with and among cities that have recognized creativity as a strategic factor of sustainable development on an economic, social, cultural and environmental level. (UNESCO, 2020).' |

*It's the definition of UNESCO's Creative City Network. However, the definition reveals the expectation from a creative city.

In the creative city approach, cultural activities are indispensable aspects of the economic and social functions of a city. For cities to become attractive for the creative workforce and to attract investment through their cultural facilities and social

environment, they must have a solid social and cultural infrastructure. Factors such as location, natural resources and market access that nurture urban dynamism in the traditional approach are replaced with creativity (UNCTAD, 2010). In this transition period caused by globalization, cities seek for new ways of progression in order to attract investment. According to Landry (Landry, 2000), this change experienced in many cities leads to different outcomes in each region. While Asian cities are growing exponentially, the traditional industries in Europe are gradually melting down, and the added value generated in cities is being produced thanks to the intellectual capital added to the products, processes and services.

Charles Landry (2008) emphasized that the key capital of cities in this process is their dwellers. Similarly, Florida (Florida, 2005) draws attention to the fact that the presence of a strong creative class in a city also brings about a great potential for that city. The 'creative class' approach suggested by Florida focuses on humans in a period when creativity is gaining importance. Cities trying to adapt to the new economical order that is evolving from a company-centric approach to a human-centric one also strive to provide a favorable environment not only for people but also for investments. Florida put forward a set of indicators for use in determining if a city is attractive for the creative class. Cities with these indicators become attractive for creative people as well as for investments. Florida breaks the concept of creative class into two groups: super-creative core and creative professionals. The super-creative core consists of people fully engaged in creative process such as artists, scientists, designers and media workers, while creative professionals include knowledge-based workers. Cities with a creative class enjoy a strong position in terms of both culture and art infrastructure and creative economy. Florida (2002b) uses a 3T model, namely Technology, Talent and Tolerant, to better understand the new economical geography of creativity. The 3T describes Technology as innovation and high technology industry, Talent as bachelor's degree and graduate degrees, and Tolerant as openness, inclusion and diversity. In his study on the relationship between human capital and high-tech industries, and the geography of Bohemia, Florida determined a set of indicators. With the Bohemian index, he looked at the ratio of specific communities such as writers, designers and artists to the general population. With the human capital, he examined the talent, i.e. the ratio of people with higher education. Florida used the gay index and melting pot index as an indicator of diversity/openness. Finally, under the high-technology

industry, he looked at the hi-tech pole index. Areas with high scores in terms of the above-mentioned indicators are concentrated only in certain locations, which are attractive areas for high human capital individuals. He suggested that areas with a concentrated community of Bohemians offer favorable conditions for all types of creative people including those working at high technology industries. Therefore, he argues that these areas provide the necessary conditions for the emergence, development and growth of the high-technology industries (Florida, 2002a). Florida's approach is criticized from many aspects, including poor correlation between creative class and economical growth based on diversity (Markusen, 2016; Musterd & Ostendort, 2004; Peck, 2005). Similarly, Hall (2004) suggests that big cities have been the hubs of creativity and innovation throughout the history. However, Hall argues that the way they emerged and grew did not occur unexpectedly.

In the creative city approach, another factor that is as important as the profile of city dwellers is the physical infrastructure and environment that can meet the needs of the city dwellers. Landry (Landry, 2000) highlights the importance of public spaces where people can causally come together, meet and engage in exchange of ideas. Having people from all ages, ethnicities and classes together in 'neutral territory' areas is important in order to create a common identity. Furthermore, presence of public venues such as museum, theater, cinema, cafe and library creates a space for the development of creative thinking and actions. Physical meeting places such as conference and seminar halls, clubs and bars, and public cyberspaces made possible by Internet make positive contributions to a city. Additionally, research and educational organizations such as educational institutions, universities, research centers and government agencies; parks, walking and cycling tracks, means of transportation such as public transportation facilities are considered to be the components of physical infrastructure that creative cities must have. The Cultural and Creative Cities Monitor within the European Commission highlights the features of cities in terms of cultural vibrancy, creative economy and enabling environment to measure cultural, social and economical vibrancy of cities. 29 indicators that were determined based on these three main domains draw attention to the presence of non-physical features of cities as well as physical ones when determining the cultural and creativity level of the city.

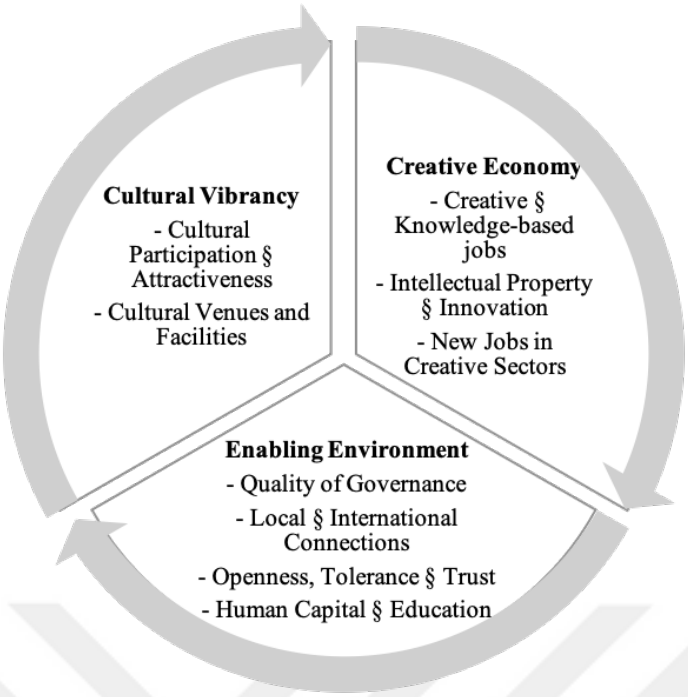


**Figure 2.1 :** Cultural and Creative Cities Monitor's conceptual framework and indicators for monitoring cultural and creative cities (European Commission, 2019a).

Creative cities are working on many different possibilities to unlock their potential. Some cities use cultural activities related to cultural heritage, performance and visual arts as a potential to create cultural experience points for both visitors and city dwellers. In creative cities, culture and art capacity is used to improve urban livability, social adaptation and cultural identity, which is a common method related to the use of culture and creativity (UNCTAD, 2010). 'Creative City Network' was created by UNESCO in 2004 to help cities develop urban development strategies based on their characteristic features. This network, which gathers 246 cities from 80 countries, aims to support sharing of good practices, developing partnerships for creativity and cultural industries, improving engagement in cultural life and integrating culture into urban development plans. UNESCO recognized 7 thematic frameworks to better determine urban development goals. The 7 thematic frameworks, consisting of Crafts and Folk Art, Design, Film, Gastronomy, Literature, Media Arts and Music, provide a basis in determining which features of can be potentially used. The diversity in this selected thematic framework draws attention to the fact that creative cities can exist in various forms and they can use their special features for this purpose.

## 2.4 Creative Clusters

The concept of clustering has long been a debated in the urban literature. Spatial clustering was first discussed along with Marshall's agglomeration economies concept. Marshall (1920) put forward some basic factors such as exchange of knowledge and ideas, pooled labor market, transport and operating costs that are linked to co-existence of similar firms. Marshall's study is especially important for being the first to address the unmeasurable feeling of 'in the air' that was created by the cluster atmosphere and the 'tacit knowledge' which is an outcome of face-to-face communication. Porter argues that competitive advantage created by coexistence of similar activities leads to economic prosperity. The cluster approach, which was described as 'geographic concentrations of interconnected companies and institutions in a particular field' by Porter (1998, p. 78), addresses the industrial and commercial clustering rather than clustering of creative business and activities. In the literature, the cluster approaches within the context of creative cities have been dealt under different names, i.e. neighborhood, district, quarter, milieu or cluster. These concepts are often used interchangeably. However, these approaches may sometimes possess some internal differences. For instance, the human-centric 'millie' concept refers to a specific environment without indicating boundaries. The area mentioned in this definition, which puts more emphasis on its socio-spatial aspect, may contain a quite large environment. The terms 'district' or 'quarter' that are used for describing a more specific area are related to governance of spatial territory. Cluster is a socio-spatial assemblage of people, buildings and activities without any necessary center, boundary or scale (Wood & Dovey, 2015, p. 54). Cluster approach is more definitive in terms of coverage, although the boundaries it indicates are not clear.

Cluster approach associated with the creativity concept has been debated especially since the late 1990s and the early 2000s (Bagwell, 2008; Crewe & Beaverstock, 1998; Currid, 2007; Drake, 2003; Evans, 2009a; Florida, 2002b; Heebels & Aalst, 2010; Pratt, 2000; Scott, 2004; Sunley, Pinch, Reimer, & Macmillen, 2008). Evans (2009b) describes creative clusters as agglomeration zones where creative and artistic production take place. Creative clusters are often used synonymously with cultural clusters. However, the creative clusters approach differs from the culture-oriented urban development policies which were developed in the 1970s to solve the problems faced by industrial cities. In the cultural quarters/clusters approach, culture was used

for zoning, branding and regeneration practices in accordance with the conditions of the time. Yet, the creative cluster approach aims for development via knowledge economy. Urban design quality is an important topic in creative clusters which require mixed use and accommodate diversity (Evans, 2009a). The focal point of creative clusters is the creative industries. The aim is to develop these industries which can then be used as a driving force for other industries. Within the framework of the approach that he considers as a quarter, Evans (2009b) draws attention to the differences between cultural and creative clusters. According to Evans' classification, creative quarters refer to a broader approach compared to that of cultural quarters. Considering the social and cultural aspects of the two approaches, while development strategies are created via cultural features in cultural quarters which are usually in historic and heritage district; in creative quarters, the goal is a multi-dimensional approach where each different feature, including culture, is used to improve the creative environment. The differences between the two approaches according to Evans are summarized in the following Table 2.2.

**Table 2.2 :** Rationales for cultural and creative industry quarters (Evans, 2009b, p. 39).

| Rationales | Cultural Quarter | Creative Industry Quarter |
|---|---|---|
| Economic | Local economic development<br>Visitor economy<br>Branding<br>Zoning<br>Culture and regeneration | City-region economic development<br>Knowledge economy<br>Creative tourism<br>Production chain<br>Innovation spillovers |
| Social | Identity<br>Mono-use<br>Ethnic quarter | Mixed-use and -tenure<br>Diversity<br>Urban design quality |
| Cultural | Historic preservation<br>Conservation, crafts (skills)<br>Festivals<br>Cultural City | Creativity<br>Design and architecture<br>Showcasing /trade fairs<br>Creative City |

What is suggested in creative clusters is a non-commercially linked coexistence that is embedded much deeper into local urban environments rather than the agglomerated businesses suggested in Porter's cluster approach (Pratt, 2000). Creative clusters that are connected to the city with invisible ties are substantially located at the inner city. According to Evans (Evans, 2009a), historic quarters, socio-cultural entertainment

centers, museum quarters, multi-media and design districts or music and theater quarters are among the areas in the inner city that creative clusters can be located at. (Evans 2009). Hutton (2004) attributes creative clusters being located at inner city to some features of the inner city. Revival of production in city centers, reconstruction of industrial zones and central business districts (CBD) and the innovative milieu led by economic and social agglomeration in the city center are the factors that result in creative clusters being located in these areas. Additionally, presence of museums, theaters, galleries, cafes, restaurants and historic buildings in the city center makes it more advantageous position creative clusters in the city center (Hutton, 2004). However, clusters can also be located at different areas such as technology valleys, innovation hubs, media centers and knowledge precincts within the periphery of the city as well as the city center (Gornostaeva, 2008). In this respect, size of creative clusters can vary. Sometimes it refers to a certain area within a given neighborhood, and sometimes it may cover a whole district. For economic development, both approaches aim to accomplish social and physical policies that exist in harmony with each other to celebrate diversity and differences.

Creative clusters are geographically connected to daily urban life as a result of being often located in the city center. Creative clusters are important for cities in terms of providing an attractive local environment for developing new ideas (Heebels, 2006). As suggested by Florida (2002b), factors such as cultural facilities, innovative areas, urban equipments and the quality of the built environment in the city center make it attractive for investments and creative talents. In this respect, such urban-equipment intensive locations affect the business and life preferences of creative workers. Similarly, Drake (Drake, 2003) points out to the fact that areas with cultural facilities such as cafes, bars, restaurants and museums create opportunities for creative entrepreneurs to have informal meetings. The close relationship that creative clusters have with the urban area makes them a subject for urban development strategies and urban regeneration.

With the arrival of creative industries, areas housing creative clusters gain a symbolic meaning and develop in terms of infrastructure. Thus, they attract a lot more creative entrepreneurs (Mommaas, 2004). The physical and communication infrastructure provided by such places where culture, tourism and entertainment activities coexist

facilitates the development of other activities as well (Mommaas, 2004; Zukin, 1987). These processes also provide the local environment with positive benefits.

Crewe and Beaverstock (1998) suggest that in order to use creative clusters as a tool for economic development, 3 types of interconnected economies should simultaneously develop in the city. First of these economies is the firm embeddedness referring to the relationship between the inter-firm network and consumers, which enables 'tacit knowledge' between creative entrepreneurs, similar to previous approaches. This interaction usually takes place during non-working hours at cultural interaction areas such as restaurants, bars, museums, theaters and studios. This situation motivates cities to make investments to support cultural and recreational infrastructure. The second one is the economy of culture and consumption, which is shaped by the first economy. This economy essentially develops the urban economy and effectively improves the physical appearance of the city by attracting more visitors. These improvements are influential not only on creative entrepreneurs but also on high-income city dwellers and communities such as tourists, students and young avant-garde. The third type of economy is the cultural organization of the night time economy. Presence of night clubs and underground venues in the city is an indication that the city allows sub-cultural and non-mainstream communities to develop. This situation, which undoubtedly adds authenticity to the city, helps the city to create its unique character. Combination of these economies not only supports the development of local economy through creative clusters, but also improves the urban image and help the city form an identity (Heebels, 2006).

The effects of creative clusters on the image and built environment of a city caused them to be used as a tool in regeneration projects. Creative cluster approaches can often be seen in regeneration projects intended for old industrial areas in the city center. The fact that old buildings in the city center are a part of the city's historic identity, the atmosphere they create, physical facilities they offer and relatively lower rental cost make them attractive for creative workers (Mommaas, 2004).

The formation process of creative clusters may take place in various forms. Some creative clusters have come into existence spontaneously and they have been supported through particular policies. However, some of them have been used by public entities as a tool for regeneration or redevelopment projects (Chapain & Sagot-Duvauroux, 2020). Santagata (2002) emphasizes that to use creative clusters successfully in these

projects, the solution must be developed out of a self-generated long incubation period and associated with the local culture. The author also points out that any clustering that is carried out in a simple way without considering its socio-economic aspect will fail. With their observations on Sheffield, Brown, O'Connor and Cohen (2000) address the effects of the top-down approach in forming a creative cluster. The local administration attempted to create a 'creative buzz' by adding small shops, bars, restaurants and creative businesses into the creative cluster. Yet, newly added facilities did not prove effective enough to bring the creative entrepreneurs to the cluster, thus the intended 'creative buzz' developed spontaneously in a nearby street off the cluster. There also successful examples that developed spontaneously and triggered social, economic and organizational processes through the cultural success they achieved. Montmarte, Rive Gauche and SoHo were the creative and innovation areas that developed spontaneously without a planning in the 1900s, 1960s and 1970s, respectively (Mommaas, 2004; Zukin, 1982).

Zukin (1982) emphasizes that in order for the creative clusters to be successful in terms of urban development they must have the necessary critical infrastructure. This infrastructure consisting of critical mass of creative producers, consumers and activities increase the probability of cluster to be successful. Additionally, coexistence of different functions that contain both services and production and coexistence of people from different socio-economic milieus extended over a certain period of time must be considered in order to create a living creative cluster (Brown et al., 2000; Crewe & Beaverstock, 1998; Heebels, 2006). Zukin (1991) warns against the risk that the economic value created by culture and creativity may be seized by real estate agencies and multinational companies when the creative clusters that meet these conditions discontinues to be a place of production and become a consuming place instead. This situation causes that area to lose its creativity and local character.

### 2.5 Creative Hubs

Hub concept was firstly used in transportation and logistics studies. The term "Hub and Spoke," which is used to understand network structure in transportation, is used in urban agglomeration economies as "Hub and Spoke" industrial zones. Markusen (2016) states that cities and regions are trying to generate new incomes in the face of new developments over transportation and information. In this context, Markusen

describes 3 new additional industrial districts that emerged after the digital revolution. One of them is ‘hub and spoke' industrial districts that revolve around one or more dominant, externally oriented firms (Markusen, 2016, p. 293). The first use of the term CH in the creative economy context is in London Development Agency’s (LDA) Creative London document (London Development Agency, 2003). Unlike the earlier examples, the definition of CHs differentiate it from the creative cluster approach for the first time and focuses on their internal characteristics and services they provide (Virani, 2015).

While there are certain core concepts universally associated with CHs, such as collaboration, networking, co-working, shared space, entrepreneurship, and incubation, there is no absolute consensus on their definition. One of the first was attempted in the UK; the LDA characterizes CHs as “providing a space for work, participation, and consumption” (2003, p. 33). Considering the larger effects of CHs rather than treating them merely as incubators for small business, the LDA describes a strategy to support CHs as they help creative industries develop. Similarly, the Greater London Authority (GLA) supports such workplaces as a policy for their socio-economic benefits and impact on business growth. The GLA, focusing on their important role in the provision of workspaces and support for start-ups and small businesses, develop reports and programs to better utilize these roles in the generation of socio-economic benefits to surrounding communities (Greater London Authority, 2014). Its report highlights that these types of spaces are not always obvious and typically have overlapping features, classifying them as incubators, accelerators, and co-working spaces (IACs).

The British Council’s Creative Hub Toolkit (2015) offers six different variants of CHs follow as studio, centre, network, cluster, online platform and alternative. Studio, centre and cluster variants of CHs refer to a specific location such as a co-working space, specific large-scale building or a geographic area with co-located creative individuals and businesses while online platform is virtual. Network is a dispersed group of individuals and businesses, and alternative indicates a new communities, sectors and financial models focused on experimentation.

Hubs claim to encourage collaboration between its members and support serendipitous knowledge necessary for the stimulation and strengthening of businesses and projects. Taking this general definition into account, the term is used interchangeably with other

names such as innovation labs, incubators and co-working spaces (Choudrie, Islam, Wahid, Bass, & Priyatma, 2017), start-up spaces, innovation centers, maker spaces, research institutes (Wagner & Watch, 2017). For this reason, there are also other attempts to clarify this term in general such as 'collaborative community workspace' was used to bring together various forms of shared workspace where freelancers, self-employed entrepreneurs and small businesses operate 'alone together'(Fuzi, 2016).

Despite the differing terminology, all these variants of CHs generally have one feature in common: they offer environments designed to suit small and micro businesses with varying levels of business development (Greater London Authority, 2014). Most of the participants in the creative industry are start-ups, freelancers, or creative individuals, whose needs vary accordingly.

The conception of the CH is associated more with its social aspects, such as its user relationships, support mechanisms, and the potential opportunities that it provides than with its physical features. Schuermann (2014), referring to the importance of CHs such as CWSs for young entrepreneurs whose businesses are in the early years of development, claims that CWSs support start-ups and facilitate the transition from solo to employer entrepreneurship by opening up opportunities for partnerships, networking, and mutual support within the wider community. The physical dimension of CHs is also discussed as a part of social infrastructure in CHs. The physical infrastructure and design of these new workplace organizations maximize the opportunities for face-to-face meetings, which makes possible the exchange of tacit knowledge (Moriset, 2014). Although the users of CHs, who are mostly highly flexible self-employed and freelance workers, have the ability to work from anywhere, they strongly prefer to share the same physical infrastructure with similar people. Specifically, human interaction, face-to-face communication, and serendipitous discovery are critical for such professions and cannot be achieved without physical structure (Pratt, 2000). Moreover, the opportunity to work from anywhere can easily result in isolation and an inability to build trust and relationships with others (Spinuzzi, 2012); social and professional interaction in places like CHs reduces these risks (Mariotti, Pacchi, & Di Vita, 2017). Informal and formal relationships in CWs also provide a basis for organization (Blagoev, Costas, & Kärreman, 2019), providing networking and tacit knowledge opportunities that are as important as the physical facilities in these places. From an academic perspective, Landry (Landry, 2000)

classifies these vital opportunities as either ‘concrete factors’ or ‘intangible factors’. Similarly, discussing the services that CHs provide for their members, Virani (2015) emphasizes the importance of both hard services (i.e. physical infrastructure such as desks for rent, online services, studio space, labs, meeting rooms, machinery, and incubator units) and soft services (i.e. informal and formal networking opportunities, knowledge exchange, business support, collaboration, transactional relationships, and participation in specific communities of interest).

CHs are different than traditional workplaces. Their activity locates in between work and home. They comprise informal gatherings, social interactions, and learning processes, making them more than a traditional workplace. They provide an atmosphere and a spirit (Moriset, 2014) where members of the community meet, interact, experiment, ideate, and prototype new solutions (Fuzi, 2016, pp. 4-3). Although the main concept is working alone together (Spinuzzi, 2012), the value is created collectively by the community (Bason, 2010). For this reason, labels such as ‘collaborative community workspaces’ (Bates, 2011) or ‘work-learn-play third spaces’ (Waters-Lynch, Potts, Butcher, Dodson, & Hurley, 2016) emphasize the motivation behind while describing them. In this context, CHs can be considered a place with physical and social services where freelancers, entrepreneurs, and micro-SMEs within the creative, cultural, and tech sectors can work, collaborate, share, experience, network, develop projects together, and create ideas. Co-working spaces, incubation centers, and makerspaces, and fablabs fell under this definition and they provide an atmosphere and a lifestyle for its users/members.

### 2.5.1 Co-working spaces

The first co-working space (CWS) emerged as an accepted consensus when computer engineer Brad Neuberg organized Spiral Muse in San Francisco in 2005 (Merkel, 2015). The idea came from a personal experience when Neuberg decided to be a freelancer and asked a friend for an affordable office space (Fuzi, 2016; Jones, Sundsted, & Bacigalupo, 2009). He aimed to avoid unproductive work life, social isolation, and distraction, which can be encountered while working from home office (Merkel, 2015). After setting up space for co-working order for specific days of the week for a year, it replaced to Hat Factory in 2006 (Fuzi, 2016; Spinuzzi, 2012).

Small, independent workplaces for freelancers and self-employed workers are the first examples of CWS that emerged in the mid 2000s. IndyHall in Philadelphia, New Work City in New York and Betahaus in Berlin are examples of this type of communities (Avdikos & Merkel, 2020). Brad Neuberg describes his expectation from a working environment such as 'the freedom and independence of working for myself along with the structure and community of working with others.' For his purpose, he describes the CW concept as a new kind of space to support the community and structure (Coworking.com, 2005). Similarly, Merkel (2015) refers to the working alongside side of co-working concept. It's a practice of working in flexible, shared work settings where desks can be rented on a daily, weekly or monthly basis. DeGuzman and Tang (2011) also refer that people working in CWSs don't necessarily work for the same company or on the same project. The concept is sharing the working space and resources. Gandini describes the co-working concept more broadly including all its features. Within this context, CWSs are shared workplaces utilized by different sorts of knowledge professionals, mostly freelancers, working in various degrees of specialization in the vast domain of the knowledge industry. Practically conceived as office-renting facilities where workers hire a desk and a wi-fi connection these are, more importantly, places where independent professionals live their daily routines side-by-side with professional peers, largely working in the same sector – a circumstance which has huge implications on the nature of their job, the relevance of social relations across their professional networks and – ultimately – their existence as productive workers in the knowledge economy (Gandini, 2015, pp. 194–195).

Despite the various definition of CWSs, they all focus beyond the physical characteristics of it while describing it. It is an atmosphere, spirit, or a lifestyle (Moriset, 2014), a philosophy or a movement (Reed, 2007), a state of mind (Kwiatkowski & Buczynski, 2011), and a social movement (Jones et al., 2009). Capdevila (2013) remarks on the open sharing environment for independent professionals. User profile of CWSs are mostly location independent professional on creative jobs. They are mostly freelancers, self-employed and remote workers (Clifton, Fuzi, & Loudon, 2019; Spinuzzi, 2012), knowledge professionals (Gandini, 2015), and small-scale entrepreneurs (Yang, Bisson, & Sanborn, 2019). There are also other approaches to call them "lonely eagles" which the terms used by Phil Burgess (Moriset, 2014) for the first time that refers to "a knowledge worker, who can live and

work anywhere, primarily because of advances in telecomputing technologies" (Young, 1997). They are most likely to work mobile, multi-locational, remote, flexible, distributed, and virtual. As a result of this mobility, they have a chance to choose where and when they work (Kojo & Nenonen, 2016). Figure 2.2 summarizes the components of co-working activity.

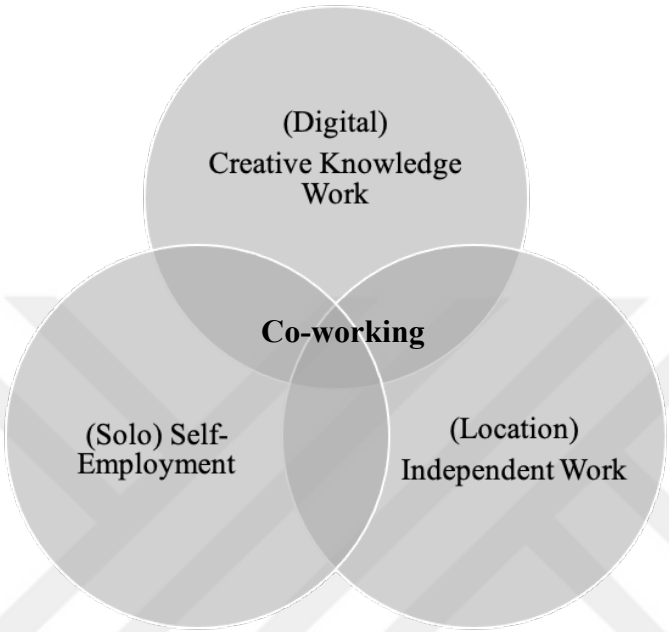


**Figure 2.2 :** Co-working concept (Waters-Lynch, Potts, Butcher, Dodson, & Hurley, 2016, p. 26).

Profile of the coworkers associate with the changing nature of work, and financial and economic reasons. Firstly, development in information and communication technology (ICT) allows to maintain works more mobile and location-independent. Workers can create, share and transfer their outputs in any location with the help of laptops and mobile phones. In this sense, creative jobs are more advantageous to complete task in different work spaces. Secondly, there is financial and economic dimension of CWSs. Shared equipment and rent are cost saving. Precarious nature of self-employed jobs and knowledge works is a driving factor for making more flexible decisions. Therefore, the proliferation of CWSs picked up speed after the economic crisis of 2008 (Clifton et al., 2019; Gandini, 2015; Merkel, 2015). After the crisis, willingly or necessarily more people changed their traditional work set up and started self-employed jobs. The number of freelances and entrepreneurs has increased. Similarly, companies led to reduce their costs and some of them rented their empty

spaces as CWSs. This trend also increased the proliferation of 'freelance economy' (Capdevila, 2014; Clifton et al., 2019).

The 'shared office' feature, which emerged out of the shared use of physical infrastructure by CWS, is often confused with 'serviced offices'. Service offices, also referred to as business centers, executive suites and telecenters, are based on a model which involves shared use of physical spaces and flexible rental conditions, and in this regard, they are similar to co-working spaces (Kojo & Nenonen, 2014; Waters-Lynch et al., 2016). Emerging in the 1960s, this model enables individuals to access offices in key, prestigious parts of the city which they would otherwise be unable to afford. However, some characteristics of serviced offices set them apart from CWSs. "The first is the profiles of the original coworkers, the second is the centrality of social interactions and the third the aesthetic design of the spaces themselves" (Waters-Lynch et al., 2016, p. 9).

There is also psychological side of the co-working activity. Although there is a flexibility at work for self-employed and freelancers, they still need to get socialized to avoid social isolation (Moriset, 2014). There are also several other reasons for independent workers and freelancers to choose CWSs as their workspace. Bilandzic and Foth (2013) highlight the social learning side of co-working, which comes from sharing the same environment for creative activities. Collectivity, collaboration and networking come into prominence while describing CWSs besides the physical services that they provide. Face-to-face interaction in CWSs or simply sharing the same working environment is the catalyzer of tacit knowledge exchange (Capdevila, 2014; Pratt, 2002). CWSs provide knowledge transfer, informal exchange, cooperation and forms of horizontal interaction with others and business opportunities for its members (Mariotti et al., 2017). It creates a collaborative community which generates from sharing the same environment with other individuals. It also affects fostering information exchange and creating new business connections causing by the geographical proximity in those places (Spinuzzi, 2012).

Lange (2011) considers those spaces as bottom-up spaces and therefore user profile of CWSs, their approach and activities become essential. CWSs reflect the 'collective-driven, networked approach of the open-source idea translated into physical space' (Lange, 2011, p. 202). Bouncken and Reuschl (2018) underline the importance of high-level autonomy in CWSs, requiring a non-hierarchical working concept. In this

sense, sharing the same working environment with like-minded people (Schultz, 2013) can be considered to flourish the intensity and openness level, which makes it advantageous to work from a CWS.

The number of CWSs is now spreading around the world rapidly, and most major cities have CWSs. Moriset (2014) views next-generation working spaces such as CWSs emerging in the city as a component of the creative city strategies formulated to adapt to the digitalized economy and the changes in the economic geography of the city. A quick glance at the distribution of CWSs around the world reveals that most of them are located in the centers of those cities that rank the highest in the list of creative cities. According to the global survey conducted by co-working magazine deskmag.com, the estimated number of CWSs in 2020 is 26.300. Globally, it's estimated that 2.680.000 people will be working from CWSs by the end of 2020 (Foertsch, 2019). The co-working market has a growing trend. The average annual growth rate for the years between 2011-2017 is 58% for this new phenomenon.

CWSs are spread all over the world. The CWS concept also changes in response to this growth. During this process which can be called the second wave, big office and real-estate development companies such as Regus, WeWork and The Office Group have engaged in the CWS development business. This situation also caused changes among the first users of CWSs. Freelancers and self-employed workers with good financials as well as large corporations such as Microsoft and Amazon began to take their place among the CWS users with this new wave (Avdikos & Merkel, 2020). Development of the CWS concept also causes new concepts such as co-living to appear. Co-living takes the CWS concept one step further by combining shared residential apartments with the co-working activity. Global CWS providers are developing co-living environments designed for small start-ups and solo entrepreneurs (Fast Company, 2015; Waters-Lynch et al., 2016).

According to the largest database for CWSs (Coworker.com, 2011) there are 5.5 million users in more than 15.000 CWS in 172 different countries. Biggest metropolitan cities such as New York (240), London (238), Hong Kong (170), Berlin (116), Tokyo (111), Barcelona (128) host CWSs. It's not only a popular concept in North America and Europe. Asia hosts 4512 CWSs locations while North America hosts 3674 locations, and Europe hosts 4666 locations. It's an emerging but well-known concept in Africa. It hosts 719 CWSs locations.

### 2.5.2 Incubation centers

Business incubation centers are one of the most important components of an entrepreneurship ecosystem. These centers which will be referred to as incubation centers in this study are also given many different names, including technology/business incubators, innovation/technology centers, science/research/technology parks, and business/seed accelerators (Lamine et al., 2018). An incubation model, in its broadest sense, is a support mechanism which is used to allow start-ups and entrepreneurships to put their ideas into practice, increase their chances of survival, add value to them and accelerate their development (Mian, Lamine, & Fayolle, 2016; Pauwels, Clarysse, Wright, & Van Hove, 2016). In this context, incubation centers not only offer physical services such as provision of shared office, but also non-physical services such as business assistance services, business services (Hackett & Dilts, 2004), networking, referral for access to professional services, provision of resources and capital. These services are referred to as hard services and soft services. Incubation centers make the connections between technology, know-how, entrepreneurship capabilities and capital (Mian et al., 2016). Being a strategic tool of creating and developing business, incubation centers gain increasingly more importance as a new type of workspaces offering hard services and soft services in the entrepreneurship ecosystem (Fuzi, 2015).

Incubation centers offer different programs for start-ups in different stages. This makes it difficult to define them based on a single characteristic. However, they share some common characteristics in terms of their objectives and services. Incubation environment, in a similar way to its literal meaning, provides a well-protected breeding environment which allows start-ups to access the resources, services and referrals that they need during their formation and growth (Sagath, van Burg, Cornelissen, & Giannopapa, 2019). Sagath (2019) summarizes the general characteristics of the services provided by incubation centers as follows:

a. Providing access to facilities and financial resources (Access to facilities, Access to funding)

b. Facilitating networking, brokering, and collaboration (strategic partnering and networking, alumni networking, brokering, collaboration with start-ups)

c. Enhancing regional, national and industrial embeddedness (clustering, national technology policy, market credibility, public relations)

d. Supporting technology and product development (Technology and product development)

e. Facilitating technology protection and transfer (Intellectual property, Licensing of technology, Rules and procedures)

f. Supporting venture development (Business modeling, Mentoring and Business support, Training, Progress monitoring)

First examples of incubation centers emerged in the 1950s in the U.S. The Stanford Research Park established in 1951 and the Batavia Industrial Centre established in 1959 in New York are the first-ever incubation centers in the modern sense (Mian et al., 2016; Mungila Hillemane, Satyanarayana, & Chandrashekar, 2019). The way incubation centers are called, the location where they are established and the time when they are established can offer key insight into their scope of activity. This is because the approach to incubation centers went through a significant transformation, both in terms of scope and content, until the 2020s since their establishment in the 1950s. This transformation can be divided into and examined in 3 periods.

During the period from the 1950s to the 1980s, incubation centers were founded to primarily carry out economic reorganization and increase employment. Therefore, they focused on providing high-potential start-ups with physical and financial sources. Assistance provided for this purpose included primarily affordable office space and shared services. This approach, which involved use of constructions such as Tech Gardens in Science/Research parks, later evolved into networked commercialization enablers.

Examples from the second period between the 1980s and 2000s were centered around value-adding features such as mentoring, networking and commercialization. This period also saw the rise of virtual incubators. A remarkable increase was also seen in the number of incubation centers during this period. While only 20 research parks existed in the U.S. in the 1980s, the number of incubation centers reached 600 and the number of research parks reached 160 by the 2000s. During the 1990s, a new incubation model began to show up. With this Internet-based virtual new incubation model, start-ups working on ICT in particular were supported to help them grow their

business. Incubation center mechanisms evolved and gave birth to a new form of incubation, i.e. "accelerator." Development of the digital economy was the key factor which resulted in this change (Mian et al., 2016).

From the 2000s onwards, incubation centers went through significant changes and began to turn into mixed-use science parks. Incubation centers focusing on specific areas and innovation centers integrated into science parks are among the examples from this period. These new examples provide more tangible high value-added services beyond mere office space and financial support. These next-generation models of incubation also offer services such as aid in evaluating different market opportunities, access to knowledge intensive services, product development support, access to knowledge, expertise and networks of entrepreneurs and provision of entrepreneurial finance. Additionally, they often focus on knowledge business services. Incubation centers are now positioned quite differently compared to the time when they first appeared (Pauwels et al., 2016). The 'accelerator' model also showed up during this period, and it has been in high demand since the mid 2000s. Y Combinator of Massachusetts founded in 2005 is the first accelerator ever. The number of accelerators then saw an exponential increase. In 2013, a total of 213 accelerators existed which assisted 3,800 start-ups throughout the world (Clarysse, Wright, & Hove, 2015). In 2016, there were 1,250 incubation centers in the U.S. alone, and most of them had global operations.

The most important reason why the number of incubation centers in the U.S. increases even more every year is the assistance provided by national and state organizations (state policies). Actions taken to avoid losing industrial competition in the 1980s led to steps being taken that encouraged commercialization of technology through developments in the corporate landscape. As a result, many research universities were established, research/science parks were built, and incubation programs were created with collaboration of the public and private sectors. All of these support actions helped start-ups and small-scale enterprises create employment opportunities and make greater contribution to the national economy and promoted the development of an entrepreneurial ecosystem.

Development of incubation centers gained speed in not only the U.S., but also in the remaining parts of the world and their number quickly increased. The first science parks in Europe were founded in the United Kingdom and Sweden during the 1960s.

In the 1970s, only 50 science parks existed in total across countries such as France, Germany, Belgium, Japan, Korea and Taiwan. (Mian et al., 2016). The total number of science parks around the world exceeded 1,000 in 1990. In 1992, the top ten countries with the highest number of science parks included USA (398), Germany (106), Japan (104), China (52), the UK (50), France (35), Australia (33), Canada (31), Sweden (15) and Russia (14) (Lindholm Dahlstrand & Lawton Smith, 2003).

Germany had more than 350 technology and business incubation centers as well as science parks and similar institutions in 2020. These centers had 15,660 innovative start-ups and SMEs as tenants in 2019 alone. An additional 4,980 start-ups were founded in 2019. Survival rate of the start-ups founded with the support from these centers is 99% (BVIZ, 2021).

The United Kingdom is the second country accommodating the most incubation centers only after the U.S.. The UK Science Park Association (UKSPA), a national association for science parks, technology incubators, innovation centers and other innovation locations and fields, has 5,800 member companies. Of them, 4,000 are located in science parks, while 1,300 are located in innovation centers. 70% of them were incorporated after 2000. 50% of them are small enterprises with less than 50 employees. And, 26% of them employ 1-5 persons. These centers provide tenants with various facilities and services, including incubation services, child care facilities, meeting room facilities and access to specialist financial advice (UKSPA, 2019).

Based on national and regional indicators from different countries, France had 113 incubation centers (2010) and Canada 120 (2012), Brazil 400 (2008), Mexico 191 (2006), China 670, Japan 190, India 110, Singapore 120, Malaysia 110, and Australia 80 (2009) (Mian et al., 2016). Increased number of incubation centers emphasizes their importance as a strategic tool for economic development and innovative growth (Al-Mubaraki & Busler, 2014). However, these centers are given various names and in some cases, only incubation centers which are part of certain international or national organizations are included in the count. This makes it difficult to come up with an exact number of incubation centers.

Incubation is a process which consists of different stages, and the stages which entrepreneurs go through are given different names. The first one is the idea-development stage, and it is called pre-incubation. The second stage is called

incubation and acceleration, while the third stage is called post-incubation, consolidation, expansion and growth. Some incubation centers provide support in connection with all of these stages. While others support only certain stages of this process (Mian et al., 2016).

**Table 2.3 :** Incubation process (Adapted from (European Commission, 2010) and (EU & OECD, 2019)).

| | Selection Process | Pre-incubation | Incubation | Post-incubation |
|---|---|---|---|---|
| **Length of support** | x | Duration of the phase differentiate in-between incubation centers but the whole process usually takes 1-5 years | | |
| **Objective** | | Start-up Creation | Support business creation and development at early stage | Expansion |
| **Targeted Candidates (Tenants)** | Open on-going admissions or focus and criteria set by the incubator | Potential entrepreneur with an idea | Start-ups | Companies at maturity phase |
| **Provided Services During the Phase** | x | -Assessment of the idea<br>- Establishing a Business Plan<br>-Establishing a Business Model<br>- Training | -Access to finance<br>- Coaching and Mentoring<br>- Hosting<br>- Specific Training<br>- Commercialization<br>- Advanced Business Planning<br>-Networking<br>-Managerial support | -Innovation Diagnostic<br>- Internationalization Support<br>-Technology Commercialization<br>- Clustering<br>- Business Development<br>-Networking |

The post-incubation (European Commission, 2010) or incubation stage (Mian et al., 2016) of incubation centers is sometimes referred to as "accelerator." Accelerators came into existence in the 2000s as a response to the deficiencies of the incubation programs that had been around during the previous period. After the first accelerator (Y Combinator) that emerged in 2005 in the U.S., this new type of organizations quickly spread around the world and allow start-ups to gain acceleration by providing them with training and mentorship on a specific subject within a particular timeframe under an intensive program (Pauwels et al., 2016). This is one of the key characteristics that set accelerators apart from other incubation models. Following a fairly competitive application process, intensive assistance is provided to selected startups within a

timeframe that is limited to 3-6 months. This assistance may include business skills training, intensive mentoring and networking activity support (Madaleno, Nathan, Overman, & Waights, 2018). The main objective of accelerators is not providing physical assistance, such as provision of office space. Furthermore, for funding sources, accelerators focus on business angels and small-scale individual investors instead of venture capitalists (Clarysse et al., 2015). There are more than 7,000 business incubators and accelerators around the globe (Cremades, 2019).

Incubation centers drive regional and national innovation and economic growth. In addition to forming a good starting point for technological, innovative and commercialization actions, they are also the pillars of long-term social and economic development (Tsai, Hsieh, Fang, & Lin, 2009). Situated at the core of new wealth-creating industries, incubation centers are utilized by universities, policy makers and incubators as a tool to foster entrepreneurship and drive innovation. Infrastructure developed with the contribution of incubation centers promotes economic development by providing a sustainable competitive advantage (Aernoudt, 2004; Sagath et al., 2019). Especially those incubation centers established by the public sector are considered as tools that can enhance entrepreneurship and contribute to regional economic development (Pauwels et al., 2016).

International organizations such as the Organization for Economic Cooperation and Development (OECD, 1997) and the World Bank Group's multi-donor program InfoDev (InfoDev, 2009), establishments such as the European Business and Innovation Network, and European Commission (European Commission, 2002) as well as national organizations such as the United States (US) National Business Incubator Association, the United Kingdom UK Business Incubation and NESTA also drew attention to the effects of incubation centers and innovation programs on economic and social development (Miller & Stacey, 2014).

### 2.5.3 Makerspaces, hackerspaces, fablabs

The maker movement started in connection with the transformation of technology and the changes in production methods. In parallel to widespread access to Internet, personal computers also became more affordable and more portable over time. Increased number and accessibility of open source programs and development of prototyping technologies such as 3D printers which gradually have become more and

more affordable mean that individuals have easier access to design and manufacturing tools. (Wolf-Powers et al., 2017)This has led to creation of maker communities with members who have common objectives, are interested in the same areas and engage in information exchange at a physical space or through an online platform (Dougherty, 2013; National League of Cities, 2016). This maker movement is embodied in spaces which are referred to as makerspaces, hackerspaces and FabLabs (MHFL). Although these concepts do not have distinguishing characteristics, each of them has a unique history.

The concept of makerspace dates back to 2005 when Dale Dougherty founded the MAKE Magazine within Make Media. This concept was used in connection with community workshops where members used shared tools (Van Holm, 2014). The Maker Faire hosted by the White House in 2014 under the Obama administration to support local makers also increased awareness about this concept (National League of Cities, 2016). The first Maker Faire had been held in 2006 in Bay Area under again the leadership of Dale Dougherty (Dougherty, 2012). The British government, which emphasizes the importance of makerspaces and is engaged in various relevant support activities, defines such spaces through their physical presence. “A makerspace is a physical location where people gather to co-create, share resources and knowledge, work on projects, network, and build. ….Their activity promotes development of high-end technology skills needed for prosperity and social mobility.” (DCMS, 2019). In this regard, one of the most common debates about makerspaces involves libraries. Makerspaces are similar to libraries in that makerspaces also enable shared use of sources in a publicly available manner, just like what libraries do. Libraries are gradually turning into venues that support innovative, creative and DIY activities and offer next-generation production equipment such as 3D printers, laser cutters, sewing machines and microcontrollers in an attempt to adapt to and meet today's requirements, improve involvement and enlarge their sphere of influence (Colegrove, 2013; DCMS, 2019; Fourie & Meyer, 2015).

On the other hand, hackerspaces, which involve use of computers and technologies, date back to an earlier time. Although the term "hacker" means someone breaking into computer systems and accessing data that would otherwise be unavailable to them, hackerspaces refer to workspaces where people with common interests collaborate on projects and engage in exchange of information (Van Holm, 2014). One of the earliest

examples of hackerspaces is a homebrew computer club whose members, including Steve Wozniak-the cofounder of Apple-, occasionally met from 1975 to 1986 to work together. With widespread access to Internet, majority of this type of groups began to use online environments. Kostakis, Niaros, and Giotitsas (2014, p. 3) define hackerspaces and their management styles as “physical, community-led places where individuals, immersed in a hacker ethic, are to be met with on a regular basis engaging with meaningful, creative projects.” The term "hacker ethic" refers to a problem-solving, creative approach which produces innovative works.

FabLabs, which stand for Fabrication Laboratories or Fabulous Laboratories, emerged in conjunction with a very specific event. It was found at the Massachusetts Institute of Technology’s Center for Bits and Atoms during the course titled “How to Make (Almost) Anything”. From then onwards, the MIT and Niel Gershenfeld began to disseminate the concept with the funding that they received from the National Science Foundation (Van Holm, 2014). In 2009, the MIT's Center for Bits and Atoms program established the Fab Foundation and published a set of general specifications that a laboratory had to meet to qualify as a FabLab. According to Fab Foundation, “A FabLab, or a digital fabrication laboratory, is a place to play, to create, to learn, to mentor, to invent; a place for learning and innovation. FabLab provide access to the environment, the skills, the materials and the advanced technology to allow anyone anywhere to make (almost) anything” (Fab Foundation, 2019). Anyone who would like to found a FabLab must meet 4 requirements: public access, support and subscribe to the Fab Charter, sharing a common set of tools and processes, participation in the larger, global Fab Lab network. There are 1,750 FabLabs scattered across 100 countries around the world that meet these requirements. (Fab Foundation, 2019).

Even though Makerspaces, Hackerspaces and FabLabs (MHFL) have different names and different origins, they are so similar to each other in terms of their content that they cannot be distinguished from each other. Maxigas (2012) makes an even broader definition, suggesting that all of the workspaces called coworking spaces, innovation laboratories, media labs, fablabs, makerspaces, makerlabs, telecottages, and medialabs are in fact similar spaces.

Colegrove (2013) conveys that these types of spaces are somewhat different from each other. According to Colegrove, FabLabs focus on digital fabrication and are equipped with tools that serve this purpose, such as 3D printers and laser cutters. Hackerspaces

are computer and technology-oriented spaces and are preferred by people working in the digital domain. Thus, Colegrove views users of co-working spaces as extensions of hackerspace users. Colegrove states that hobbyists in hackerspaces switch to co-workingspaces when they want to carry out professional production of an item. According to Colegrove, makerspace is a more comprehensive concept which can accommodate other types of spaces such as hackerspaces, FabLabs and co-working spaces.

There are 3 different databases created by users of these types of spaces around the world. Based on data from Hackerspace.org (2014), there are 2,404 hackerspaces in total around the world. While 990 of them are active hackerspaces, 360 of them are planned to be inaugurated, and the remaining ones are not currently active. A large portion of hackerspaces are clustered in Europe and America continents. A total of 449 hackerspaces exist in Europe, including the Northern Europe. Whereas, there is a total of 267 hackerspaces in the North America. Based on the records of makerspace.com (2021), there are 710 registered hackerspaces in the North America, while the number of hackerspaces registered in Europe is 154. On the other hand, there are only 8 hackerspaces in Africa due to limited technological capabilities in that continent.

Regional researches are being conducted to analyze current state of MHFLs and reveal their potential. It is seen that MHFLs are concentrated in certain countries in the EU. France, Germany and Italy account for 53% of the hackerspaces and FabLabs that exist in the EU. There is a total of 442 hackerspaces and FabLabs in these 3 countries. In the next group, the United Kingdom, the Netherlands and Spain have 162 hackerspaces and FabLabs in total (Rosa, Ferretti, Panella, & Wanner, 2017).

The maker movement is also important with regards to the potential that they can unlock for economic development and the entrepreneurial ecosystem (Hui & Gerber, 2017). Hyperlocal production environment made possible by makerspaces, which are typically located in urban areas, present a significant potential in terms of local entrepreneurship and employment. Cities try to use this environment as a tool to strengthen local economies, achieve workforce diversity and promote creative economies (National League of Cities, 2016). Additionally, as makerspaces create physical proximity, allow similar firms to work in the same environment, offer a pool of qualified workforce and put companies in close proximity to high quality consumers, they inevitably become a subject of urban planning. Many firms gain the

possibility to complete the prototyping process and produce a limited number of their items by using shared tools as they need during their foundation phase. This renders makerspaces an efficient environment for maker-entrepreneurs. Furthermore, the fact that this type of spaces built on the principle of co-working reduces need for transportation, target people with a high level of education and well-paying jobs enables local governments to designate areas for makerspaces in city centers during their urban planning work. Additionally, production capacity of these spaces directly contributes to urban development. These spaces also encourage innovative production, products and processes and improve the skills and technical know-how of people in their regions. Preferring locally produced products will not only help invigorate the local economy, but only develop new export industries and create areas of attraction. Maker ecosystems will, directly or indirectly, improve urban creativity and diversity, create new business opportunities and foster innovation. (Wolf-Powers et al., 2017).

### 2.5.4 International organizations and networks for creative hubs

CHs represent a relatively new subject in the academic literature and in the agenda of policy makers and international, national and local organizations. CHs are usually addressed as part of other subjects such as 'creative economies' and 'culture and creative industries'.

Various works carried out in the UK played a key role in bringing the concept to its current form. The term CH was first used in a document drawn up by the LDA in 2003 (London Development Agency, 2003). In the broadest sense, CHs are defined as follows: "they provide a space for work, participation and consumption" (London Development Agency, 2003, p. 33). However, the concept of CHs will need to be evaluated by other organizations in the coming years. Works carried out in the United Kingdom in relation to the concept of CH are being typically performed under the leadership of the Department for Digital, Culture, Media § Sport and the British Council. The British Council began working on this area in 2014 and played a key role in increasing recognition of the concept through its documentation and collaboration initiatives (Dovey et al., 2016; Matheson & Easson, 2015). The British Council created the European Creative Hubs Network by working with the European Commission, created the Creative Hub Academy by working with NESTA, established the Creative Hub-Making forum in Vietnam and held the Building Creative Communities event in

Istanbul. These efforts also enabled new efforts to be undertaken throughout the European Union. The European Business Network (EBN), which includes business and innovation centers, incubators, accelerators and other support organizations, is one of the largest networks. Projects created in collaboration with the British Council and NESTA are summarized below:

**Table 2.4 :** International organizations and networks working on creative hubs in the UK.

| Organization | Aim | Definition of Creative Hubs |
|---|---|---|
| British Council | To 'support spaces and communities where people can design, test, scale and launch imaginative and enterprising ideas together' (British Council, 2019). | 'A creative hub is a place, either physical or virtual, which brings creative people together. It is a convenor, providing space and support for networking, business development and community engagement within the creative, cultural and tech sectors' (Matheson & Easson, 2015, p. 4). |
| Creative Hubs Academy | Creative Hubs Academy (CHA) is a global initiative designed by Nesta, British Council and Hivos that supports creative hub leaders to sustain and grow their hubs. (Creative Hubs Academy, 2020) | Creative hubs – whether physical or virtual – are spaces for creative and social entrepreneurs to connect and support one another while developing their businesses in a nurturing environment (NESTA, 2019). |
| Nesta | NESTA is in a collaboration with the British Council and Hivos, to set out to get a better understanding of how creative hubs are built, managed and sustained, and how the collaboration helps them to prosper (NESTA, 2018). | 'A space, either physical or virtual, that sustainably supports creative entrepreneurs and people to come together, collaborate and thrive' (NESTA, 2018, p. 3). |

CHs represent a direct item in the agenda of international organizations. The Creative Economy Report published by UNCTAD in 2008 mentions CHs by giving a brief summary of the creative cluster approach. OECD continues to work on the fronts of creative economy and cultural and creative sectors. Similarly, UNESCO's activities in this field are related to the Creative Cities Network. Whereas, UNICEF is conducting projects which involves many countries with a focus on its Innovation Labs program to foster a culture of innovation.

Although there are not local or regional organization that directly focus on CHs in the U.S., there are certain substructures which could be addressed under the scope CHs.

For example, the International Business Innovation Association (InBIA) is a network that brings together incubators, accelerators and other entrepreneurship centers from not just in the U.S., but also other countries. Being the country where organizations such as working spaces, incubation centers and makerspaces first appeared, the U.S. naturally hosts the most diverse set of organizations. Therefore, it has large databases and network organizations.

The European Union's activities regarding CHs are being carried out according to specific programs to conform to seasonal priority policies of the EU.

The European Commission set 6 priority policies for the period 2019-2024 (European Union, 2019).

1. A European Green Deal: striving to be the first climate-neutral continent
2. A Europe fit for the digital age: empowering people with a new generation of technologies
3. An economy that works for people: working for social fairness and prosperity
4. A stronger Europe in the world: Europe to strive for more by strengthening our unique brand of responsible global leadership
5. Promoting our European way of life: building a Union of equality in which we all have the same access to opportunities
6. A new push for European democracy: nurturing, protecting and strengthening our democracy

Since culture and creativity encompass a very large domain, they fall into the scope of all policies concerning high-priority areas. All culture-related activities are being executed in line with the topics and methods specified in the Work Plans for Culture developed by the European Commission. The Work Plan for Culture sets out 6 priorities for cooperation in cultural policy-making for the period 2019-2022. These priorities are as follows:

1. Sustainability in cultural heritage
2. Cohesion and well-being
3. An ecosystem supporting artists, cultural and creative professionals and European content
4. Gender equality
5. International cultural relations
6. Culture as a driver for sustainable development (European Union, 2018, p. 13)

Among the priorities, the 3rd priority for policy-making, i.e. 'an ecosystem supporting artists, cultural and creative professionals and European content', directly covers the work carried out with CHs. The work plan states that the people in the creative sectors tend to have a high degree of mobility, and that the cultural and creative sectors in Europe are characterized by self-employment, small- and micro-enterprises. The Europe Union's activities related to cultural and creative sectors are carried out under the Creative Europe Programme. The Programme consists of Creative Europe Culture, Creative Europe Media (audio-visuals), Cross-sectoral strand and various networks. Various activities are carried out under the programmes such as capacity building, specialization, talent development, and data collection to gain a deep insight into the sectors. The European Union's activities aimed at supporting cultural and creative sectors are done in the form of programmes that encompass certain timeframes. Below (Table 2.5) is a summary of the related current activities of the EU in this field:

**Table 2.5 :** European support schemes for the sector and the industry.

| Name of the Schemes | Aim |
|---|---|
| Cultural and Creative Sector Guarantee Facility in Creative Europe 2014-2020 | It aims at strengthening cultural and creative sectors companies' financial capacity and competitiveness (European Commission, 2020a). |
| European Institute of Innovation and Technology (EIT) | EIT is an independent EU body created to strengthen Europe's ability to innovate. It supports eight Knowledge and Innovation Communities which bring together companies, universities and research centers to form cross-border partnerships (EIT, 2020). |
| Horizon Europe | EU's research and innovation framework programme running from 2021-2027 (EU, 2021). |
| Erasmus for Young Entrepreneurs | Erasmus for Young Entrepreneurs is a cross-border exchange programme which gives new or aspiring entrepreneurs the chance to learn from experienced entrepreneurs running small businesses in other Participating Countries (Erasmus for Young Entrepreneurs, 2009). |
| WORTH Partnership Project | WORTH is the sole European project where designers, SMEs, manufacturers, and tech providers work together to develop innovative, design-oriented business ideas (WORTH, 2021). |
| STARTS initiative (Innovation at the nexus of Science, Technology, and the ARTS), the STARTS Residency programme | The Initiative supports collaborations between artists, scientists, engineers and researchers to develop more creative, inclusive, and sustainable technologies (STARTS, 2020). |
| Startup Europe | Startup Europe strengthens networking opportunities for deep tech scaleups and ecosystem builders to accelerate the growth of the European startup scene (European Commission, 2020b) |

The European Union programmes also establish networks for support purposes. These networks directly or indirectly promote establishment and development of CHS. The networks established by the European Union are as follows:

**Table 2.6 :** Networks in the areas of the cultural and creative sectors at European level.

| Name of the network | Aim |
|---|---|
| European Creative Business Network | EBN is a network of around 140 quality-certified EU\|BICs (business and innovation centers, incubators, accelerators and other support organizations) and approximately 100 Associate Members that support the development and growth of innovative entrepreneurs, start-ups and SMEs (EBN, 2021). |
| EU network of creative hubs | The European Creative Hubs Network (ECHN) is a peer-led network with a mission to enhance the creative, economic and social impact of hubs (ECHN, 2018). |
| European Innovation Council and SMEs Executive Agency (EISMEA) | It aims to create strong synergies to support the recovery of the European economy, and in particular small and medium-sized enterprises, notably through innovation (European Commission, 2021). |
| Pan-European network of Digital Innovation Hubs | European Digital Innovation Hubs (EDIHs) aims to help companies improve their processes, products and services through the use of digital technologies (EDIHs, 2021). |
| Regional Initiative for Culture and Creativity | It is an EU platform working in close cooperation with decision makers and experts from their Regions to advocate on cultural and creative policies with territorial dimension and participate in relevant EU funding programmes (European Committee of the Regions, 2018). |
| European Regions Research and Innovation Network (ERRIN) – Working Group on Design and Creativity | The Design & Creativity Working Group aims at raising the awareness of design and creativity as tools and drivers for innovation in different sectors and across Europe (ERRIN, 2021). |

In addition to the activities of international organizations and agencies in the field of CHs, there are some international networks and databases on new workspaces such as CWSs, incubation centers, makerlabs, fab labs and hackerspaces which offer working, collaborating, sharing and networking facilities. These online databases play a key role in enabling similar type of users from all around the world to communicate with each other and access other similar organizations. Global networks that are currently active are listed in the Table 2.7.

**Table 2.7 :** Global databases on CWSs, fablabs, makerspaces, hackerspaces.

| Name | Description | Location of the Database |
|---|---|---|
| Coworker.com | The World's Largest Network of Coworking Spaces (Coworker, 2020). | https://www.coworker.com/ |
| Cowork7x24 | Discovering and booking the nearest registered co-working spaces around the world (Cowork7x24, 2019). | https://www.cowork7x24.com/ |
| deskmag | Deskmag is a magazine about the new type of work and their places. It especially focuses on the look, function, and potential improvement points of CWSs (Deskmag, 2021). | https://www.deskmag.com/en/about-us |
| Deskwanted | A global network of CWSs and shared offices used by a community of independent workers (DeskWanted, 2021) | https://www.deskwanted.com/ |
| Fab Foundation | The Fab Foundation is a US non-profit organization formed in 2009 to facilitate and support the growth of the international fablab network as well as the development of regional capacity-building organizations (Fab Foundation, 2020). | https://fabfoundation.org/#page-top |
| Hackerspaces | hackerspaces.org is an informal volunteer network of such spaces, maintaining community services - including a wiki for everyone who wants to share their hackerspace stories and questions, mailing lists, XMPP services, a blog and a feed aggregator, and many others (Hackerspaces, 2018). | https://hackerspaces.org/ |
| Makerspace.com | A global network of registered makerspaces around the world (Makerspace, 2021). | https://makerspaces.make.co/ |

### 2.5.5 Evaluation of the section

Globalization, development of ICT and widespread Internet access triggered a profound shift in how the economy works. Characterized by creativity and innovation, this new economic landscape resulted in development of new products, services, organizational structures and business processes. This new economic landscape, which began to show up particularly in the last quarter of the 20th century, is given different names such as the new economy, flexible specialization, post-fordism, and the knowledge economy. Creative industries and the associated creative economy are

key elements of the new economy as they are the driving force of knowledge economy and also stimulate other industries and services.

Upon a quick review of the components of new economy, it is seen that the economy depends on creative activities and creative minds and that terms such as diversity, openness and tolerance have an important role. The new economy places greater emphasize on the importance of human capital and suggests that flexible, tolerating, cosmopolitan and face-to-face relationships can be established to meet the requirements of the human capital. Accordingly, cities where these relationships contribute to development of new ideas, products, services, and organization are one step ahead of others. Therefore, physical and social infrastructure of urban areas gain even more relevance in attracting educated and flexible workforce, dynamic thinkers, and other human resources who develop and implement creative ideas. Approaches like creative cities require investments to be made in physical infrastructure, e.g. educational institutions, cultural organizations, green areas, research centers and healthcare facilities. Physical infrastructure should be supplemented with social facilities that allow collaborative structures, protect social rights, and promote openness and a vivid cultural setting.

Emergence of CHs is closely related to the workforce profile and the way of doing business required by the knowledge economy. Developments in the field of ICT have enabled people to work in a more mobile and location-independent fashion. Freelancers, self-employed, remote workers and start-ups have an important place in the creative economy, and new forms of working and coexistence emerged as a result of their needs and the way they do business. Consequently, hubs which offer shared workspaces have become significant tools for improving the culture of entrepreneurship and supporting local and regional economic growth. Shared workspaces also deliver economic, physical and social benefits. Cost-effective utilization of resources brings about economic benefits. Self-developing interactions due to physical proximity present advantages such as knowledge transfer and new business opportunities. Additionally, shared workspaces also prevent social isolation which is a common problem of working remotely and lays the groundwork for tacit knowledge.

Although places such as libraries, coffee shops and serviced office spaces may also enable coworking, creative hubs have a distinct feature that sets them apart from other coworking spaces in that they systematically turn working alone together into a

socially shared experience. CHs offer a work environment that is based on common values of community, collaboration, openness, diversity and sustainability. In this regard, it can be said that CWSs, makerlabs, fab labs and ICs fall into the scope of CHs. Based on this conclusion, the definition of CH used for the purposes of this study is as follows: 'a CH is a place with physical and social services where freelancers, entrepreneurs, and micro-SMEs within the creative, cultural, and tech sectors can work, collaborate, share, experience, network, develop projects together, and create ideas.'

Each of the workspaces that fall into the scope of CHs emerged in a different setting and period (See Figure 6). Some of them evolved and took a different form compared to their original form in response to different requirements. Serviced offices which first appeared in the 1980s are the early CWS-like places. CWSs are distinguished from serviced offices (which are basically office providers) based on their target audience and the social interaction nature of their services. Examples of CWSs which began to show up in the mid 2000s enabled working around a common physical infrastructure, networking, collaborating and knowledge transfer.

First examples business incubation centers date back to the 1950s (See Figure 6). The first examples were more focused on provision of physical resources to promote economic reorganization and increasing employment. The services and possibilities offered by ICs changed over time especially in connection with the appearance of accelerator centers in the 2000s. Newer examples of ICs both ensure an entrepreneurship environment through the mentorship, networking and training support that they provide to SMEs, driving force of creative economy, and facilitate creation and growth of products and services to enhance their economic impact.

Hackerspaces, makerlabs and fab labs enable prototyping, testing, research and development activities by allowing shared use of resources and tools and facilitating access to them. Examples of hackerspaces began to be seen in the 1990s and involved coworking on projects in the fields of computer and technology. Whereas examples of makerspaces and fab labs gained traction in the mid 2000s when production equipment became more available and prototyping tools got even more compact designs and became more affordable in line with technological developments. Co-creating, networking and knowledge transfer benefits of maker environments contribute to development of high-level technological skills that are necessary for ensuring welfare and social mobility.

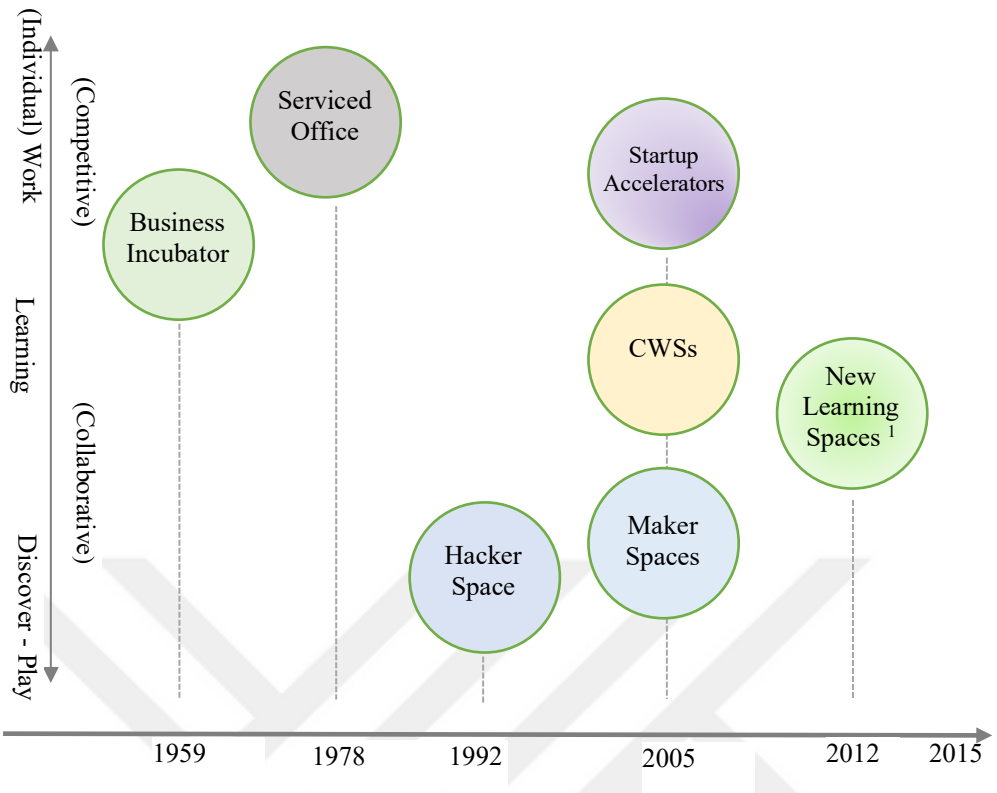


**Figure 2.3 :** Work-Learn-Play third spaces (Waters-Lynch et al., 2016, p. 4).

CHs, i.e. the new type of work, production and collaboration spaces coming to life with the creative economy, find a place themselves in the agenda of policy-makers. Many national and regional organizations develop policies and provide funds to help this type of spaces to grow. International organizations draw attention to the key role that creative economy plays in urban and regional development. Regional organizations create policy frameworks to improve and prioritize creative collaborations on a regional level. Whereas on a country-level, policy-makers try to provide the required political and financial infrastructure for development of CHs in a creative economy setting and make researches to achieve a deep understanding in this field. Therefore, activities undertaken to develop CHs are closely related to those policies that could possibly unlock and strengthen the creative potential of a given country or city.

[1] New Learning Spaces is an emerging concept which consisted of the combination of a formal learning environment which focuses on the most relevant skills of the 21st century and informal learning caused by proximal relations.

# 3. CREATIVE ECONOMY OF ISTANBUL

## 3.1 Spatial Reflections of Istanbul's Urban Economy in Historical Context

From a cultural and economical standpoint, Istanbul lies at the heart of Turkey. With 15,519,267 inhabitants which account for 18.66% of the total population of Turkey (TURKSTAT, 2019b), it is the most crowded city in Turkey. Istanbul has a Gross Domestic Product (GDP) of 1 trillion 327 billion 452 million TL which makes up 30.7% of the GDP of Turkey (TURKSTAT, 2019a). In addition to its economic strength, it is also a center of attraction as it offers numberless job opportunities as well as a wide range of cultural events and education possibilities. Being positioned in a unique location, Istanbul has been a center of utmost strategic importance for centuries.

Once an industrial economy, Istanbul's economy has turned into a predominantly service economy over the years. Creative industries of the nation are also concentrated in Istanbul (UNCTAD, 2010). Therefore, the city has a much vivid cultural and art life compared to other cities in the country. Venues in the city reflect the policies enforced on it as well as the physical and social decisions taken in relation to it. To be able to analyze the current creative economy infrastructure of Istanbul and interpret the implications of this potential, it is essential to review the change that Istanbul has gone through in a historical context. For this purpose, it is possible to examine the economic, demographic and physical changes that affected the last 100 years of Istanbul and shaped the urban spaces in the city by looking at certain periods.

### 3.1.1 1923 – 1950 period

Istanbul was home to three different empires throughout the history and the only period of time when its population growth rate slowed down is the time period from 1923, the year when the modern Republic of Turkey was founded, to 1950. When Ankara was declared the capital of the Republic of Turkey, Istanbul lost its appeal to some degree for a while (Geçer, Avar, Velibeyoglu, & Saygın, 2008). Istanbul had a population of about 1 million in 1897, although official records do not provide a clear

picture of the scope of the census or any details about the population changes back then. Official records for the period 1918-1922 show that the city's population was 1,203,000, whereas another census conducted in 1922 came up with a population of 710,286. On the other hand, according to the 1927 census, Istanbul's population within the municipality boundaries was 690,857. After the Republic of Turkey was founded, Istanbul's population decreased by almost half compared to the end of the 19th century. This was a period when both the city's population and economy shrank (Tekeli, 2013).

During the 1930s, the country was governed under statist policies as a result of the Great Depression of 1929 and the unique circumstances of Turkey. Istanbul's industry achieved great progress under the public administration during these years. Presence of foreign companies also helped Istanbul maintain its position as the economic center of Turkey despite the slowdown in its population growth (Sönmez, 1992).

During these years, landscape arrangements and road construction works were given priority in Istanbul. Experts from the western world were invited to Istanbul to help with the urban planning and public works that needed to be done in the city, Henri Prost, one of the founders of town planning in France, made some key planning decisions for the city. His planning decisions included reservation of the coastline of Haliç for the industry, making Karaköy a center of business alongside Eminönü, creating a green strip of parks and open air theatres, and widening the Ataturk Boulevard and other avenues in Tepebaşı, Taksim, Osmanbey and Beşiktaş (Tekeli, 2013).

At this time, Istanbul's CBD was limited to a small area, which was historically the central part of the city for centuries. This area consisted of the Eminönü district, predominantly characterized by the service sector, and the Galata and Pera neighborhoods, which were mainly occupied by the bank headquarters and insurance companies. Furthermore, in parallel to the developments in the transportation infrastructure, Şişli, Besiktas and Kadıköy districts gradually became subcenters (Dincer, Yenen, Şengezer, Yakar, & Dikçınar, 1996). Meanwhile, due to housing problems in the city, squatter houses started to appear. Although the industry sector in Istanbul showed growth especially after the 1950s, manufacturing activities until that time used to be carried out in the city center. Therefore, the number of squatter houses in Istanbul began to increase rapidly after the 1950s with the first housing problems arising in the neighborhoods around the industrial areas. Since the law required only

1st degree industrial premises to be located outside residential areas, small-scale manufacturing workshops and facilities continued their existence within the city center. The first squatter houses in the region and its adjacent neighborhoods appeared for this reason (Keleş, 1972; Tekeli, 2013). Clusters of squatter houses around industrial areas were seen in Kazlıçeşme, Zeytinburnu, Haliç, Kağıthane, Kasımpaşa, Çarşamba, Eyüp and Karagümrük neighborhoods in the European side as well as in the Paşabahçe and Beykoz in the Asian side of Istanbul (Dincer et al., 1996).

### 3.1.2 1950-1980 period

Until the 1950s, Istanbul used to be a single-centered city with manufacturing, banking, insurance, wholesale, retail sales and other similar operations being aggregated in Eminönü, Galata and Beyoğlu (Dökmeci & Berköz, 1994). After the 1950s, Istanbul entered into an intense industrialization process, which started a continuous wave of domestic migrants as the industrialization required more and more workers. Dense population and the accompanying urbanization led to an increase in the number of motorized vehicles and the need for energy supply (Erbaş, 2014). Furthermore, the Marshall Plan, modernization of agriculture, industry support schemes and investments made in road constructions meant that Istanbul was going to experience profound spatial changes as well (Geçer et al., 2008). The industrial areas were the key factors that led the spatial changes the city went through during that time (Ocakçı, 1998). As the industry grew, the city was flooded with domestic migrants (Yenen, Akın, & Yakar, 2000). With the Istanbul industry plan drawn up in 1954 and put into force in 1955, Mecidiyeköy, Levent, Şişli, Bomonti and the area between Kasımpasa and Kağıthane were included in the list of industrial areas. This was the reason which led to the large squatter settlement around the Kağıthane district. The industry plan slowed down the growth of the industrial area around Haliç, while it caused new industrial areas to appear in Topkapı, Rami and Levent. The new industrial areas also led to squatter settlements in Halkalı, Maltepe and Kartal. During the 1950s, settlements in the city covered a large area reaching Yeşilköy in the west, Levent in the north, and Bostancı in the east (İMP, 2009).

The 1960s were shaped with the statist policies which put planning in the foreground. 5-year development plans prepared by the governments of the time set out high-priority investment regions. Majority of the businesses established in Turkey during this period were incorporated in Istanbul (Enlil, 2011). Companies with big capital

which already had investments in various parts of the Anatolia swarmed to Istanbul, a city where they could meet and do business with foreign companies, for their new investments (Sönmez, 1992). In line with Istanbul's role as the new economic center, investments were made in many modern transportation systems, large boulevards were built, and efforts were put in to give the city a better feel and look (Kuban, 1993). To facilitate transportation from Istanbul to Europe and Anatolia, investments were made into the network of roads and maritime transportation and airline transportation capabilities were improved. Vatan and Millet avenues, the coastal road, and the Londra Asfalti were built during this period. At the same time, the area of Salı Pazarı was enlarged, a breakwater was constructed for the Haydarpaşa Port and the Yeşilköy Airport was expanded (Sönmez, 1992).

During these years, job opportunities were concentrated in Eminönuü and Beyoğlu regions, i.e. the city's historical centers, (Dökmeci & Berköz, 1994) and the majority of banking and financial activities still took place in the Beyoğlu region (Özdemir, 2002). As industrial investments quickly increased, Kartal-Maltepe industrial areas were also added to the axis of Yakacık-Tuzla-Çayırova-Gebze, which started a process of quick development in the Asian side. Whereas, the existing industrial areas between Zeytinburnu and Bakırköy in the European Side were expanded in the northern direction by the addition of Küçükköy, Alibeykoy and Kagithane with Sefakoy, Halkali and Firuzkoy on the one side and Eyüp-Rami-Gaziosmanpaşa on the other side. The west part of the Büyükdere Avenue, which extends from Şişli to Maslak, was also designated as an industrial area (İMP, 2009).

In the 1970s, settlements which had been built outside the city as a result of rapidly increasing population were included in the boundaries of the metropolitan area through legal arrangements. Between 1970 and 1980, the current 50-km periphery of the city grew by 10 km. The traditional city center lost some of its population and shifted toward the north axis (Geçer et al., 2008). Many small businesses located in the city center during the 1960s were split into employment and commercial activities subcenters starting from the 1970s as they faced expensive rents, needed a larger space, complained from traffic congestion and dense population of the city. Due to increasing population and separation of management departments of industrial companies from their manufacturing departments, more office space was needed. As the buildings in the historical city center of Istanbul could not respond to this need due to their

conditions and capabilities, new office areas began to appear in easy to access parts of the city (Dökmeci & Berköz, 1994; Yılmaz & Karaaslan, 2010). The 1st Bosphorus bridge which was commissioned in 1973 accelerated this process. Before the bridge was built, only maritime transportation was available to cross from one part of the city to the other. Thus, this suspension bridge over the Bosphorus strait improved transportation within the city by enabling road transportation between the two sides of Istanbul. This development brought about a population increase in Kadikoy and Kartal districts. Until the construction of the bridge, the historical peninsula was the most densely populated area of the city. However, new highways led to new concentrated settlements to appear in the northern parts of the city, causing a surge in land prices there (Kılınçaslan, 1981).

After the bridge was built, areas along the arterial highway and access roads turned into prestigious areas. Office builders began to choose areas in the vicinity of these arterial highways. As the east and west sides of the city were connected via the northern axis, the CBD shifted to the north. Being subject to land speculation, plots in these areas quickly changed owners. Local big companies obtained ownership of the majority of the lands. As a result, the CBD expanded by sprawling toward the north (Geçer et al., 2008). Improved transportation means between the European and Asian sides increased the importance of Kadikoy as a town center. Ease of transportation to Levent and Sisli thanks to the development of the north axis also led to an increase in the population of the neighbouring district Besiktas and changed the dynamics of the district (Özdemir, 2002). The city reached Bostancı-Maltepe-Kartal-Pendik-Gebze in the east and Silivri in the west along the D-100 highway.

### 3.1.3 1980-2010 period

The 1980s were characterized by neo-liberal economic policies which sought to open Turkey to world markets. An open market system was incorporated into the national development strategy (Dökmeci & Berköz, 1996). The import substituting industrial economy of the previous years was to be replaced by a policy which sought export growth and global capital. During 1980-1990, the economic base of the city began to change and a substantial transition took place from manufacturing activities to finance and service sectors. Number of people employed in finance, insurance, real-estate and business services showed a remarkable increase. Similarly, consumer services and retailing activities showed a remarkable increase. Another significant development

that occurred during and after this period is a great increase in foreign direct investment, most of which going directly into the banking and finance services in Istanbul. This situation caused the city to undergo spatial changes. Being positioned as the jewel of the country, Istanbul saw big investments into high-profile offices, luxury hotels and transportation systems. Incentives such as tax reduction were provided to encourage investors through regulations. Additionally, certain parts of the city were designated as tourism center and 'tourism and business center'. High-rise office buildings and luxury hotels were erected in these areas. The CBD carried on expanding along the Buyukdere-Maslak axis. At the end of the 1980s, the high-rise office buildings along this axis were especially occupied by the headquarters of many national and multi-national companies operating in the banking and finance sectors. The historical city center which consisted of Eminonu and Beyoglu districts and had accommodated the headquarters of financial, banking, insurance, real-estate, and corporate headquarters in the past lost its appeal for such corporate headquarters. This was when the modern office buildings constructed along the Sisli-Mecidiyekoy-Maslak axis began to create the new center (Dökmeci, Dülgeroğlu, & Berköz Akkal, 1993; Enlil, 2011).

The changes that took place in Istanbul from the end of the 1980s onwards were largely due to the construction of the second suspension bridge over the Bosphorus. This bridge was also one of the reasons why the CBD went on to grow along the Buyukdere-Maslak axis (Geçer et al., 2008). During this period, the CBD expanded by sprawling from Karakoy to Besiktas and from Sisli to Zincirlikuyu. Upon completion of the 2nd suspension bridge over the Bosphorus, the settlement areas in the city began to spread toward Ayazaga. Nisantasi, Osmanbey and Sisli turned into an center of attraction with luxury stores, restaurants and cafes for the high-income group.

Istanbul experienced many changes in during the 1980s. Industrial premises around Halic were moved to outer parts of the city. This enabled seabed cleaning operations to be carried out in the Goldern Horn. Many nationalization and coastline arrangement actions were taken in the city. Interventions such as demolition work in Tarlabaşı, construction of a causeway along the Bosphorus and Kadıköy-Bostancı coastal reclamation projects destructed the natural and historical texture of the city. Büyükçekmece, Kağıthane, Küçükcekmece, Avcılar, Bağcılar, Bayrampaşa, Bahçelievler and Güngören districts were established in the European side, while

Pendik, Ümraniye, Maltepe, Sultanbeyli and Tuzla districts were established in the Asian side in order to create an administrative framework in response to rapidly increasing population (İMP, 2009).

With 7.3 million inhabitants in 1990, Istanbul was now a city which began to embrace the consumption habits of western countries. Small-scale retailers were largely replaced by international companies (Tokatli & Boyaci, 1999). The number of shopping malls and hypermarkets in the city gradually increased during this period. Many global brands operating in the clothing and food & beverage sectors opened stores and franchises in Istanbul. As of 1998, 1158 foreign retail firms had presence in Istanbul (Enlil, 2011). As high-level services, including information activities, coordination, business management and R&D services, gained more importance together with neo-liberal policies, the service sector changed and grew with more diversified services now being offered. This growth in the service sector resulted in agglomeration of the city's business areas in new zones after the 1980s. New firms chose to use the new modern office buildings in the easy-to-access areas which were located along the radial roads and access roads situated between the two suspension bridges built over the Bosphorus and were sufficiently large to respond to any need for expansion. The Şişli-Mecidiyeköy-Maslak axis accommodating large-scale companies, including foreign-capital banks, large conglomerates, multi-national companies and insurance companies in particular, began to form a new central business district. Whereas the Şişli-Mecidiyeköy-Zincirlikuyu and Maslak axis became a center of attraction for industrial company agencies, financial institutions, conglomerate headquarters and other various foreign companies (İMP, 2009; Yılmaz & Karaaslan, 2010).

After the mid- to large-scale industrial corporations left the city during the 1980s, construction activities throughout the city showed significant increase in the 1990s. As companies with big capital entered the construction business and started making real-estate investments in a systematic manner, the construction activities had a significant share in the city's economy during the 1990s (Yılmaz & Karaaslan, 2010). This situation can also be interpreted over the urban transformation process brought about by the ongoing deindustrialization of the city center. As a matter of fact, the urban transformation process which took place in Istanbul is, from certain aspects, different than the deindustralization process seen in other post-industrialized cities.

What separated Istanbul from other post-industrialized cities is that a key reason for this change was not increased labor and capital costs, but the economic opportunities that the valuable plots occupied by the remaining industrial premises within the city center would present. Although moving the industry outside of the city were associated with health and safety-related reasons especially during the early 1990s, the industrial areas remaining at the city center turned into new plots which would be subject of global real-estate projects such as luxury housing projects, office buildings and shopping malls (Erbil, 2017). Meanwhile, the transportation network provided guidance on which direction the city would grow. As a city, Istanbul grew by expanding to the east and west (Istanbul Metropolitan Municipality, 2011). Upon completion of the second suspension bridge over the Bosphorus, the forests, agricultural lands and water basins located to the north of the city began to be subject to exploitation. Construction of luxury houses for the high-income group gained momentum. Stress on natural resources of the city was especially severe in districts such as Gaziosmanpaşa, Eyüp, Sarıyer and Beykoz (İSTKA, 2014). Urban sprawl of İstanbul until 2000s is shown in Figure 3.1.

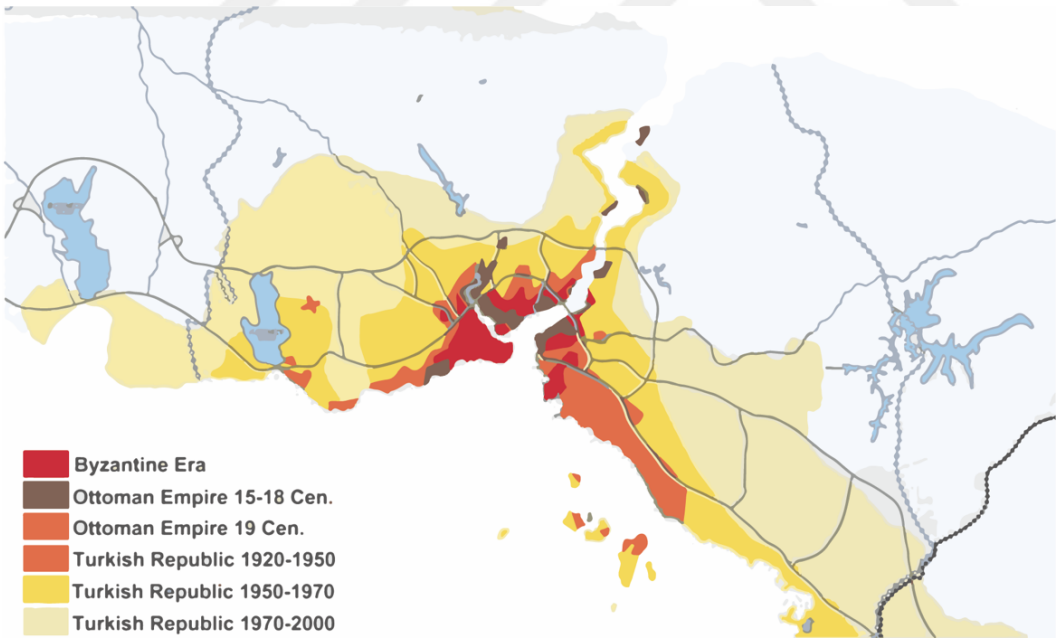


**Figure 3.1 :** Changes in Istanbul's macroform in historical context from Byzantine Era to 2000 (Enlil, 2011, p. 7).

During the 2000's, Istanbul went on to grow by sprawling and spreading out of its city boundaries. Construction of the 1st and 2nd Bosphorus bridges and expansion of the city toward the northern parts which housed forest areas and water basins caused

investments to follow similar course of direction. This turned into a major threat for the forest areas and water basins of the city. This was soon followed by illegal housing inside the basins (İMP, 2009). The earthquake of 1999 also accelerated this process. New housing areas were developed and more and more luxury housing complexes featuring security guards in close proximity to D-100 and TEM highways began to be built in Göktürk-Kemerburgaz, Zekeriyaköy-Demirciköy, Bahçeşehir, Beylikdüzü, Başakşehir and Büyükçekmece in the European side and Ataşehir, Beykoz, Çekmeköy-Dudullu and Ömerli in the Asian side (İSTKA, 2014).

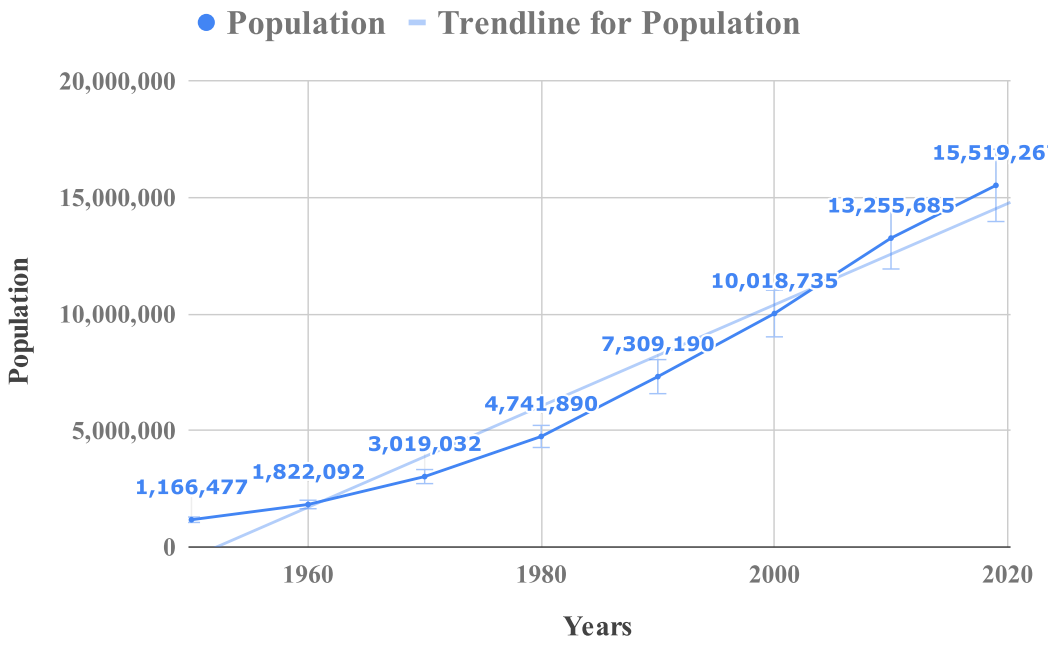


**Figure 3.2 :** Population change in Istanbul from 1950 to 2019 (TURKSTAT, 2019b).

Istanbul continued its pattern of growing outward and expanded in the east-west direction along the D-100 highway and TEM axes. The city's boundaries reached the boundaries of Izmit in the east and Tekirdağ in the west. Istanbul's population exceeded 15 million (See Figure 3.2), and the region containing Gaziosmanpaşa, Esenler, Bayrampaşa, Güngören, Bağcılar and Bahçelievler districts became the most densely populated region of the city. Region containing Kadıköy, Üsküdar and Ümraniye along the coastline of the Bosphorus in the Asian side is also another densely populated area of the city. With the deindustrialization, the service workforce in Istanbul was distributed across a region containing Şişli, Beyoğlu, Eminönü, Fatih and Eyüp districts. This region also contains the CBD of the city (İMP, 2009).

### 3.1.4 Period after 2010

After the 2000s, as a result of the spatial and functional changes that took place in Istanbul, new spatial formations were seen that were separated from the city's traditional centers. Meanwhile, the city also experienced a big spatial growth. Istanbul's city boundaries were now covering a wide area that spanned 80 km to the west and 40 km to the east (İMP, 2009). Attracting a great deal of interest from the global capital, Istanbul turned from a monocentric city into a polycentric city, as is the case with other global cities, due to the spatial changes starting back in the 70s and the neo-liberal policies adopted since the 80s (Dökmeci & Berköz, 1994; Geçer et al., 2008). The city's CBD continued to move to the north in the 2000s as part of a process which started after the 1980s and accelerated even more upon completion of the second Bosphorus bridge. When the industrial facilities in Haliç, Zeytinburnu and the coastline of the Asian side were moved to the east, west and north parts of the city led to the emerge of new settlements. Spatial and functional changes in the city gained speed when some part of the industrial areas in the city were moved to neighbouring cities (Doğan, 2013). As most of the industrial areas were relocated outside the city center, remaining industrial areas as well as squatter settlements which had appeared in the surrounding areas then became targets for urban transformation projects. Especially, areas along the Haliç coastline were declared urban transformation areas after the 2000s in particular. It is noteworthy that even though some of the urban transformation projects were completed in these areas, some of them are still in progress (See Figure 3.3).

**Figure 3.3 :** Declared or ongoing urban transformation areas in Istanbul (2000-2021) (Turkish Association of Architects in Private Practice, n.d.).

Mega projects played an increasingly more crucial role in shaping the city. Pressure to expand to the northern parts of Istanbul which had started upon completion of the 2nd suspension bridge over the Bosphorus and accelerated as a result of the Marmara earthquake in 1999, became even more obvious with the opening of the 3rd bridge over the Bosphorus in 2016. Additionally, the 3rd airport constructed to the north of Istanbul have resulted in increased settlements on the city's water basins and triggered developments in the northern direction. New residential, office and recreational areas planned to be built as part of the controversial "Istanbul Canal" project are expected to have substantial effects on the use of lands in Istanbul.

Rapid and unplanned urbanization damaged the urban form of Istanbul. The rapid growth of the urban areas with the effect of mega projects, gated communities, etc., caused distorted urbanization and increased the pressure on the city's natural areas. For example, mega projects damaged 98,6 km² of forestry area and 143,3 km² of the agricultural area of Istanbul (İPA, 2020b). As a result, the city fragmented into relatively discrete compartments (See Figure 3.4).

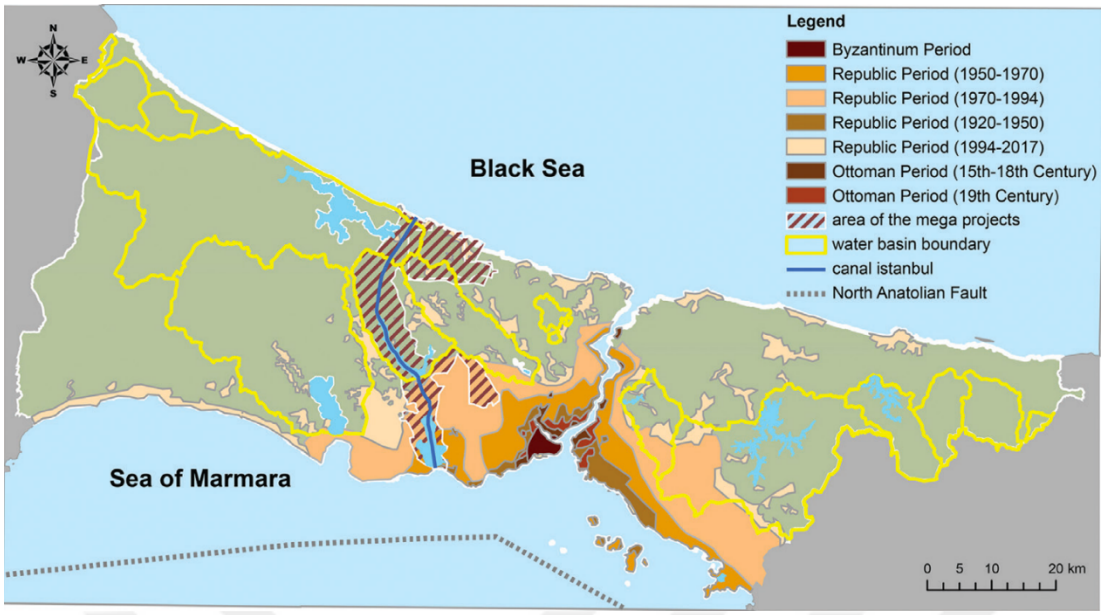


**Figure 3.4 :** Changes in Istanbul's macroform in historical context (From Byzantine Era to 2017) and megaprojects (Türer Başkaya, 2018, p. 149).

As of 2020, the central districts of the city cover a large area, including Şişli, Fatih (Eminönü), Beyoğlu and Beşiktaş in the European side and Kadiköy in the Asian side. Istanbul's CBD starts on Barbaros Boulevard in Beşiktaş, continues along Büyükdere Avenue and ends in Maslak.This area covers, Balmumcu, Gayrettepe, Etiler districts from Beşiktaş, and Esentepe, Zincirlikuyu, Levent, Maslak districts from Şişli (Bera & Guler, 2019). As is the case with other cities, this area primarily accommodates management, supervision and coordination functions as well as financial organizations, specialized service and commercial functions. High-level services; international management, supervision and coordination operations; finance organizations; insurance companies; real-estate investment consultancy firms, and professional technical consultancy operations are also aggregated in this area. Istanbul has transformed from an industrial city to a service city over time, with the services sector now accounting for 66.98% of all employment in the city (See Table 3.1).

**Table 3.1 :** Breakdown of employment in Istanbul per sector (%) (TURKSTAT, 2020).

| Sectors | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| **Agriculture** | 0.54 | 0.7 | 0.91 | 1.16 | 1.19 | 1.19 |
| **Industry** | 36.7 | 36.22 | 32.79 | 31.78 | 32.2 | 31.83 |
| **Services** | 62.76 | 63.08 | 66.3 | 67.06 | 66.7 | 66.98 |

Istanbul maintains its position as the economic capital of the country, making the largest contribution to the national economy as it has been the for many centuries. Based on 2019 data, being the city with the highest GDP, Istanbul alone accounts for 30.7% of the national GDP. Istanbul is followed by Ankara and Izmir, which are the next top cities by GDP, contributing 9.2% and 6.1% of the total country's GDP respectively. At the same time, Istanbul ranks 1st in all acitivity areas, except for agriculture. Istanbul accounts for 65.4% of all information and communication activities in Turkey, and 58.2% of all finance and insurance activities, 46.5% of all occupational, administration and support service activities; 40.5% of all activities in the services sector, and 35.6% of all activities in the construction industry (TURKSTAT, 2019a).

In relation to the services sector, 68% of the workplaces are located in the European side. Largest clusters of business services are located in Kadıkoy, Şişli, Beşiktas and Beyoğlu districts. Kadikoy, Sisli, Besiktas and Beyoglu districts also rank the highest in terms of producer services. These districts are home to 50% of the firms providing producer services. Although distributive services are spread somewhat homogenously throughout the city, Kadiköy (9.2%) is a bit ahead of other districts. Distribution activities are primarily spread throughout Eminönü, Şişli, Beyoğlu, Beşiktaş, Ümraniye and Küçükçekmece in addition to Kadıköy (İMP, 2009; İSTKA, 2011).

Sub-centers with smaller businesses compared to CBDs are spread throughout the European and Asian Sides. Distributive services are primarily accommodated in Bakırköy, Bahçelievler, Avcılar and Büyükçekmece in the European Side. The Yenibosna Basin axis include office, manufacturing and storage areas exist where service areas develop in the form of an axis. Service areas converted from industrial areas are located in Bayrampaşa, Güngören and Zeytinburnu. In the Asian side, producer services tailored to meet commercial and service needs are located in the Altunizate-Kozyatağı sub-center. Furthermore, Kartal, Pendik, Ümraniye and Tuzla are other sub-centers that developed in the Asian Side (İMP, 2009).

Apart from CBDs and sub-centers, there are also other areas consisting of office areas in particular in both sides of the city. These office areas are usually located in the vicinity of key transportation arteries, transfer points or main public transportation connection points (See Figure 3.5). In the European Side, office-intensive areas are Beyoğlu-Taksim-Nişantaşı, Şişli-Fulya-Otim, the area covering Başaksehir and the

surrounding area of the closed Atatürk Airport. In the Asian Side, they consist of Kozyatağı, Altunizade, Üsküdar, Kavacık and Ümraniye. Additionally, there are other office areas under development in both sides of the city. These areas include Kağıthane, Şişli-Bomonti and Beyoğlu-Piyalepasa, Merter and Basin Ekspres in the European Side and Kartal-Maltepe, Istanbul Finance Center, Pendik, Tuzla and Ataşehir in the Asian Side (Bera, Guler, Kumar, & Guler, 2019; Karahan, 2019).

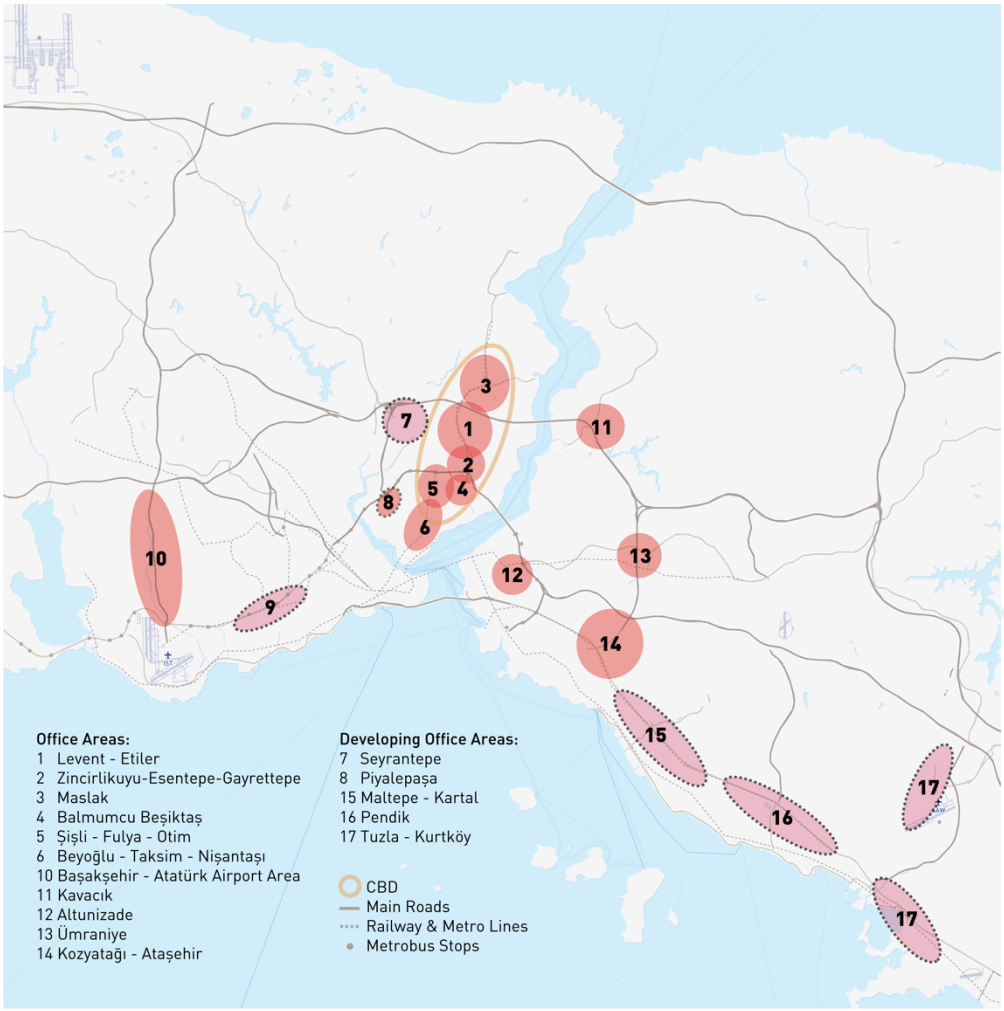


**Figure 3.5 :** Office areas in Istanbul.

Existing office-intensive areas in Istanbul also contain the new type of shopping, residential, recreational and work areas of the city. Erbaş (Erbaş, 2018) calls these new areas which reflect the change brought about by the globalization as 'spatial expansion axes'. These areas where the new type of shopping centers, residents, recreational areas and workspaces are concentrated within an axis are spatial reflections of an ongoing process characterized by huge shopping malls and office centers. Erbaş lists 6 spatial development axes in Istanbul as follows: 1) Mecidiyeköy – Zincirlikuyu – Levent -

Maslak axis 2) Seyrantepe - Kavacık axis 3) Kavacık - Ataşehir - Kozyatağı – Kartal axis 4) Bağlarbaşı – Altunizade – Ümraniye- Çekmekoy axis 5) Bakırköy – Yenibosna–Bağcılar - Ikitelli axis 6) Avcılar – Beylikdüzü - Haramidere axis. These areas which bring together different functions such residential projects, shopping malls and recreational areas also make up the new life culture of Istanbul. Residential projects in the city (See Figure 3.6) and the number and spatial distribution of shopping malls in the city (See Figure 3.7) indicate that this culture has now become an important part of the city.


**Figure 3.6 :** Declared or ongoing residence projects in Istanbul (2000-2021) (Turkish Association of Architects in Private Practice, n.d.)

The Büyükdere-Maslak line which forms the CBD of Istanbul is also the area with the highest number of shopping malls in Istanbul (See Figure 3.7). There are also numerous residential projects along this line (See Figure 3.6). Similarly, areas with a high concentration of office buildings in the European and Asian sides also have a high concentration of residential projects. Even though shopping malls reflect the new type of consumption spaces in Istanbul, they also house cultural facilities such as theaters, concert halls and seminar halls.

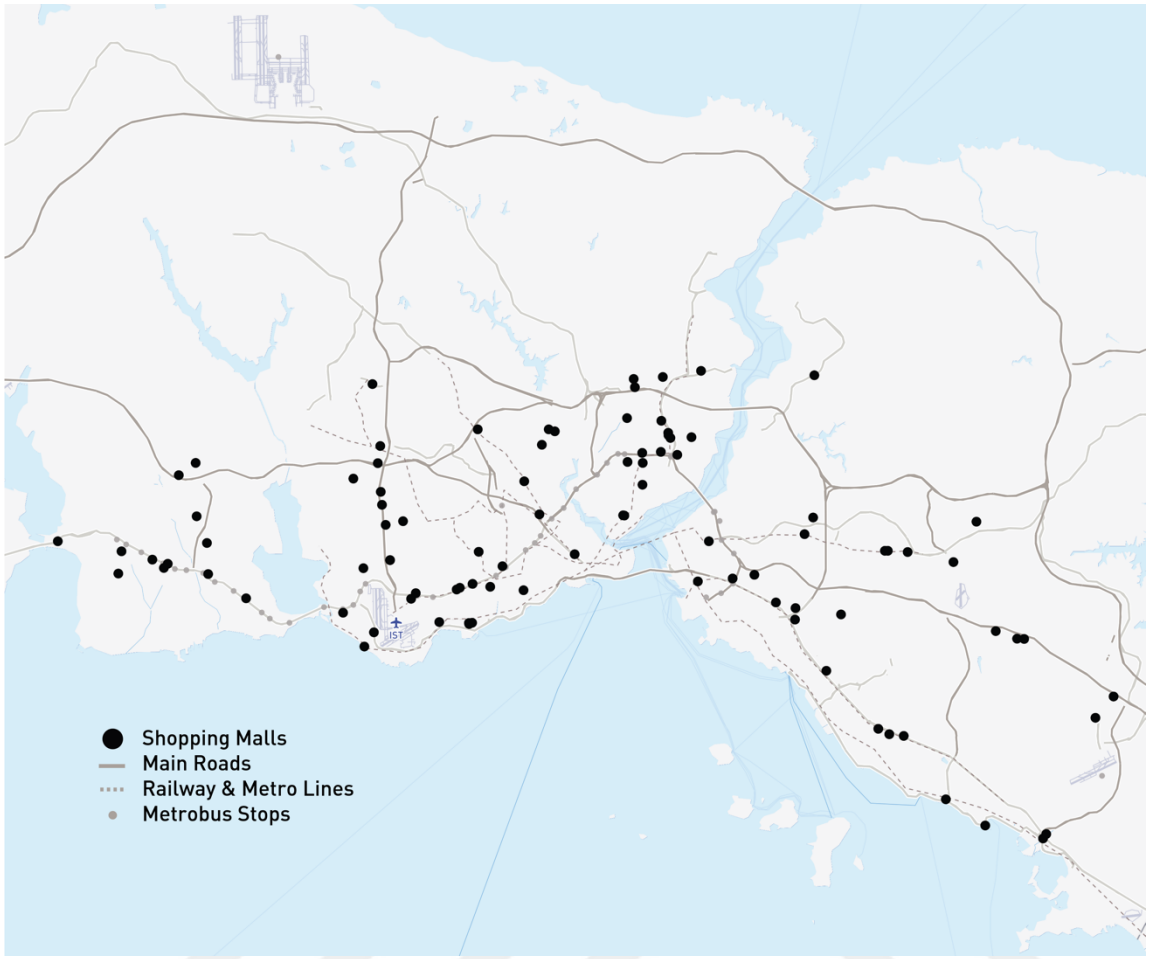


**Figure 3.7 :** Spatial distribution of 1st and 2nd class shopping malls in Istanbul (İBB, 2018).

### 3.2 Creative Economy of Istanbul

Turkey's creative economy has a high potential of growth. Among developing countries, it is one of the top 3 countries that export creative services, including art&craft, publishing, performing arts and visual arts (British Council, 2021; UNCTAD, 2010). Especially from the mid 2000s onwards, creative goods have been contributing increasingly more to the national economy. Export of creative goods increased from $3.3 billion to $9.9 billion during 2005-2014 (See Figure 3.8). Jewellery ($4.3 billion), interior design ($1.5 billion) and fashion accessories ($701 million) are the sub-categories that have the highest share in the export of design good and art crafts (UNCTAD, 2018).

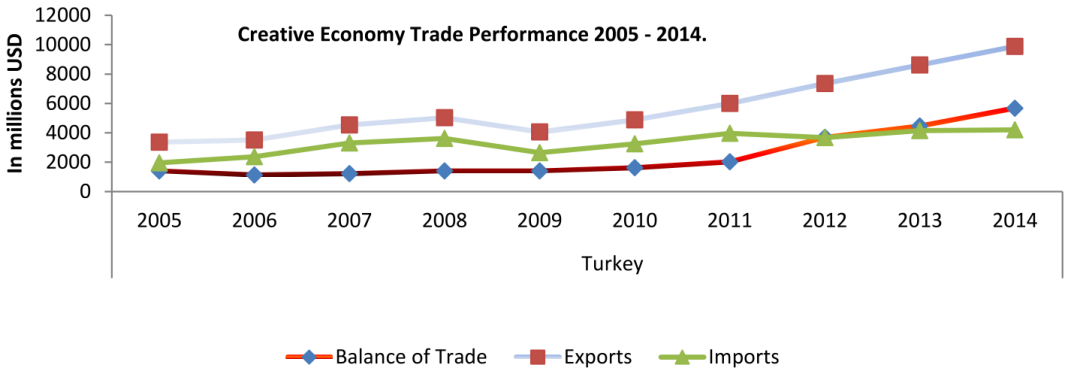


**Figure 3.8 :** Turkey's creative economy trade performance 2005-2014 (UNCTAD, 2018, p. 415).

Turkey does not have a specific legal framework or any set of policies in place regarding development of the creative economy (E. M. Demir, 2014). 11th Development Plan drawn up by the Presidency of Strategy and Budget for the period between 2019 and 2023 does not include any specific provisions concerning the creative economy. Similarly, there is no specific policy or set of measures on the subject of creative hubs. However, the plan formulated in line with the vision of "a stronger and more prosperous Turkey that creates more value and shares it on a more equal basis" include certain policies regarding human resources, R&D, innovation, science and technology, entrepreneurship, SMEs and development of intellectual property rights (T.C. Strateji ve Bütçe Başkanlığı, 2019). For example, the policies regarding entrepreneurship and SMEs aim to increase the share of SMEs in exports from 56.2% in 2017 to 60% by 2023. The policies also aim to establish a Turkish entrepreneurship ecosystem to improve entrepreneurship. They also state that projects for cultural industries which are based on copyrights will be supported.

There is only a limited amount of data on the size of creative economies of the country. Based on a review conducted by taking into account the sectors that are included in DCMS's classification of creative industries, businesses operating in creative industries only account for 9.3% of all businesses in Turkey. The number of employees working in creative industries makes up only 4.6% of all employees in the country (TURKSTAT, 2020) (See Table 3.2).

**Table 3.2 :** Number of companies and employees on creative industries in Turkey (TURKSTAT, 2020)

| | Number of Companies | | Number of Employees | |
|---|---|---|---|---|
| Division NACE Rev.2 (1) | **Number** | **Share (%)** | **Number** | **Share (%)** |
| 18-Printing and reproduction of recorded media | 3 520 | 0.5 | 31 666 | 0.3 |
| 58-Publishing activities | 2 291 | 0.3 | 21 508 | 0.2 |
| 59-Motion picture, video and television programme production, sound recording and music publishing activities | 2 691 | 0.4 | 18 125 | 0.2 |
| 60-Programming and broadcasting activities | 1 505 | 0.2 | 11 670 | 0.1 |
| 62-Computer programming, consultancy and related activities | 13 003 | 1.8 | 117 101 | 1.1 |
| 63-Information service activities | 1 067 | 0.1 | 15 015 | 0.1 |
| 71-Architectural and engineering activities; technical testing and analysis | 27 689 | 3.8 | 159 580 | 1.5 |
| 72-Scientific research and development | 1 307 | 0.2 | 5 838 | 0.1 |
| 73-Advertising and market research | 7 383 | 1.0 | 59 856 | 0.6 |
| 74-Other professional, scientific and technical activities | 6 441 | 0.9 | 53 179 | 0.5 |
| 90-Creative, arts and entertainment activities | 771 | 0.1 | 5 517 | 0.1 |
| 91-Libraries, archives, museums and other cultural activities | 85 | 0.1 | 2 152 | 0.0 |
| General Total of Creative Sectors | 67 753 | 9.3 | 501 207 | 4.6 |
| General total of all sectors in Turkey | **730 221** | **100.0** | **10 766 477** | **100.0** |

Despite its high potential, Turkey still lags behind the European Union member states in terms of creative workforce. According to the 2019 cultural employment research conducted by Eurostat, i.e. statistical office of the European Union, the average ratio of cultural employment in the European countries is 3.7%. According to the cultural

employment data calculated by including less NACE Rev. 2 economic activities in comparison to the DCMS' creative industries classification, there were 7.4 million of people carrying out a cultural activity or having a cultural occupation. People carrying out a cultural activity or having a cultural occupation in Turkey represent only 2.4% of its total workforce, which means that Turkey is below the average ratio of cultural employment in Europe (See Figure 3.8). This ratio is 4.6% in the United Kingdom and 4% in Germany. Iceland (%5.5), Switzerland (%5.4) and Malta (%5.2) have the highest ratios, while Romania (1.6%) and Turkey have the lowest ratios (Eurostat, 2020) (See Figure 3.8).

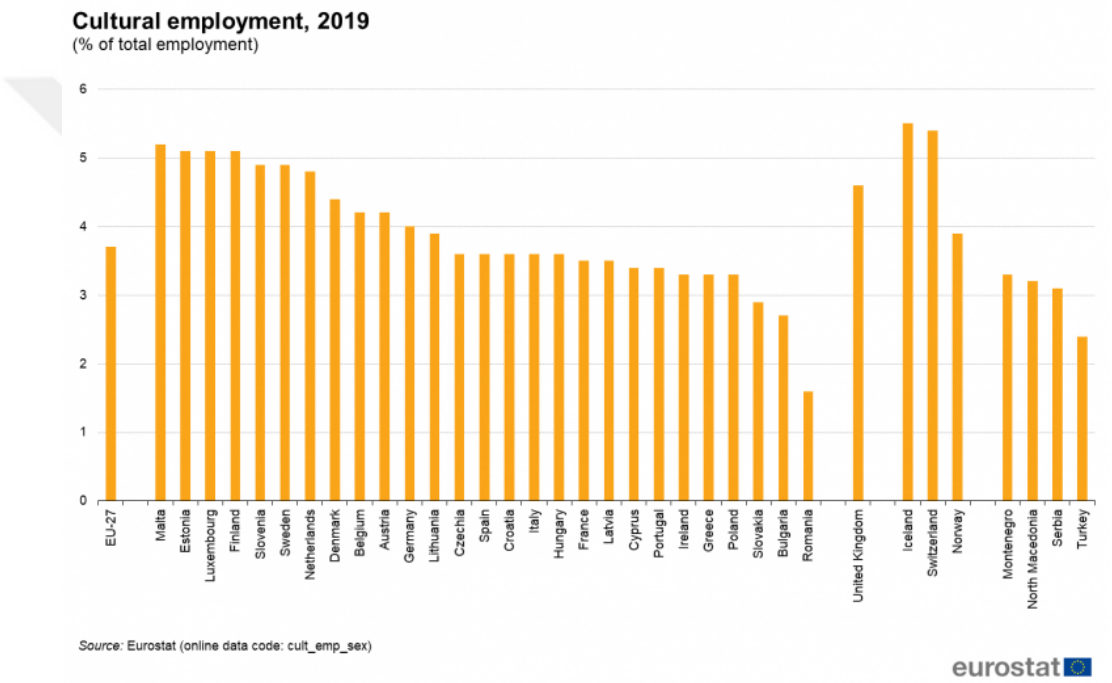


**Figure 3.9 :** Cultural employment in the EU (2019) (Eurostat, 2020).

Istanbul is the center for creative industries in Turkey, and it is also the most well-known city of Turkey on an international level (İKSV, 2016; YEKON, 2014). The UNESCO Creative Cities Network also draws attention to the potential of Istanbul in terms of design capabilities (UNESCO, 2020). Istanbul is included in the City of Design category, which is one of the 7 creative fields of the Creative Cities Network. The Network draws attention to the design events hosted by Istanbul and the cultural infrastructure that supports such events. According to the Network, more than 20 international design events held in Istanbul, including Istanbul Design Biennial, Fashion Week Istanbul, Design Week Turkey and EcoDesign Conference, make great contributions to the city's design culture. The Network further states that the music,

theatre and movie festivals as well as the art and design biennials held in Istanbul create a vivid cultural environment in the city and that the city has a strong cultural infrastructure with 41 congress centers and 225 art galleries. (UNESCO, 2020).

There are only a limited number of academic papers that address actions taken in connection with creativity and creative industries in Istanbul specifically (Aksoy & Enlil, 2011; B. Durmaz, Platt, & Yigitcanlar, 2010; S. B. Durmaz, 2015; Enlil, 2011; Enlil et al., 2011; Evren & Enlil, 2012; Kerimoğlu & Gezici, 2010; Kerimoğlu & Güven-Güney, 2018; Lazzeretti, Capone, & Seçilmiş, 2014; Öztürk Ekdi & Çıracı, 2015; Parlak & Baycan, 2020). On the other hand, efforts to develop policies on a local level consist of the reports drawn up by, and the activities undertaken by the Istanbul Metropolitan Municipality (İMP, 2009), Istanbul Development Agency (İSTKA, 2011, 2014), Creative Industries Council (YEKON, 2014) and Istanbul Foundation for Culture and Arts (İKSV, 2016).

The fact that Istanbul was awarded the title of European Capital of Culture for 2010, the cultural industries activities carried out under the Istanbul 1/100,000 Environmental plan, and the Creative Cities and Industries in the 21st Century Symposium held in 2010 (YTU, 2010) led the way for certain work to be carried out to analyze the city in terms of creative industries and take a cultural inventory of the city (Aksoy & Enlil, 2011). Most of the analyses done during that time were not renewed or updated as required. This prevents Istanbul from being included in intercity comparisons. For example, despite its high potential, Istanbul is not included in 'The Cultural and Creative Cities Monitor' report issued by the European Commission on an annual basis (European Commission, 2019b) as relevant data about Istanbul is not available on a per province basis.

The 2014-2023 Regional Plan prepared by the Istanbul Development Agency is the most up-to-date local planning work which includes the creative sectors in Istanbul. Based on the vision of "City of innovation and culture with creative and free citizens," this plan sets out 3 main axes to prepare the city for the year 2023. The plan aims to contribute to the development of creative industries according to the strategies and objectives set out in line with the axis of 'globally decisive, high value-added, innovative and creative economy'. The plan identifies tourism, finance, logistics, creative industries and R&D-intensive sectors as high-priority sectors in accordance with the 'Competitive Position in the Global Value Chain' strategy. Here the purpose

is to improve the production infrastructure. The plan also includes many objectives which could help development of creative industries, such as increasing urban quality, promoting design and branding, training skilled workforce and developing innovation capacity. It also includes a strategy that directly targets creative hubs. However, pursuant to the strategy of 'Improving and diversifying entrepreneurship-oriented support mechanisms and infrastructure; facilitating access to these supports', the plan also aims to increase the number of organizations such as incubation centers, acceleration programs, technology transfer offices, idea banks, idea support offices, entrepreneurship camps, etc.(İSTKA, 2014).

When it comes to developing policies regarding innovative industries and creative hubs, Istanbul is lagging behind leading cities such as London and Paris. For example, London has been following development strategies for innovative industries since early 2000s. In 2002, report drawn up by DCMS (DCMS, 1998) on mapping creative industries has also been a guiding reference for the United Kingdom and other countries as well. The 'Creative London' document authored in the next years (London Development Agency, 2003) emphasized the importance of creativity for cities. Similarly, local government supported development of (Greater London Authority, 2014) incubations, accelerators and co-working spaces with its report. These organizations had the anticipated effects on development of creative industries. As of 2010, 3.8% and 4.7% of inhabitants of London and Paris, respectively, were employed in creative industries. However, during the same year, this figure was only 0.9% in Istanbul (Kerimoğlu & Güven-Güney, 2018).

### 3.2.1 Creative workforce and sectors of Istanbul

Istanbul is the country's top province with the highest degree of clustering of creative industries (Seçilmiş, 2015). Consequently, Istanbul has the highest number of people working in creative industries among other cities (İZKA, 2013). When similar global cities are examined, it is seen that the people working in creative industries are concentrated in specific cities of the respective country. For example, London in UK, Paris is France, and Barcelona and Madrid in Spain are the cities that have the highest concentration of people working in creative industries (Boix, Capone, De Propris, Lazzeretti, & Sanchez, 2016). For Istanbul, there is no up-to-date annual data on a per province basis about the numbers of businesses operating, and people working, in creative sectors. Though such data is available in previously published international

and national reports and academic studies. Based on 2011 data, 52.4% of people working in creative industries in Turkey resided in Istanbul (YEKON, 2014).

The businesses operating in creative industries in Istanbul generate 74.5% of the total turnover of creative industries in Turkey. Cinema, video and television programming sector has the highest turnover, accounting for 89.2% of the entire turnover of all creative industries (O. Demir, 2018). The movie and TV series market which has made great leaps forward since the 2000s has been instrumental in the rapid development of this sector. Turkey is the second biggest exporter of TV series after the U.S. (Cavusoglu, Horn, Jerome, & Cavazos, 2018; Öztürk & Atik, 2016). In terms of ratio of turnover generated by creative industries in Istanbul to the total turnover of creative industries in Turkey, the cinema, video and television programming sector is closely followed by two other sectors, i.e. programming and publishing sector with a 87.6% of share and the advertising and market research sector with a 83.6% of share in the total turnover of the respective sector. Translation and photography services which are grouped under the 'Other Professional and Technical Activities' category are the sectors that have the lowest share among creative industries with a 46.30% share (O. Demir, 2018).

According to data from an academic study based on 2016 data (O. Demir, 2018), the number of people working in creative industries in Istanbul account for 15.6% of the total number of employees in the country. A total of 496,260 people work in creative industries in Istanbul, and Sisli district ranks first in this regard. In Sisli, there are 92,378 people working in creative industries, which accounts for 18.61% of all people working in creative industries in Istanbul (O. Demir, 2018).

Education level of the population is another key factor for the development of creative economy. 19% of the inhabitants of Istanbul are university graduates (İPA, 2020a). As of 2019, the ratio of the inhabitants of Istanbul with a postgraduate diploma or a master's degree to the total population of the city was 2.38%. In this regard, Istanbul is above the average ratio in Turkey. In Turkey, the ratio of people with a postgraduate diploma or a master's degree to the total population of the country is 1.5%. Istanbul has the highest number of universities among other provinces in Turkey. 41 out of 65 universities in the city have departments that are directly related to creative industries. Although the universities are geographically spread throughout the city, those universities that have departments related to creative industries tend to be closer to the

city center. Most of such departments are located in Beyoğlu, Beşiktaş, Kadıköy, Fatih and Üsküdar (O. Demir, 2018). Based on the Inter-University Entrepreneurship and Innovation Index 2012, 5 of the top 10 universities in Turkey are located in Istanbul. And 18 of the top 50 universities in Turkey are located in Istanbul (İSTKA, 2014).

Ratio of the young inhabitants of Istanbul to the total population of the city means that the city has a significant potential for creative economy. Ratio of the inhabitants aged 15-29 years to the total population of the city is 22.54%. This is almost the same as the overall ratio in Turkey. Ratio of the people in the same age range in Turkey to the total population of the country is 23% (See Table 3.3).

**Table 3.3 :** Comparison of young population in Istanbul and Turkey to the total population of Istanbul and Turkey TURKSTAT (2020).

| | Istanbul | | Turkey | |
|---|---|---|---|---|
| | Male | Female | Male | Female |
| 15-19 age | 552 806 | 516 228 | 3 201 588 | 3 028 526 |
| 20-24 age | 608 631 | 516 228 | 3 408 434 | 3 255 202 |
| 25-29 age | 654 253 | 638 074 | 3 240 543 | 3 130 411 |
| Total Young Population (15-29 age) | 3 486 220 | | 19 264 704 | |
| Total Population | 15 462 452 | | 83 614 362 | |
| Share of Young Population in Total Population (%) | 22.54 | | 23 | |

### 3.2.2 Spatial distribution of creative industry workplaces and cultural infrastructure of Istanbul

In a similar fashion to concentration of certain functions in certain areas in Istanbul, cultural and creative industries are also concentrated in a specific area within the city center. 50% of all cultural and creative industry activities take place in the area of Beyoğlu, Beşiktaş, Eminönü, Kadıköy and Şişli. What makes this area so attractive is that it is easy to access for everyone and has a solid technological and social infrastructure (Öztürk Ekdi & Çıracı, 2015). Similarly, when evaluating art and festivals, film industry and the fashion design industry in the city from a spatial point of view, Enlil (Enlil et al., 2011) observed that these sectors were concentrated within an area which they named as 'cultural triangle' (See Fig 3.10). Rich in theaters, museums, movie theaters, cultural centers and civil architecture, this area is comprised of a triangle with Fatih, Beyoğlu, Beşiktaş and Şişli and the northern coastline of Haliç

in the European Side as well as Kadıköy in the Asian side. However the boundaries of the ‘cultural triangle’ expands towards the north axis similar to CBD.

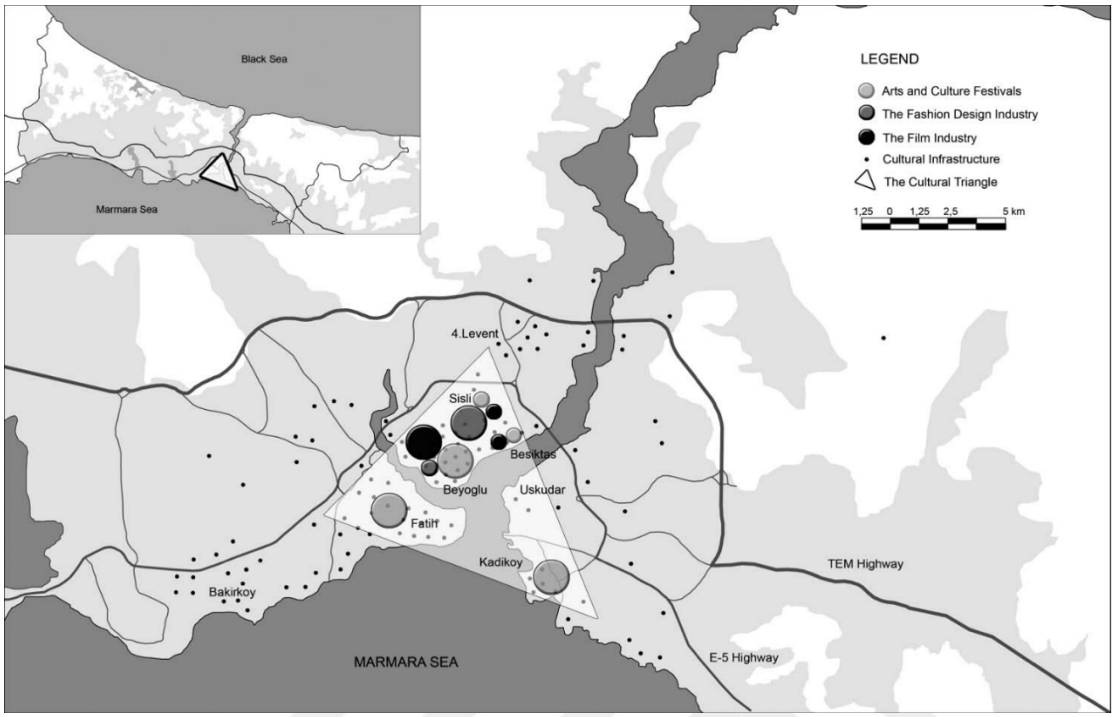


**Figure 3.10 :** Cultural Triangle in Istanbul (Enlil et al., 2011, p. 179).

Firms operating in the creative industries in Istanbul are also clustered in a similar area. In terms of number of businesses, 13.5% of 345,589 businesses operating in the service sector in Istanbul were a part of the creative industries as of 2016. The city had 46,814 workplaces in the creative industries, with most of the workplaces being located in Şişli (6865 workplaces), Kadıköy (4669 workplaces), Beşiktaş (3423 workplaces), Beyoğlu (2085 workplaces), and Zeytinburnu (2073 workplaces). These districts accommodate 40.83% of all creative businesses in Istanbul. This area also contains the CBD of the city. 5 districts with the lowest number of creative workplaces were Adalar (24 workplaces), Şile (46 workplaces), Çatalca (92 workplaces), Sultanbeyli (179 workplaces), and Silivri (201 workplaces). These districts are far away from the city center and located in the periphery of the city. Only 1.15% of all creative workplaces in the city are located in these districts. A reviewof the ratio of workplaces operating in the creative industries between 2009 and 2016 to the all newly opened workplaces reveals that this ratio is highest in Ataşehir, Esenyurt, Başaksehir, Beylikdüzü and Kartal districts (O. Demir, 2018).

Geographical distribution of creative labor across the city shows both similarities to, and differences from, that of creative workplaces. 5 districts that have the biggest shares in the pool of 496,260 creative employees in the city are Şişli (92,378 employees), Beşiktaş (43,414 employees), Kadıköy (38,384 employees), Ümraniye (24,213 employees) and Ataşehir (24,202 employees). Similar to the distribution of creative workplaces, Adalar (202 employees), Şile (222 employees), Sultangazi (1048 employees), Çatalca (1316 employees) and Sultanbeyli (1508 employees) had the least number of creative employees.

In Istanbul, specific sectors of the creative industries have led to formation of creative clusters in specific areas. For example, being the center of movie theaters and movie production activities since the 1920s, Beyoglu is an area where movie theaters and movie production companies are clustered. Although the transformation that occurred in Beyoğlu in the 1980s somewhat diminished this central role of Beyoğlu, the Pera, Galata, Cihangir and Galatasaray neighborhoods which have protected their historical identity have continued to be the first choice of companies in the sector since the end of the 1990s and the early 2000s (S. B. Durmaz, 2015). Similarly, as Nişantaşı housed many textile stores for many years, this also has resulted in clustering of independent fashion designers in Nişantaşı, too (Enlil et al., 2011).

When Istanbul's culture & art activities and consumption habits are assessed in connection with the clustering of creative industries in the city, a similar spatial clustering is observed with these activities and habits. For example, a review of theaters, exhibition centers and opera houses-parts of the culture & art infrastructure of the city-in the city reveals that they are clustered in Beyoğlu and Kadıköy, just like the cultural triangle mentioned above. The north axis, CBD of the city, is the second area with the highest degree of concentration of cultural facilities such as theaters. Most of the private theaters and stages are located within the triangle of Beyoğlu, Kadıköy and Şişli (Korlu, 2016).

Istanbul began to be shaped by fragmented projects, including shopping mall projects and residential projects, especially after the 2000s. This type of projects which are often positioned in areas around the D-100 and TEM highways constitute the new type of consumption and housing areas of the city. When the clustering of creative industries in Istanbul is reviewed from the perspective of the city's consumption spaces, i.e. shopping malls, it is seen that shopping malls have become an important

element of the city culture. Shopping malls are distributed throughout the entire city (See Figure 2.9). Nevertheless, shopping malls are concentrated along the D-100 highway and its access roads, in addition to the CBD. Other than being consumption spaces, shopping malls also represent a lifestyle as they are often designed as part of a large-scale project including residential areas and office spaces, and possess other functions such as the theaters and concert halls within them. Therefore, despite being a resident- and office-intensive area, the triangle of Beyoğlu, Şişli and Kadıköy also houses a high number of shopping malls.

Creative hubs are workspaces that are used by mostly people working in creative industries (Parlak & Baycan, 2020). The relevant spatial distribution has been discussed in depth in section 4.

### 3.3 Evaluation of the Section

A multi-dimensional review of Istanbul is required to be able to analyze the city's creative economy. This is because the historical importance of Istanbul's strategic location, social and economic events that shaped the city, and changing forms of land use have a direct effect on the components of the city's creative economy. Spatial changes in Istanbul cannot be all attributed to a single approach. As a result of different approaches adopted in different periods, the city has evolved into a finance and services city from what was once an industrial city and has been shaped accordingly.

During the period between foundation of the Republic of Turkey and the 1950s, Istanbul was under the influence of statist policies as a new country was being built. Some of the urban planning decisions that would affect the city's future were taken during this period in collaboration with certain experts invited to the country from the West. Construction of large boulevards and reservation of the coastline of Haliç for the industry were included among the decisions taken during this period. These years were also the only period when Istanbul shrank in terms of both economic and population growth. Back then, Istanbul had a single city center with the CBD being comprised of Eminönü, Pera and Galata neighborhoods. Almost the entire production, sales, banking and insurance activities in the city took place in this area.

Then, Istanbul entered into a course of rapid transformation during the 1950s. The city underwent an intensive industrialization process. Istanbul was declared as the

economic center of the country, saw industrial areas being opened one after another and faced an influx of domestic migrants. During this period, although the city's historical center remained the same, the city began to grow towards the north as a result of reservation of the area remaining within Mecidiyeköy, Levent, Şişli, Bomonti, Kasımpaşa and Kağıthane for industrial purposes. The west part of the Büyükdere Avenue, which extends from Şişli to Maslak, was also designated as an industrial area. In line with the economic center role assigned to the city in the 1960s, improvements were made in the public roads, airline and maritime transport capabilities and link roads. Large boulevards and avenues were built within the city. As a result of rapidly increasing industrial investments, new industrial areas kept on emerging in both sides of the city. Quick growth during this period also exacerbated the squatter housing problems.

Starting from the 1970s, employment and commercial activities began to be spread to subcenters. This is because the city center was unable to respond to the current needs of many businesses. At the same time, as industrial companies began to separate their manufacturing divisions from management departments, an increased need for office space emerged in the city. During this period, the traditional city center lost some of its population and shifted toward the north axis. Another significant event which caused the city to shift toward the north was the commissioning of the first-ever bridge over the Bosphorus in 1973 which for the first time connected both sides of the city by road. As access roads were built in connection with the bridge, areas around these roads began to quickly change hands. These roads meant that the concentration in the historical peninsula to shift toward the north axis. Since transportation between the two sides of the city became easier, Beşiktaş and Kadıköy gained even more importance as city centers.

From the 1980s onwards, neo-liberal policies began to shape Istanbul and the efforts to open the city to global markets yielded fruit. While production was the theme of economic activities until then, finance and services sectors gained more and more weight in the city's economy in the 1980s. Being the showcase of the country, Istanbul then began to receive significant investments into high-profile offices, luxury hotels and transportation networks to support the infrastructure of finance and service sectors. The Büyükdere-Maslak axis turned into a financial center with the headquarters of numerous national and international companies. This area of the city completely

differentiated from the historical city center and became a center for high-rise office buildings with remarkable real-estate development investments. The second suspension bridge constructed over the Bosphorus at the end of the 1980s accelerated the city's growth along the Büyükdere-Maslak axis.

Starting from the 1990s, consumption habits of the West prevailed in Istanbul. As high-level services, including information activities, coordination, business management and R&D services, gained more importance together with neo-liberal policies, the service sector changed and grew with more diversified services now being offered. The Sisli-Mecidiyeköy-Maslak axis accommodating large-scale companies, including foreign-capital banks, large conglomerates, multi-national companies and insurance companies in particular, became a new central business district.

As Istanbul transitioned from industry to finance and service sectors, decentralization of the industry began. Areas remaining from the mid- to large-scale industrial enterprises which were moved away from the city were used for big real-estate projects to build luxury residents, office buildings and shopping malls. In addition to real-estate projects initiated in old industrial areas, large construction projects also appeared along the two main highways extending from the East to the West of the city as well as their access roads. New settlements emerged in these areas. Extending up to the water basins to the North of the city, these settlements reached a level that could put the ecological boundaries of the city at risk. As a result of the Marmara earthquake which happened at the end of the 1990s, these areas were put under even more pressure with more settlements being built.

During the 2000s, Istanbul became a very big metropolitan city in spatial terms. Once an industrial city with a single city center during the 1950s, Istanbul turned into a polycentric finance city shaped by global capital in the 2000s. The city's economy is largely dependent on the service (66.98%) and industry (31.83%) sectors. Therefore, land use in the city evolved over the years to cover the functions as required by these sectors. The current CBD is comprised of an area which covers Şişli, Fatih (Eminönü), Beyoğlu and Beşiktaş in the European side and Kadıköy in the Asian side, and it is highly concentrated with management, supervision and coordination functions as well as finance organizations and specialized service and commercial functions. In addition to the CBD, there are subcenters in both sides of the city with a high concentration of office buildings. Other than the CBD of the city, Beyoğlu-Taksim-Nişantaşı, Şişli-

Fulya-Otim, and the area surrounding Başakşehir and the Atatürk Airport have a high concentration of office buildings. In the Asian Side, Kozyatağı, Altunizade, Üsküdar, Kavacık and Ümraniye are also areas with a high concentration of office buildings. Kağıthane, Şişli-Bomonti and Beyoğlu-Piyalepaşa, Merter and Basın Ekspres in the European Side and Kartal-Maltepe, Istanbul Finance Center, Pendik, Tuzla and Ataşehir in the Asian Side are the new rapidly developing office areas of the city. Istanbul began to be shaped by fragmented projects especially after the 2000s, and the new development axes which combine the new type of shopping malls, houses, recreational areas and working spaces form the new spatial pattern of the city.

The current economic structure of Istanbul and the ever-changing land use in the city make it easier to analyze the potential of the city's creative economy. Istanbul is the economic capital of Turkey. Being the locomotive city, it has the highest GDP (30.7%) among other provinces in Turkey. The second city that has the highest GDP is Ankara (9.2%). At the same time, Istanbul also ranks 1st in all activity areas, except for agriculture. Istanbul alone accounts for more than half of all information, communication, finance and insurance activities in Turkey. Similarly, it has the highest concentration of creative economy activities. 52.4% of people working in creative industries in Turkey resided in Istanbul (2011). 74.5% of the total turnover of creative industries in Turkey is generated in Istanbul. The top three sectors generating the highest turnover among creative industries are as follows: (1) cinema, video and television programming, (2) programming and publishing, and (3) advertising and market research.

Istanbul hosts numerous international design and culture events, and it boasts a stronger infrastructure, including theaters, concert halls, exhibition centers and art galleries, compared to other provinces. There are only a limited amount of resources and reports on the size of creative industries and the number of people working in creative industries in Istanbul. These resources indicate that the people working in creative industries in the city makes up only 15.6% of the total number of people employed in the city. Although Istanbul has the strongest figures in terms of creative industries in Turkey, it lags behind other prominent cultural cities such as London and Paris in terms of the level of development of creative industries.

Creative industries are clustered in certain parts of Istanbul, and this pattern of clustering overlaps with the clustering seen in the finance and service sectors. 50% of

all cultural and creative industry activities take place in Beyoglu, Besiktas, Eminonu and Şişli districts. Şişli district has the highest degree of clustering of creative workforce. 18.61% of 496,260 people working in creative industries reside in Şişli. Workplaces also show a similar geographic distribution. Most of the creative workplaces are located in Şişli, Kadıköy, Beşiktaş, Beyoğlu and Zeytinburnu districts. Upon a geographical review of creative workplaces and the people working in creative industries, it is clearly seen that remote districts of the city have the lowest figures.

Areas where creative activities are clustered within the city are also the most advantageous areas in terms of ease of transportation, technological infrastructure and culture-art facilities. The triangle including Fatih, Beyoğlu, Beşiktaş and Şişli in the European side and Kadıkoy in the Asian side is the richest area in Istanbul in terms of social and cultural facilities such as theaters, museums, movie theaters, culture centers and shopping malls. The cultural richness of this area also makes it an advantageous location for education institutions. Universities with departments related to creative industries in Istanbul often prefer this area as the site for such related departments.

Despite making the greatest contribution to the creative economy in the country, there is not any legal or administrative framework that supports this potential of Istanbul. As Turkey does not have a national policy on creative industries, there are only a limited number of statistical studies which can be used to analyze how to utilize the country's potential in this area. However, there are some plans on a local scale on how to utilize this potential of the city. These plans do not include specific provisions concerning creative hubs.

Creative hubs are important in that they provide the ecosystem required for development of creative industries. Therefore, a review of social, economic and physical decisions that have shaped Istanbul's current creative economic geography in a historical context will also lay the groundwork for analyzing creative hubs. In Istanbul, the concept of creative hubs began to develop after the 2010s. An in-depth analysis of creative hubs, which play a crucial role in shaping the creative economy geography of the city, is also important for the creativity ecosystem of the city.

# 4. ANALYSIS OF CREATIVE HUBS IN ISTANBUL

## 4.1 Research Questions, Scope and Methodology

### 4.1.1 Research questions and scope

#### 4.1.1.1 Research questions

Upon the literature review conducted at the conceptual framework stage of the thesis study, it was clear that both physical and non-physical properties were important factors to be considered when defining Creative Hubs (CHs). Therefore, in order to study CHs in depth, a framework was needed that addressed different aspects of CHs. This framework, which consisted of the categories of Structure, Focus, Services and Values, was intended to cover all properties of CHs, whether physical or non-physical. The research questions, i.e. backbone of the analysis study, have been identified in the light of these categories. Under the category of Structure, fundamental properties that comprised both social and physical structure of CHs have been reviewed. Under the main heading of Focus, the affiliated sectors of people and businesses within CHs have been investigated to put forth the relation between CHs and creative economy. In this context, soft and hard services that CHs offer to their users come to the forefront. Under the category of Services, possibilities and benefits that creative hubs provide have been investigated. And lastly, under the category of Values, the value created by creative hubs and the reasons why creative hubs emerged have been investigated from the perspective of founders of creative hubs. The research questions under the categories of Structure, Focus, Services, and Values and the scope of each question are provided in Figure 4.1.

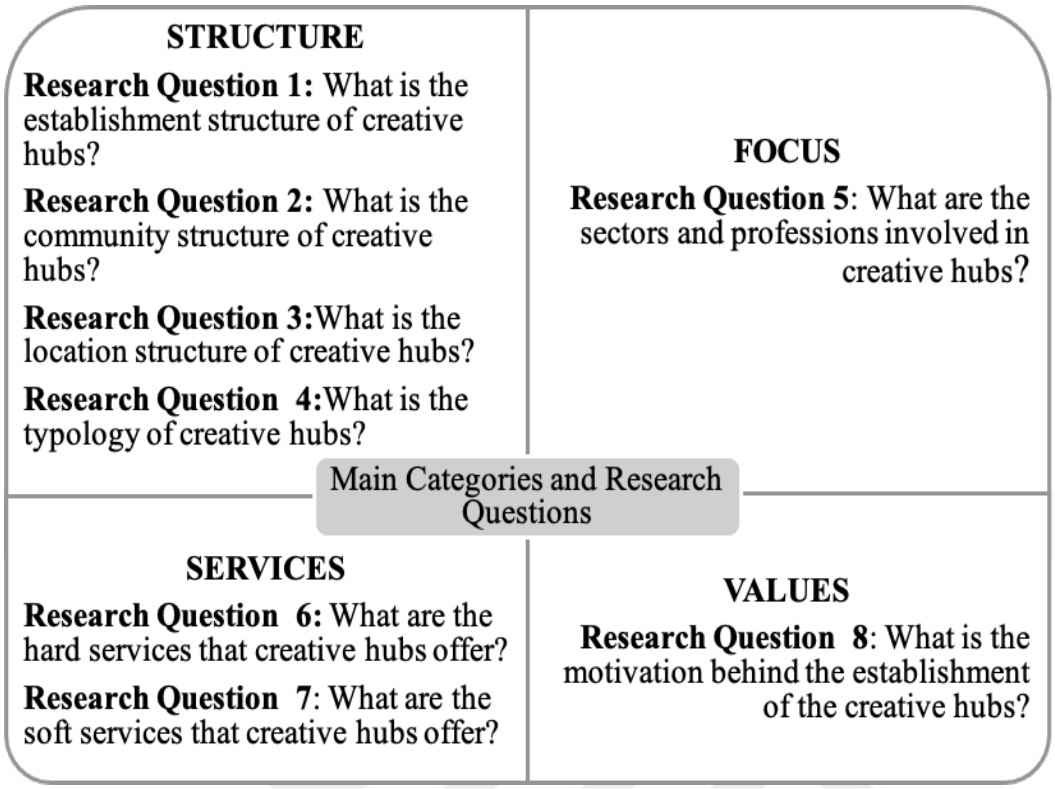


**Figure 4.1 :** Main categories and research questions.

Research Question 1: What is the establishment structure of creative hubs?

Under this research question which is intended to understand how CHs emerged in the first place, investigation has been conducted on when and how these organizations began to appear in the city, with a focus on collaboration structures in place during their formation, presence of any support (if any) and the identity of their investors

Research Question 2: What is the community structure of creative hubs?

Under this research question which is intended to understand the identity of CH users, properties such as age, gender and team size of the people within the community have been investigated.

Research Question 3: What is the location structure of creative hubs?

Under this research question which is intended to understand the spatial relation between CHs and the city, the location structure of creative hubs has been investigated. The subject of location was been addressed in 3 different layers. Firstly, focus was on prior use and current function of the buildings which housed the creative hubs. Secondly, location selection criteria were investigated. Finally, their distribution within the city was examined.

Research Question 4: What is the typology of creative hubs?

Workspaces classified as CHs show different features among themselves. Under this research question which focuses on whether this type of next generation workspaces have properties that can be used to distinguish them from each other, the typology of the workspaces has been investigated. It has been determined that co-working spaces (CWSs) are the workspaces that show the most different properties within themselves. Therefore, following a general evaluation of the typology of CHs, focus has been put on CWSs. Physical and non-physical properties of CWSs were reviewed to reveal their different typological properties.

Research Question 5: What are the sectors and professions involved in creative hubs?

Under this research question which is intended to reveal the relation between CHs and creative economy, the sectors of the people and companies using such creative hubs have been investigated.

Research Question 6: What are the hard services that creative hubs offer?

CHs offer certain hard and soft services to their users. The research was focused on the nature and type of the hard services offered by CHs and the corresponding needs that these services are intended to meet.

Research Question 7: What are the soft services that creative hubs offer?

Soft services offered within CHs are the most distinguishing property of these organizations. A variety of different soft services offered within CHs have been investigated. A relation has been established between soft services and hard services.

Research Question 8: What is the motivation behind the establishment of the creative hubs?

Under this research question which is intended to help understand the reasons why creative hubs emerged, the motivation behind establishment of creative hubs has been examined from the perspective of their founders.

#### 4.1.1.2 Scope

The field study conducted to find answers to the research questions covers sample CWSs, incubation centers (IC), makerspaces and labs. The term ICs used throughout the study refers to Business Incubation Centers. Surveys were made with a total of 49 workspaces, including 20 CWSs, 22 ICs, 3 labs and 4 makerspaces. The sample workspaces have a total of 117 locations in the city including their branches. This number reflects the total number of locations including branches between June 2017 and February 2020. Branches opened or closed down outside the specified date range have not been included in the study. The number of CHs contacted for the survey and the number of CHs included in the research are provided in Table 4.1.

**Table 4.1 :** The number of CHs included in the survey.

| | Number of CHs contacted for the study | Number of CHs that participated in the research | |
|---|---|---|---|
| | | Number of CHs | Number of all Locations (with all branches) |
| CWSs | 23 | 20 | 87 |
| ICs | 26 | 22 | 22 |
| Labs | 7 | 3 | 4 |
| Maker Spaces | 5 | 4 | 4 |
| Total | 54 CHs | 49 CHs | 117 Locations |

The sample with the highest number of locations as included in the study is CWSs with a total of 87 branches. 87 branches spread across the city belong to 20 CWS organizations. CWSs included in the study are summarized in Table 4.2.

**Table 4.2 :** List of CWS in the research.

| No | Name of the CWS | Available Services | Total Number of Locations in Istanbul |
|---|---|---|---|
| 1 | ImpactHub Istanbul | Co-working + Served Office | 1 |
| 2 | KolektifHouse | Co-working + Served Office + Virtual Office + Meeting Room | 3 |
| 3 | Habita | Co-working + Served Office + Meeting Room | 1 |
| 4 | Workinton | Co-working + Served Office + Virtual Office + Meeting Room | 11 |
| 5 | Atölye Istanbul | Co-working + Served Office + Meeting Room | 1 |
| 6 | Idea Kadikoy | Co-working + Meeting Room | 1 |
| 7 | Workhaus | Co-working + Served Office + Virtual Office + Meeting Room | 1 |
| 8 | Olmadık Projeler Atölyesi | Co-working | 1 |
| 9 | Joint Idea | Co-working + Served Office | 2 |
| 10 | Workplace / PlazaCubes | Co-working + Served Office + Virtual Office + Meeting Room | 8 |
| 11 | Levent Ofis | Co-working + Served Office + Virtual Office + Meeting Room | 2 |
| 12 | Regus | Co-working + Served Office + Virtual Office + Meeting Room | 18 |
| 13 | Kamara | Co-working + Served Office + Virtual Office + Meeting Room | 6 |
| 14 | Daire Co-working | Co-working + Meeting Room | 1 |
| 15 | eOfis | Co-working + Served Office + Virtual Office + Meeting Room | 24 |
| 16 | Hamam Arts Hub | Co-working + Served Office + Meeting Room | 1 |
| 17 | Woop Point | Co-working + Served Office + Virtual Office + Meeting Room | 1 |
| 18 | DAM | Co-working + Served Office + Meeting Room | 1 |
| 19 | co-11 Sanayi | Co-working + Served Office + Virtual Office + Meeting Room | 1 |
| 20 | Archerson | Co-working + Served Office + Meeting Room | 2 |

Surveys have been made with a total of 21 ICs involving different stages of the incubation period, such as pre-incubation, accelerator and post-incubation. Although 26 ICs were contacted, 21 ICs accepted to take part in the study. ICs included in the study are listed in Table 4.3.

**Table 4.3 :** List of ICs on the research.

| No | Name | Type |
|---|---|---|
| 1 | Idea Cube | Pre-Incubation / Incubation / Accelerator Centre |
| 2 | Hackquarters | Start-up Accelerator Centre |
| 3 | BIC101 | Accelerator Programme / Center |
| 4 | Workup Istanbul - Iş Bankası | Entrepreneurship Program |
| 5 | InventIST | Pre-Incubation / Incubation Centre |
| 6 | Fikur - Istanbul Kültür University | Incubation Centre |
| 7 | SuCool - Sabancı University | Pre-Incubation / Incubation Centre |
| 8 | Endeavor Turkey | Entrepreneurship Support Network |
| 9 | Yıldız Incubation Centre | Incubation Centre |
| 10 | ITU Seed | Early-Stage Incubation Centre |
| 11 | Bilgi Social Incubation Centre | Incubation Centre |
| 12 | GarantiPartners | Accelerator Programme / Center |
| 13 | KWORKS | Entrepreneurship Research Center (Pre-Incubation / Incubation / Accelerator Centre) |
| 14 | Hayalet Incubation Center-Boğaziçi University | Incubation Centre |
| 15 | TEB Entrepreneurship House | Incubation Centre |
| 16 | Workincubation | Pre-Incubation Programme/ Incubation Program / Accelerator Programme) |
| 17 | Üsküdar Idea Art Centre | Incubation Centre |
| 18 | incuba.city | Incubation Centre |
| 19 | Girişim Fabrikası | Pre-Incubation / Incubation / Accelerator Centre |
| 20 | Acıbadem University | Pre-Incubation / Incubation / Accelerator Centre |
| 21 | Gutto Biz | Football Tech Incubation Center |
| 22 | Inogarart | Incubation Center |

There are less makerspaces and labs in Istanbul compared to CWSs and ICs. Although 10 spaces were contacted, 8 makerspaces and labs accepted to take part in the study.

Despite differences between sample labs, they are all analyzed under the main heading of labs. The labs and makerspaces included in the study are listed below (See Table 4.4).

**Table 4.4 :** List of makerspaces and labs on the research.

| | Name of space | Type | Sub-type | Total Number of Locations in Istanbul |
|---|---|---|---|---|
| 1 | TAK | Lab | Design based Urban Lab | 2 |
| 2 | Başakşehir Living Lab | Lab | Living Lab | 1 |
| 3 | Zemin Istanbul | Lab | R&D and Innovation Center | 1 |
| 4 | Makerhane / Repair Cafe | Makerspace | Makerspace | 1 |
| 5 | Iskele 47 | Makerspace | Makerspace | 1 |
| 6 | Turuncu Maker Lab | Makerspace | Makerspace | 1 |
| 7 | Maker Children | Makerspace | Makerspace | 1 |

### 4.1.2 Methodology and survey

The data used in the analysis section of the study has been derived from the survey. Sample CHs included in the data set of the study were selected according to the snowball sampling method. When selecting CHs, the following definition of CH which had been formulated based on literature review was used: CH is a place with physical and social services where freelancers, entrepreneurs, and micro-SMEs within the creative, cultural, and tech sectors can work, collaborate, share, experience, network, develop projects together, and create ideas.

The survey questions have been formulated around the 4 main categories which cover different properties of hubs in order to gain deep insight into CHs. Thus, each question in the surveys is associated with one of the categories of Structure, Focus, Services and Values. Since CWSs, ICs, labs and makerspaces differ from each other with respect to their organization and operation, the survey questions have been tailored according to the specific properties of each type of space. Accordingly, 3 different surveys have been drawn up according to the above-mentioned categories. The surveys contained 70 questions for CWSs, 57 questions for ICs, and 43 questions for makerspaces and labs (See Appendix). The survey questions consist of open-ended and closed-ended questions. The survey form consists of the following sections about the 4 main categories:

- Participant information

- General Structure
- Sectoral Focus
- Branches Info
- Membership Criteria
- Services
- Application Process an Education (only for ICs)
- Membership Options
- Members Profile
- Number of Members / Team Size
- Events
- Establishment and Partnership Structures
- Location Selection
- Management Structure
- Working Environment
- Decision Making Structure
- Communication
- International Networks and Partnerships
- Feedback Mechanisms

In addition to the surveys conducted to find answers to the research questions, the observations made during surveys, social media accounts, websites and brochures of the spaces have also been used as reference. Besides, geographical data maps have been used for the location and geographic distribution section. This enabled use of details about CHs which did not take part in the study in the location analysis. At the beginning of each analysis section, details about the relevant data set are provided.

## 4.2 The Rise of Creative Hubs in Istanbul

### 4.2.1 Aim and content of the section

This analysis section focuses on the investigation of CHs in Istanbul. It aims, through an investigation of the motivation behind their emergence, to better understand the changing working forms of the city, analyzing CH structure through four main perspectives: structure, service, focus, and values. The scope of this research consists of examples of CHs from Istanbul comprising CWSs, ICs, labs (designed based urban

labs, living labs, and R&D and Innovation labs), and makerspaces. Within this context, a total of 49 CH examples, consisting of CWSs, ICs, labs, and makerspaces in Istanbul, have been chosen for the case study. As these 49 CHs have branches around the city, 117 locations in total have been included in the study (Table 4.5).

**Table 4.5 :** The number of CHs included in Rise of Creative Hubs section.

| | Number of CHs analyzed in this section | |
|---|---|---|
| | Number of CHs | Number of all Locations (with all branches) |
| CWSs | 20 | 87 |
| ICs | 22 | 22 |
| Labs | 3 | 4 |
| Maker Spaces | 4 | 4 |
| Total | 49 CHs | 117 Locations |

### 4.2.2 Structure of creative hubs in Istanbul

#### 4.2.2.1 Establishment structure

CHs are an emerging concept in Istanbul. The city's first CH was established in 1999 as a branch of a global co-working and served office chain. However, this particular company is well known for its served office services, and included a co-working option in its services only in later years, for which specific data is not available. Local instances of CHs have risen rapidly, especially in the last 5 years. The establishment year of the CHs surveyed are shown in Figure 4.2. Although there were increases in the establishment of CWSs in 2006 and 2010, they have had an especially positive trend since 2015. Labs and makerspaces also began to emerge after 2013. Interestingly, the establishment of ICs began to rise rapidly after 2011.

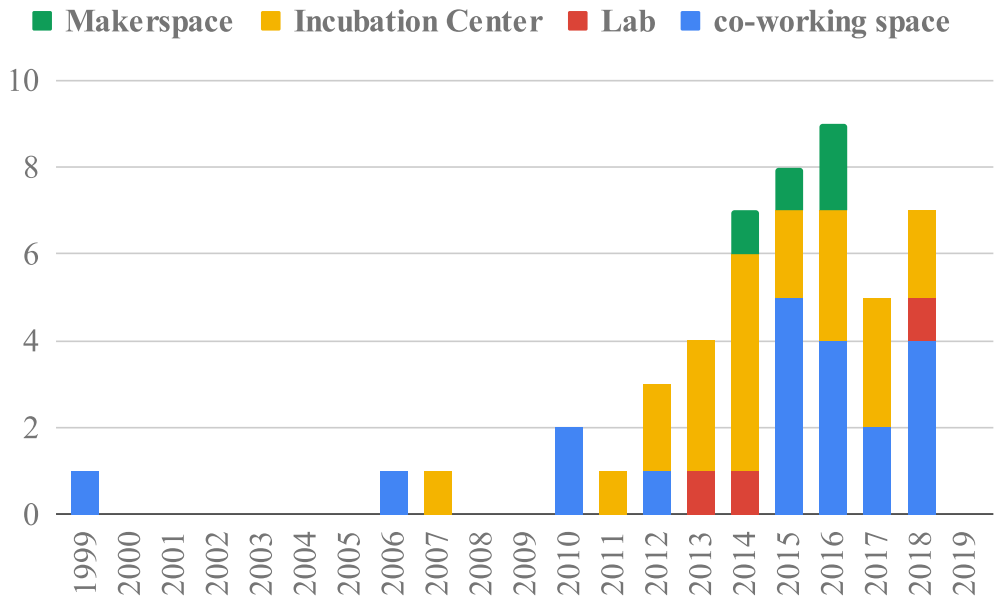


**Figure 4.2 :** Establishment year of creative hubs.

The vast majority of the CHs (80%) in Istanbul have been established as private sector initiatives, which have focused their investments mostly in CWSs and makerspaces. Almost all of the city's CWSs were established by the private sector, with only one only one CWS established by a district municipality. All of the makerspaces were also established as private initiatives. The investments of the public sector have mostly been concentrated in ICs, most of which are housed at universities, including 28% of the ICs participating in this study. It should also be noted that half of the IC investments (50%) comes from universities, but most of them are private university investments (See table 4.6). Outside of academia, a small percentage of ICs are supported by district municipalities and the central government. District municipalities have also taken an interest in labs as a part of their local development projects. Three labs in Istanbul—a living lab, a design-based urban lab, and an R&D and innovation lab—have received investments from the metropolitan and district municipalities.

**Table 4.6 :** Number of public and private investments on CHs.

| | Public Investment | | | Private Investment | |
|---|---|---|---|---|---|
| | Central Government | Municipality | Public University | Private Initiative | Private University |
| CWS | x | 1 | x | 19 | x |
| IC | 1 | 1 | 4 | 9 | 7 |
| Makerspaces | x | x | x | 4 | x |
| Labs | x | 3 | x | x | x |

#### 4.2.2.2 Community structure

CHs are mostly structured around registered membership. A significant majority (85%) require membership to benefit from their services. Those that don't require membership are mostly makerspaces and labs. Similarly, CWSs with only a hot desk option have no membership obligations, being based instead on daily or hourly use. However, the membership process varies between ICs, CWSs and makerspaces. All ICs have application processes for their programmes and require membership. Approved applicants become part of the IC, obtaining access to all services that IC offers. The membership process works differently for CWSs. Most, however, are based on the membership model in order to build a stable internal community. In queries involving average number of members, only CHs with a membership model were included in the assessment.

The findings, shown in Figure 4.3, indicate that CHs are mostly small communities, with most possessing fewer than 50 members. Those with more than 500 members are all CWSs with many branches around the city. The number of branches varies between 6 and 24, with locations in the most accessible areas of the city.

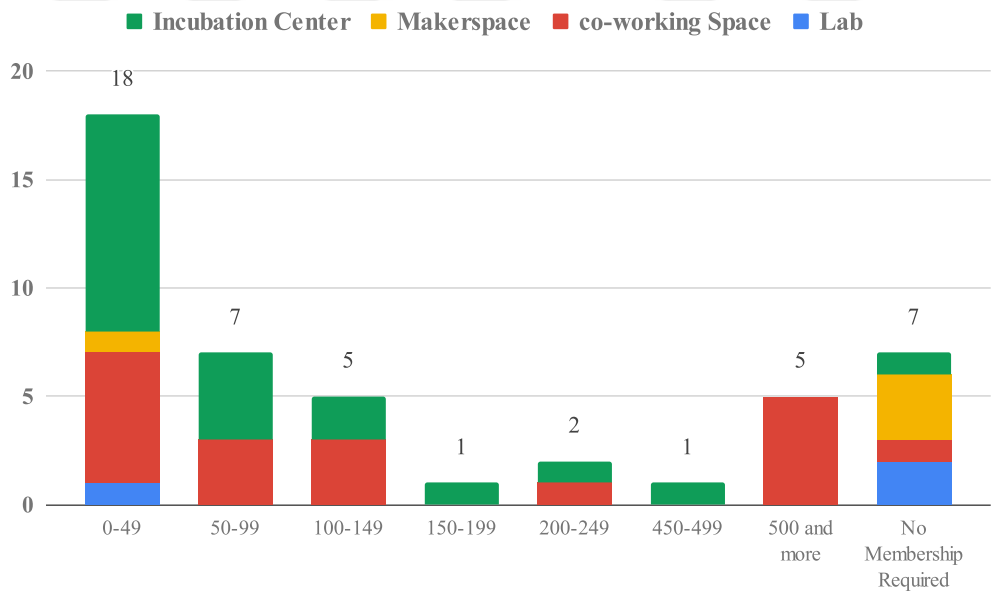


**Figure 4.3 :** Number of members in CHs.

Membership application processes generally revolve around face-to-face surveys, with CH leaders deciding on a new members' inclusion according to their potential contribution to the community or rapport with other members. Interviewee 13 is summarized their selection process as follows: "We don't have strict selection criteria

for our new members who are going to use this space. We accept people who we think can be in harmony with us. Because we also work here and we are like a family here. So, we accept people who we think can be part of this family."

Another creative hub leader (interviewee 4) points out that despite there are no selection criteria, there is a natural filter for people who wants to work here. In this context, interviewee 4 is explained the situation as follows: "We don't have selection criteria. Our website is a kind of natural filter for that. They can understand our approach from there."

Research findings concerning age and gender have been classified separately for ICs, makerspaces, CWSs, and labs to highlight the difference between their ecosystems. Members of the CHs are predominantly from Generation Y. The distribution of age groups is outlined in Figure 4.4.

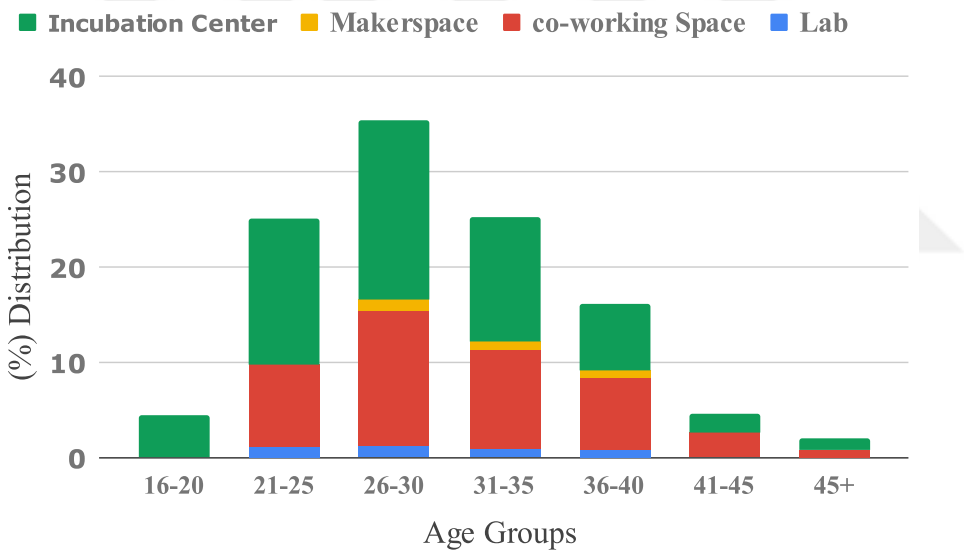


**Figure 4.4 :** Distribution of age groups in CHs.

A significant majority of the members of CWSs, makerspaces, and labs are between the ages of 21-40. Members are mostly from Generation Y, and surveys with IC managers indicate that applicants are mostly young professionals who have decided to focus on their own projects after a period in the private sector or newly graduated young entrepreneurs. CWS managers, who don't keep data on the age groups of their members, shared their own observations that most of their members are under 40 years old (and in particular are between the ages of 31 and 35). Additionally, their members in the 21-25 age range are mostly students or newly graduated young people.

Entrepreneurs running their own start-ups generally fall between the ages of 36 and 40.

Gender was evaluated for CHs with a membership option, 83% which keep data about gender. CH leaders generally considered the ratio of female to male a natural phenomenon, not letting the question of gender influence the member selection process. While there were some CHs more concerned about the distribution of gender that tried to maintain a balance between female and male, they did not significantly influence the numbers; CH members were significantly more likely to be men, with females accounting for 31% of CH members overall, and only 22% of IC members.

### 4.2.3 Focus of creative hubs in Istanbul

The establishment manifestos of many CHs (further discussed in the 'values' section) set out aims to bring in members from different disciplines. The findings of this study indicate that 80% of the participants are in fact multidisciplinary institutions. Sector specific CHs are mostly makerspaces, incubators, and some of the labs. Although focused on specific niche areas, the goals of these more narrowly focused CHs are still connected to the creative industry sector. Interviewee 14 is pointed out this relation as follows: "We are mainly interested in emerging technologies and the implementation of them on art, design, education and advertisement before their mass production process. We work on creating user experience for individuals and building interactive experiences as a physical extension."

While all CWSs multidisciplinary places that encompass a wide range of professions, makerspaces are focused on specific areas such as technology education and DIY culture. Only 24% of ICs are focused on one specific area such as social entrepreneurship, software, health, football technologies, and defense technologies. Although most ICs are not focused on any specific area, they may have priority sectors.

Multidisciplinary CHs, which consist of members from different sectors, comprised the majority of research participants. Because CWSs and ICs are much more commonly interdisciplinary in nature, makerspaces and labs have been excluded from investigations of profession involved in CHs. The results for CSWs and ICs have been given separately (Figures ***4.***5 and ***4.***6) to highlight the differences between them. The top 5 professions in CWSs are software development, consulting services, advertising, web design and IT Services. According UNCTAD'S classification of creative

industries (UNCTAD, 2010), 8 professions in top 10 professions in CWSs belong to creative sectors (Figure 4.5).

The results for the distribution of professions in ICs have been evaluated from a different perspective. Taking into account the ongoing debate on whether science and R&D are components of the creative economy (UNCTAD, 2008), the main professions involved in ICs are categorized more broadly than in UNCTAD's classification in consideration of science-related sectors. ICs host mostly entrepreneurs and start-ups that operate at higher levels of technology-related services and science. Interestingly, the result for the top sector involved in ICs parallels that of CWSs; ICT sectors, which include mainly software development related businesses such as SaaS, mobile applications, advertising technologies, industrial software and automation, marketplaces, the development of e-commerce sites, big data, communication and transportation, fintech, portals, web-based technologies, platforms, VR, and IT, are the dominant professional category in ICs (64.5%). Health and bio-technologies, the next most popular category, covers only 11.1% of the projects and start-ups in ICs. As is shown in Figure 4.6, other categories, such as electric&electronics and machinery (advanced electronics, advanced materials, advanced technology machinery and electronics, hardware, machinery, mechanics and electronics, nanotechnologies, and material technologies), nourishment and chemistry, education and governance (education, governance, and social entrepreneurship) and others (finance, accounting, creative and cultural, maritime, textile, defense, and aerospace) constitute only 24.4% of the areas supported in ICs.

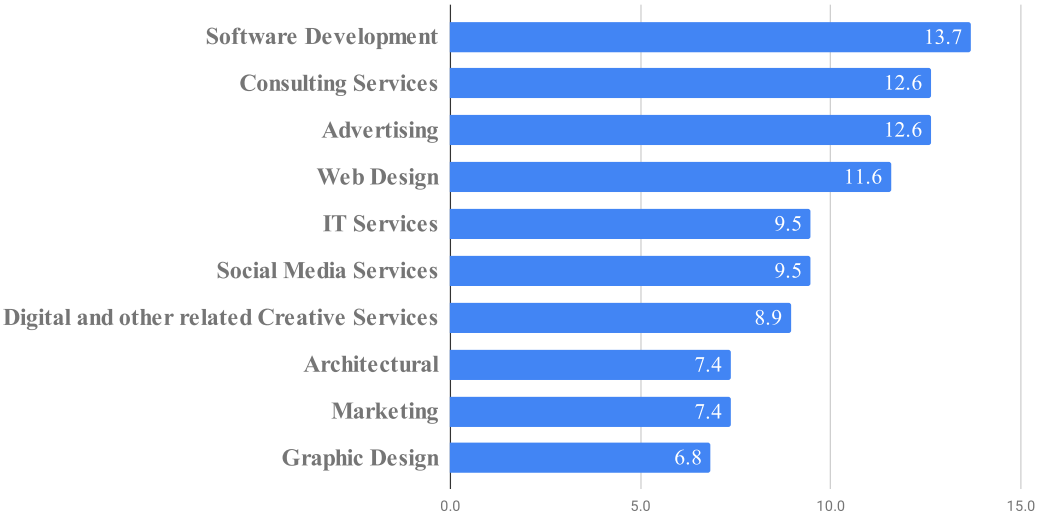


**Figure 4.5 :** Distribution of top 10 professions in CWSs.

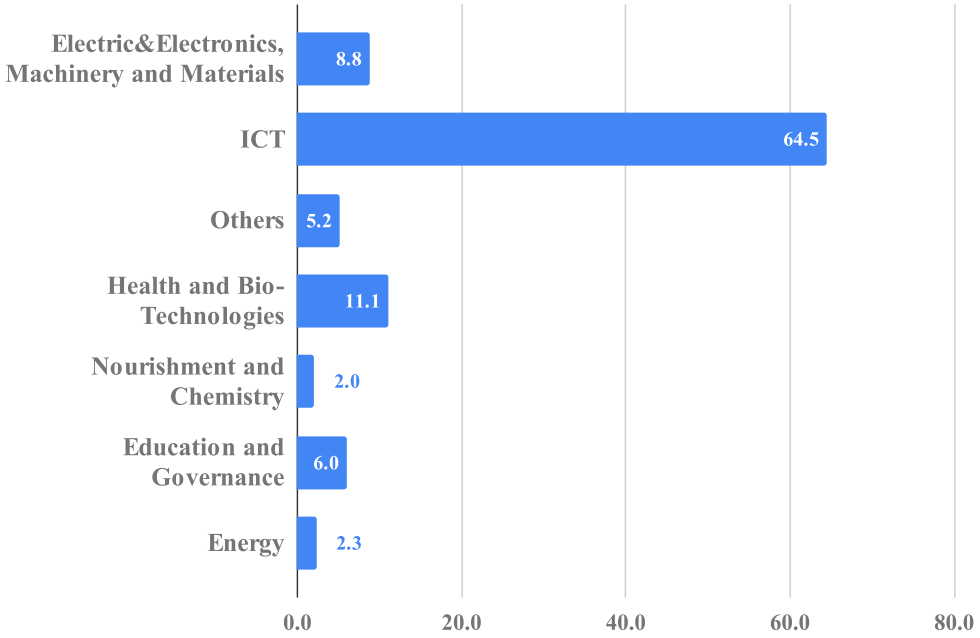


**Figure 4.6 :** Category of supported projects in ICs (%).

### 4.2.4 Services

One of the main aims of CHs is to build a community among members. Therefore, CHs are dominantly membership-based spaces; only 15% don't require membership to benefit from their services, almost all of which are labs and makerspaces. All CWSs, except those that offer only hotdesk options, offer inductees different membership options. The membership process for ICs differs, with an open call over the year or for a limited period of time. After a committee-based selection process, applicants elect to join an accelerator, pre-incubation, or incubation program. The program provides support in the form of office space (desk and computer), mentorship, training, networking, workshop, or laboratory according to the organizational needs of the applicants. ICs are known more for their support mechanisms, such as mentorship, training, etc., rather than physical support such as office space, though there are examples of ICs in which space is as important as other support mechanisms. Such ICs provide support for projects which require laboratory or makerlabs for research or prototyping and are generally nested in universities. CWSs also offer varying membership options. The information gathered in the course of the study indicates that the most common of such options was a flexible desk. Fixed desk, closed office, virtual office, meeting room/venue, hotdesk, and community membership are other options provided by CSWs. (See Table 4.7).

**Table 4.7 :** Membership options in creative hubs.

| Membership Option | Description |
|---|---|
| Flexible Desk | An unreserved desk on a common area |
| Closed Office | Dedicated room with desk and other optional equipment (serviced office) |
| Fixed Desk | Dedicated desk on a common area |
| Meeting Room/ Venue | A dedicated meeting room or event space for meeting, workshops or special events |
| Virtual Office | Business address with options such as mail handling and telephone answering |
| Hotdesk | A desk for hourly or daily use |
| Community Membership | Access to community network |

The facilities that CHs offer their members vary widely; some offer meditation rooms and yoga sessions. They also offer additional services such as access to digital community networks, IT support, childcare, and use of the hub's mobile app. All CHs generally offer the physical office materials that a person needs for office work, such as a desk, printer and coffee (See Table 4.8).

**Table 4.8 :** Services that creative hubs provide.

| Basic Services | Additional Services |
|---|---|
| Desk | Access to the digital network |
| Printer | Matchmaking for business |
| Fast Internet | Discounts on some special products |
| Cleaning Service | Consulting community |
| Cabinets | IT support |
| Snacks § drinks | Monthly magazine of the hub |
| Kitchen | Personal assistant |
| Meeting room | Childcare |
| 7/24 Access | Mobile app of the hub |
| Security | Reception service |
| Access to the events on the hub | Meditation room |
| Makerlab (if its available) | |

CHs, however, promise more than physical services for their members. In fact, physical services are just a stimulator of services and interactions. Accordingly, CH leaders consider themselves providers of an environment conducive to the development and implementation of new ideas. Just as Parrino (Parrino, 2015) underlines the importance of proximity for knowledge exchange, this study

demonstrates that CHs provide a creative environment through tools such as the physical space itself (the design of the space and the atmosphere) and events. Interviewee 5 states the importance of the design for social interaction as follows: *"*We provide an environment for our members to develop and implement new ideas by organizing events. We purposely designed the space considering this situation. When there is an event in the hub, you exposed to it and you find yourself in it. We know that it makes the place a little bit noisy and full of action but we desired it. Even if you have a closed office, you don't have to be in it all the time. You can work in the common area or even in the event area. We encourage this, so we designed this space from the beginning for enabling social interactions."

Most events are organized for the purpose of creating connections between members. ICs organize such events as a part of their programmes; other CHs organize events not only as promised parts of their programmes but also to foster community within hubs. These events can be either member-exclusive or public; member exclusive events differ between ICs and the other types of CHs. ICs organize events such as training programs, entrepreneurship events, and mentorships sessions, while other types of CHs organize events for skill sharing and brainstorming. Moreover, all CHs emphasize that social interaction events are as important as training, skill sharing, and education programmes. The main reason to organize such events is to create an environment for members to come to know each other better, have good time, feel at home, and build community through interaction. Public events are an important part of such interactions. In fact, most CHs focus on public events in order to improve their images, reach more people, and create networking opportunities between members and visitors.

**Table 4.9 :** Events in creative hubs.

| Member Exclusive Events | | Public Events |
|---|---|---|
| Meetings | Social Interaction Events | |
| Feedback sessions: to receive feedback and guidance from the community<br><br>Skills Sharing: Workshops organized by community members on their own professions or interest<br><br>Brain Storming: Develop new ideas together about an issue or project<br><br>Training (only in incubation centers): special training sessions in accordance with the need of the entrepreneur or start-up (business plan training, presentation skills training, project writing training, basic law-finance trainings for startups etc.)<br><br>Mentorship (only in incubation centers)<br>Investor Meetings (only in incubation centers)<br><br>Networking Sessions | Happy hour<br>Jam sessions<br>Outdoor Activities<br>Movie Nights<br>Community Brunch/Dinner<br>Music Therapy Sessions<br>Hobby Workshops<br>Yoga sessions<br>Breathing exercises<br>Birthday Parties<br>New Year Parties<br>Board Games | Meetups<br>Knowledge Transfer Events<br>Social Entrepreneurship Events<br>General Entrepreneurship Events<br>Fucked Up Nights (Events about failed start-ups)<br>Mindfulness Events<br>Hackathons<br>Ideathons<br>Design and Technology Talks<br>Impact Meetings<br>Innovation Talks<br>SEO events<br>Adwords Events<br>Sustainability Talks<br>Hobby Events (Coffee workshops, chocolate workshops, cooking classes, mandala workshops, wine tasting events, etc.) |

Organized events have a significant effect on possible collaboration projects among members. Although some CHs have dedicated events for these purposes, such as feedback and brainstorming sessions, most collaboration arising from events occurs organically. In such cases, ICs should be evaluated differently from the rest of the examples, as the structure of ICs is focused on supporting projects and ideas through mentorship and training programmes when help or collaboration is needed at a strategic point. The drawback to such a rigidly defined structure is that working

together with other teams in the same environment or participating events always offers the chance for future collaboration. Interviewee 4 states the importance of events to boost the interaction among members as follows: “Spontaneous events are much more effective for developing projects together. For example, board game nights have a better effect on that instead of scheduled ones. They have direct communication through that events and start to talk about life and their projects after spending time together. Design of the space is a part of it. They can focus on their own work in small closed offices but they get socialize whenever they want on common areas.”

When people share the same place, they get used to each other after a while and start to chat. It creates a social interaction environment for people from different disciplines who has less change to work on the same environment in normal circumstances. The following example is quoted for this situation is quoted from Interviewee 9: “When you spend time with someone in a co-working area, you start the chat after a while and talk about your professions. For example, we have architectures in one of our closed office and there was an IT firm at the opposite of it. Architects designed IT firm’s new office. Their own organic communication caused that. We didn’t intend to do something extra.”

Besides the organic connections caused by sharing the same space and participating events, the results indicates that hub managers encourage their members for transparent communication. Hereby, hub members generally consult to hub managers when they need a consultation on a project or need a key person at a point. Hub managers generally direct them to the right people from their network. Some creative hubs do in a systematic way by informing other members when a new member come in or giving access to a virtual network of different people from different professions to members.

### 4.2.5 Values of creative hubs in Istanbul

A description of the values embodied in CHs is key to understanding the motivation behind their establishment, given their prominence in establishment manifestos. When asked to describe their motivation to establish their hubs, many CH leaders gave similar answers: building networks, creating multidisciplinary environments, supporting creative processes and entrepreneurship, sharing knowledge, finding solutions to problems together, gathering creative individuals, and participation. In

short, they describe their hubs as more than regular office spaces, emphasizing the importance of network connections and the social environment of their space over the physical environment. Indeed, the concepts used to describe these hubs, often highlighting the importance of social connections within a space, correspond to the reasons behind their establishment. An interviewee is stated the inspiration behind their establishment as follows: "We are firstly a CWS and then a business….. We want to create a network rather than just space. We inspire art and sport. Because we believe in team spirit and fair play. We consider our freelancers as artists. Because they create unique things."

ICs were excluded from queries concerning the motivation to establish a CH, as their reasons are specifically outlined, e.g., the provision of services and environments for start-ups and entrepreneurs. As considering 86% of CHs provided an answer for this question, most leaders of CWSs, makerspaces, and labs (50%) decided to establish their hubs after similar personal experiences of being part of a CH or experiencing the same needs, such as networking, office space, or like-minded people, while they were developing a new idea or business. Their ideas thus formed around people with the same needs. Participation in a CH before forming their own hubs also had a positive effect on their motivation. In this context, CHs themselves can be considered examples of start-ups and entrepreneurship. Interviewee 5 is explained the motivation behind establishing a CWS as follows: "We (3 co-founders) had a desire to quit our regular jobs on corporate firms for a long time without any future plan. Because we were so tired of rules, dress codes, lack of creativity, bureaucracy, and etc. Our friend had a place in Karaköy where they use it with their friends from abroad to developed projects together or using as a workplace whoever needs it. While we were using the space, we experienced that the concept of co-working was the opposite of everything we had in corporate life. This made us excited to establish our creative hub which can be a solution for this ecosystem."

Similarly, the second most common reason (21%) to establish a CH was to bring similar minds together by creating a physical or virtual place for interaction. Other motivations behind the creation of CHs were:

- To provide a space and interdisciplinary network for generating projects and new collaborations

- To build better collaboration over changing working conditions/systems

- To find solutions to urban problems with the participation of locals and decision-makers
- To create a sustainable ecosystem with our stakeholders
- To provide a supportive working environment for creatives
- To support our art scene with co-working
- To support the local government's vision plan

### 4.2.6 Results of the rise of creative hubs in Istanbul

The section was organized around 5 research questions concerning the main categories mentioned in the methodology section, such as Structure, Focus, Service, Values. It was aimed to find answers for the related research questions:

R.Q.1 What is the establishment structure of creative hubs?

R.Q.2 What is the community structure of creative hubs?

R.Q.5 What are the sectors and professions involved in creative hubs?

R.Q.6 What are the hard services that creative hubs offer?

R.Q.7 What are the soft services that creative hubs offer?

R.Q.8 What is the reason for and the motivation behind the establishment of the creative hubs?

CHs hold a growing importance for Istanbul. The findings of this study suggest that any definition of these cooperatives should highlight that they provide an environment where people can work, share ideas, find solutions to problems, cooperate, socialize, access knowledge, make connections, and create networks.

The aim of the present research was to understand the reason for the emergence of CHs in order to gain a perspective on the changing working forms of the city. The emergence and the growing importance of these new working forms are closely connected to changing economic trends, as creative industries, along with the service sector, are driving factors behind economic growth in advanced economies. Istanbul has limited data available for the analysis of creative industry the city. Despite this lack of up-to-date statistics, the city has experienced a consistent shift in its economic base from manufacturing to services since the 1990s (Evren & Enlil, 2012). Corresponding to this shift is the formation of a strong base for most of the creative

industry sectors; the city is home to 59% of total employment in the advertising industry, 45% of publishing and printing, 42% of architects, and 47% of the qualified workforce in the software industry (Evren & Enlil, 2012), for which in particular the city shows great potential. From the perspective of economic shares, the software industry has 33,25%, architecture 23%, and advertising 19,76% among all creative industry sectors (Aksoy & Enlil, 2011). The results of the focus category in this research explicitly reveal this trend in Istanbul. Software is the top sector in CWSs, while the most supported project area in ICs is ICT. All of the next most common sectors involved in CHs are also from creative industries. The relationship between the professions involved in CHs and the creative industries also explains the membership makeup of the CHs, who are mostly freelancers, entrepreneurs, micro-SMSs, and start-ups owned mainly by young professionals and newly graduated individuals from Generation Y.

This study confirms that most of the professions involved in CHs fall under the umbrella of the creative sectors; the main focus of these creative workers is to build up their projects and ideas with effective and flexible rather than rigid and distracting solutions. While the mostly project-based structure of creative jobs provides flexibility for their working conditions, it also causes insecurities in creative labor conditions. The results of this research support the idea that firms and individuals in creative sectors tend to look for flexible and cost saving solutions, such as flexible rent options and served infrastructure, which is a benefit of sharing the same infrastructure with other members. As discussed regarding the values category, the main two reasons for establishing a CH from the founders' perspective are illuminated by these needs: CH leaders in their past experiences developing projects or starting a business felt similar necessities (low cost and flexible working spaces and the presence of like-minded people). Moreover, these leaders desired to bring similar minds together by creating a shared physical or virtual space. These values explain the primary motivation behind the emergence of CHs. Their emergence is also associated with the sectors in which CH leaders and members operate. These new sectors, specified as creative sectors in this research, require new and different working forms and solutions that cities didn't previously require. CHs respond to this emerging need caused by the shift in urban economies. In this sense, CHs differentiate themselves from other workplaces with the services that they provide for their members. Moreover, these services respond not

only physical needs, but also to social needs such as networking and socializing. As discussed in the service section, such social services (aka soft services) are distinctive features of CHs, providing an environment for the exchange of tacit knowledge. CHs also provide physical facilities and so-called hard services, such as flexible rent options and served infrastructure, which offers the benefit of sharing the same infrastructure with other members, emphasizing the importance of the sharing economy. These services are crucial for the users of CHs. Considering all the aspects of CHs (structure, services, focus, values) these spaces have emerged as a new form of workspace and business operation in the creative economy era, taking the form of new landscapes in the post-industrial city (Gospodini, 2008), compact forms that signify epicenters of activity in the inner city.

The proliferation of CHs over the last 5 years has shown that there is a demand for this new type of organization in the city. It is also a result of the changes in the urban economy. The number of CWSs and ICs is significantly higher than that of labs and makerspaces in Istanbul. This finding provides insight into the great potential for a creative workforce and the entrepreneurship ecosystem in the city. This information can be used to develop policies aimed at the development of those workplace organizations by local authorities. And even in the presence of government support, more efforts are needed to make labs and makerspaces more accessible to city dwellers. However, considerably more work will need to done to investigate other aspects of CHs in Istanbul. A greater focus on the location patters of CHs in the city could produce interesting findings that provide a more detailed account of their development. Nevertheless, detailed research on the members of CHs would be a fruitful area for further work for a better understanding of these institutions from members' perspectives.

### 4.3 Location Analysis of Creative Hubs in Istanbul

#### 4.3.1 Aim and content of the section

The geographic distribution of CHs in Istanbul and their location selection decisions have been analyzed under four different topics. First, it has been investigated whether the buildings occupied by CHs used to serve a different function before or not. For those buildings which were used for a different purpose in the past, their former functions have been found out. Secondly, current use of the buildings which are

occupied by CHs has been examined. Thirdly, the factors that creative hub leaders considered when deciding on location selection have been examined. Finally, geographic distribution of creative hubs within the city has been analyzed. Data and information obtained from site visits, onsite observations, phone calls, web searches and geographic info maps have been used as reference when studying the functions of the buildings and geographic distribution of creative hubs within the city. Information about former use of the buildings and location selection decisions were obtained through questions asked during face-to-face surveys and phone calls. Since data about current use of the buildings, former use of the buildings and geographic distribution of creative hubs was collected from various resources (e.g. web searches, geographic info maps, onsite observations, etc.) including CHs which did not accept to take part in the study, the study regarding location selection decisions covers a much broader sample. Scope of the location analysis section of the study is summarized in Table 4.10.

**Table 4.10 :** Number of the CH locations included in the research for location analysis by sections.

| | Number of the Locations Included for the 'Former Use of the Buildings' Section | Number of the Locations Included for the 'Current Function of the Buildings' Section | Number of the Enterprises Included for the 'Location Selection Criteria' Section | Number of the Enterprises Included for the 'Spatial Distribution of Creative Hubs' Section |
|---|---|---|---|---|
| CWS | 91 locations | 91 locations | 18 enterprises | 91 locations |
| IC | 26 locations | 26 locations | 19 | 26 locations |
| Labs | 7 locations | 7 locations | 3 | 7 locations |
| Makerspaces | 5 locations | 5 locations | 4 | 5 locations |
| Total | 129 | 129 | 44 | 129 |

### 4.3.2 Former use of the buildings occupied by creative hubs

Changes in the function of buildings used by CHs have been examined to gain an in-depth understanding of location selection of CHs in Istanbul and review the related location patterns. It has been found out that the buildings occupied by 22% of the CHs used to serve a different function. Those buildings were often used for residential purposes. Of the buildings which used to serve a different function, 60% of them were used for residential purposes, 28% of them were used for industrial purposes and 12%

of them were used for social activities. Details about former use of the buildings are provided in Figure 4.7 per CWSs, ICs, labs and makerspaces.

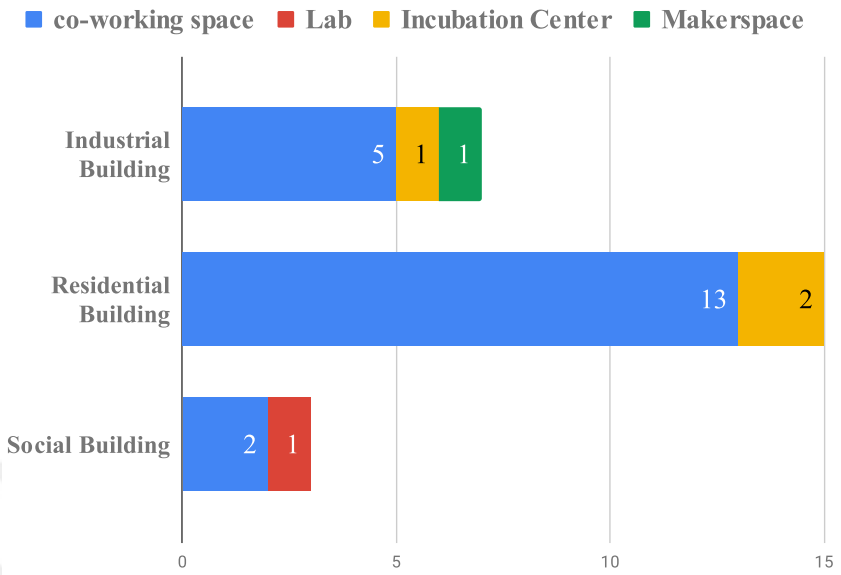


**Figure 4.7 :** Former use of the buildings occupied by creative hubs.

Use of residential buildings is mostly preferred by CWSs. Labs and makerspaces do not prefer using buildings which were previously used for residential purposes. Only a small part of ICs (2 ICs) has selected buildings which used to function as a residential building. There are different types of residential buildings among the buildings which were used for residential purposes in the past. These include historical residential buildings (40%), Istanbul mansions (40%) and residential apartment buildings (20%) (See Table 4.8).

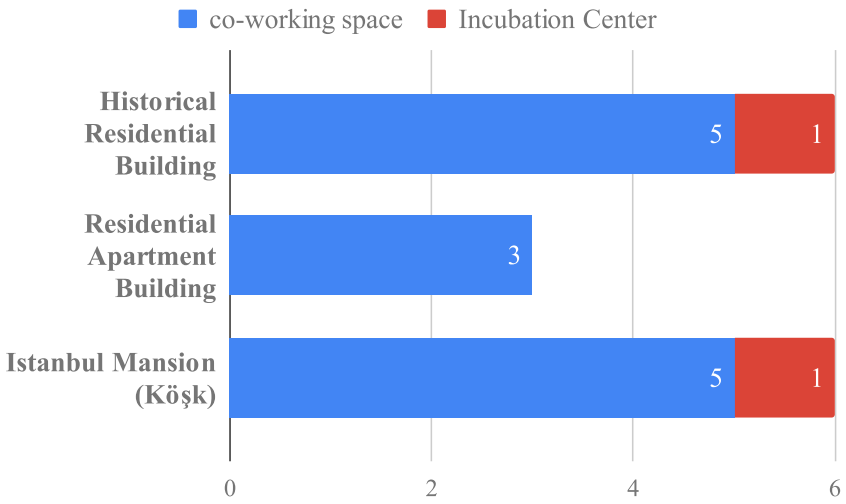


**Figure 4.8 :** CHs located in buildings used as residential buildings in the past.

The types of residential buildings most preferred by CWSs are historical residential buildings and Istanbul mansions. Historical residential buildings refer to the multi-storey old buildings with a flat on each floor as typically seen in Istanbul (See Figure 4.9). Istanbul mansions are one of the most important examples of civil architecture in the history of Istanbul, often occupied by only one household (See Figure 4.10). Residential apartment buildings refer to those buildings whose function has changed over time and some parts of which are still used for residential purposes, while a floor of it is reserved for commercial use. This type of old residential buildings is only preferred by CWSs.

**Figure 4.9 :** A building currently occupied by a CWS, with former use as a historical residential building (URL-1).

**Figure 4.10 :** A building currently housing an incubation center, with former use as an Istanbul mansion (URL-2).

Old industrial buildings also changed functions, turning into areas selected by CHs. Buildings with former industrial use include buildings which were previously used as a printing house, textile atelier, textile warehouse or woodshop. Majority of this type of buildings are occupied by CWSs (See Figure 4.11). Additionally, there are one makerspace and one IC located in buildings which used to house an old textile atelier.

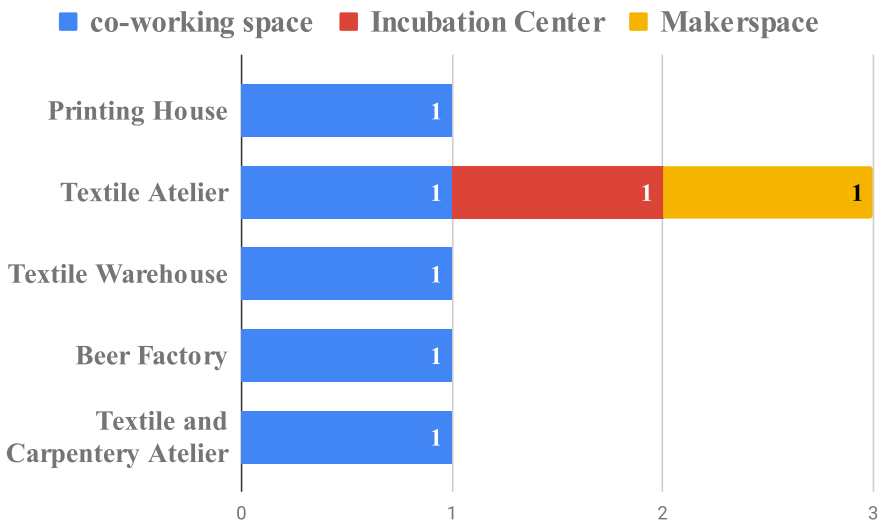


**Figure 4.11 :** Former uses of buildings which used to be industrial buildings.

Only few buildings which housed a social function in the past are used by CWSs and labs. Examples of buildings formerly used for social purposes include an old movie theater, a restaurant complex and an old Ottoman Turkish bath. This type of buildings is again used mostly by CWSs. The old Ottoman Turkish bath and the restaurant complex are currently used as a CWS, while the old movie theater building was renovated and opened for use as a lab. There is not any sample IC or makerspace in this type of buildings.

### 4.3.3 Current function of the building

As part of the research on the types of buildings housing CHs in Istanbul, current functions of the buildings currently occupied by CHs have been investigated. For this purpose, first the basic functions of the buildings were determined. The basic functions determined are as follows:

- Commercial building
- Sport complex
- Mixed use building

- Transportation building
- Social and commercial complex
- Renovated residential building
- Public building
- Education building
- Social complex
- Industrial complex
- Gated community

Among the basic functions determined, 78% of CHs are located in buildings that are used for commercial purposes (See Figure 4.12). Education buildings rank the second type of buildings housing the most CHs, but they correspond to only 8.5% of all CHs. Although other functions have a very low percentage, they are noteworthy examples as different type of buildings that accommodate workspaces. Buildings with functions such as sport complexes, transportation buildings, public buildings, gated communities and social complexes did not accommodate workspaces in the past (See Figure 4.12).

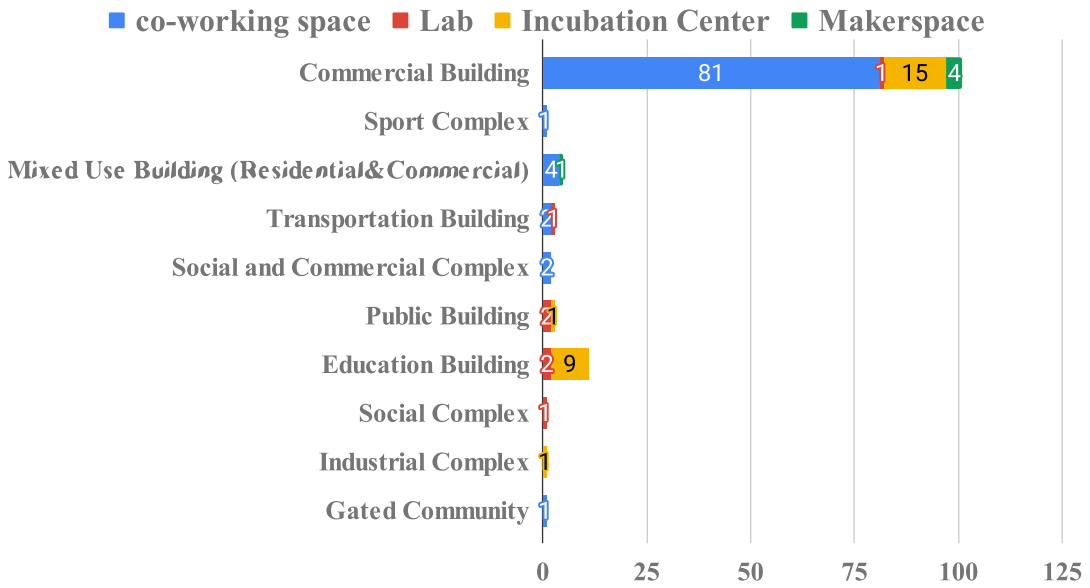


**Figure 4.12 :** Current use of the buildings occupied by creative hubs

The commercial building function includes many different types of building (See Table 4.13). Types of buildings such as renovated industrial buildings, renovated residential buildings, office towers, office buildings, shopping malls, Istanbul mansions, cultural, shopping and office complexes, historical buildings, apartment

buildings with office use have a commercial function and are being used for CHs (See Figure 4.13).

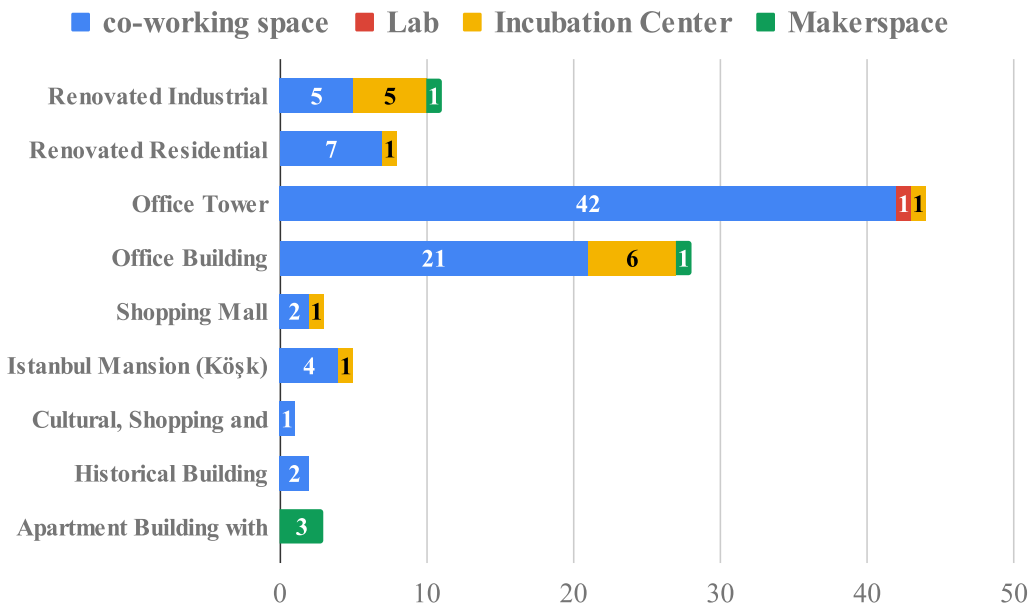


**Figure 4.13 :** Types of buildings with commercial function.

Office towers and office buildings have the biggest share among the buildings with commercial function. Office towers refer to high-rise buildings with A+ offices (See Figure 4.14). This type of buildings may also house residences and shopping malls. Office buildings refer to the office buildings that have fewer storey compared to office towers (See Figure 4.15). Office towers and office buildings are usually seen in the CBD and office sub-centers. Apartment buildings with office use refer to those buildings that have fewer storey compared to office buildings and have a similar type of architecture to those seen in residential buildings in Turkey.

**Figure 4.14 :** Examples of office towers occupied by creative hubs (Left figure: URL-3) (Right Figure: URL-4)


**Figure 4.15 :** Example of an office building (URL-5)

Most of the CWSs (75% of all CWS locations) select buildings such as office towers and office buildings located in the CBD. This is why the majority of the CHs are located in commercial buildings. This type of buildings is also attractive for incubation centers. 29% of all incubation center locations occupy office buildings. Apartment buildings with office use are very similar to office towers. These buildings, also referred to as "office blocks", are commonly used for commercial purposes in city centers throughout Turkey. There are 3 makerspaces located in this type of buildings.

CHs located within buildings with commercial building function also use buildings formerly used as residential buildings. This type of building includes residential buildings which have been renovated and thus have gained a commercial function. They consist of Istanbul mansions and renovated residential buildings are usually preferred by CWSs. Similarly, there are old industrial buildings which have been renovated and thus have gained a commercial function. These buildings accommodate CWSs, ICs and makerspaces. The reason why a high ratio of incubation centers are located in renovated industrial buildings is that some incubation centers select to use CWSs that are positioned within this type of buildings. There are 4 ICs located within CWSs. ICs sometimes are located in CWSs in order to make use of certain benefits of CWS, such as interactions commonly seen in CWS environments, being positioned in an area with easy access to public transport and being close to investors. Decisions that affect location selection of ICs are discussed in more detail in the following sections.

Historical buildings are also preferred by CWSs as they offer a unique atmosphere. There are two samples located in this type of buildings. One of them is located in an old Ottoman Turkish bath. The other one is a CWS which is located in an historical passage built in early 20th century. This sample benefits from being located in a prestigious historical building as well as being positioned in the city center with easy access to public transport.

Education buildings are the second most buildings selected by the CHs (See Figure 4.23). These samples are CHs which are located in complexes such as university campuses. There are 9 ICs and 2 labs located in university campuses. These areas are not preferred by CWSs. Additionally, there are 2 ICs located in a technopark campus and a factory complex, which are essentially similar to university campuses. This technopark campus is a public building. The other IC, which is located in a factory complex, has been categorized under the industrial complex. The basic reason why these samples, largely consisting of ICs and labs, are located in campuses is that they were established by universities or factories. Furthermore, these ICs and labs contribute to the respective universities and factories on tasks that these institutions work on.

Public buildings are not commonly preferred by CHs. Apart from 2 labs located in a municipality building and one IC that is established within the Ministry of Industry,

other CHs do not prefer public buildings. The percentage of CHs located in public buildings is very low since university buildings are categorized under education buildings instead of public buildings.

CHs are located in sport complexes such as football stadiums, transportation buildings such as airports and commercial buildings such as shopping malls in order to offer their users different location options. These types of locations are more preferred by those CWSs that have users with more flexible work conditions. However, there is also a sample lab which is located in a transportation building (metro station). A CWS located within a gated community is another striking sample. Based on these samples, the most remarkable finding related to the functions of the buildings occupied by CHs is that buildings which did not house any workspace until 10 years ago are now accommodating workspaces. Buildings such as football stadiums, shopping malls, airports, gated communities, metro stations and sport&life centers are currently accommodating CHs. Especially, CHs located in transportation buildings such as metro stations and airports indicate a significant trend regarding the evolution of the workspaces in the city.

### 4.3.4 Location selection criteria

Founders/managers of the CHs were asked questions about how they made their location selection decisions in order to find out the factors that had an effect on location selection of the CHs in Istanbul. Each CH manager listed, in no particular order of importance, more than criteria that had an effect in their location selection decision. The data obtained this way has been used to determine the common factors that are considered when selecting location for CHs. Location selection decisions of those CHs that have branches have not been scrutinized on a per branch basis. The study sample covers 60 creative hubs with 129 locations in total, including their branches. Data from 44 CHs which provided data input to the study by answering the questions about location selection in the survey has been used.

Certain factors play a key role in location selection for creative hubs. Proximity is the leading factor among them. 40% of CHs associated their location selection decisions with proximity (See Figure 4.16). Under the category of proximity, proximity to the CBD and public transport was the most important factor for CHs. Secondly, proximity to certain groups and organizations, such as investors, mentors, potential

customers/users, suppliers, consumers and universities, was another important criterion for CHs.

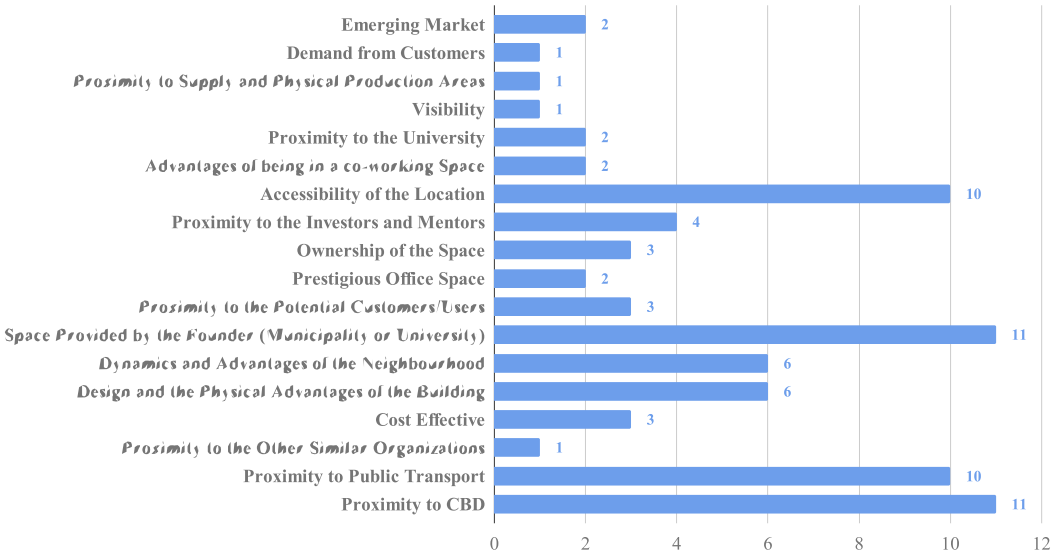


**Figure 4.16 :** Location selection criteria of CHs

Physical space was another important criterion considered by CHs when making location selection decisions. Key factors under the category of physical space included design of the building, advantages of the neighborhood, ownership and costs. Albeit less important, other factors included visibility, demand and market requirements.

Factors that have an effect on location selection decisions vary among CWSs, ICs, makerspaces and labs. Breakdown of factors associated with location selection decisions is provided in Figure 4.17.

The 2 most important factors considered by the CWS when making location selection decisions are proximity to the CBD and proximity to public transport. 34% of the CWS consider these two factors when making their location selection decisions. Therefore, majority of the CWSs are clustered in the CBD which is located along the Büyükdere-Maslak line, i.e. the north axis of the city. This axis has, at the same, a sophisticated public transport infrastructure with subways, buses and metrobuses. Proximity to the CBD and proximity to public transport did not have a big effect on location selection decisions of the labs and makerspaces. In contrast, they had an effect on location selection decisions of 23% of ICs. However, for the ICs, the most important factor associated with the location selection decisions were whether a building was allocated to the ICs by their respective founder or not. 46% of the ICs in Istanbul were founded by private institutions. Of the remaining 54% of ICs, 42% of them were founded by

universities, 4% of them were founded by a public institution, 4% of them were founded by ’a municipality, and 4% of them were founded under a university-public partnership. Therefore, for 31% of the ICs, allocation of an IC space by the respective university or municipality was an important factor in location selection. Similarly, two labs established within a municipality were located in buildings allocated by the respective municipality. Whereas allocation of a building was not an important factor for the CWSs. All but one of the CWSs in Istanbul were founded by private owners. Only of the CWSs was founded by a municipality, and allocation of building was an important factor in terms of location selection for that CWS. Ownership was, from many aspects, an important factor for the location selection of the CWSs, in particular. 3 CWS founders preferred to use their buildings which they owned as a CWS. CWSs also associated ownership with cost-effectiveness. As being the owner of a building means reduced costs, selecting an owned building when making a location selection was an important factor that affected the location selections of the CWSs (CH5).

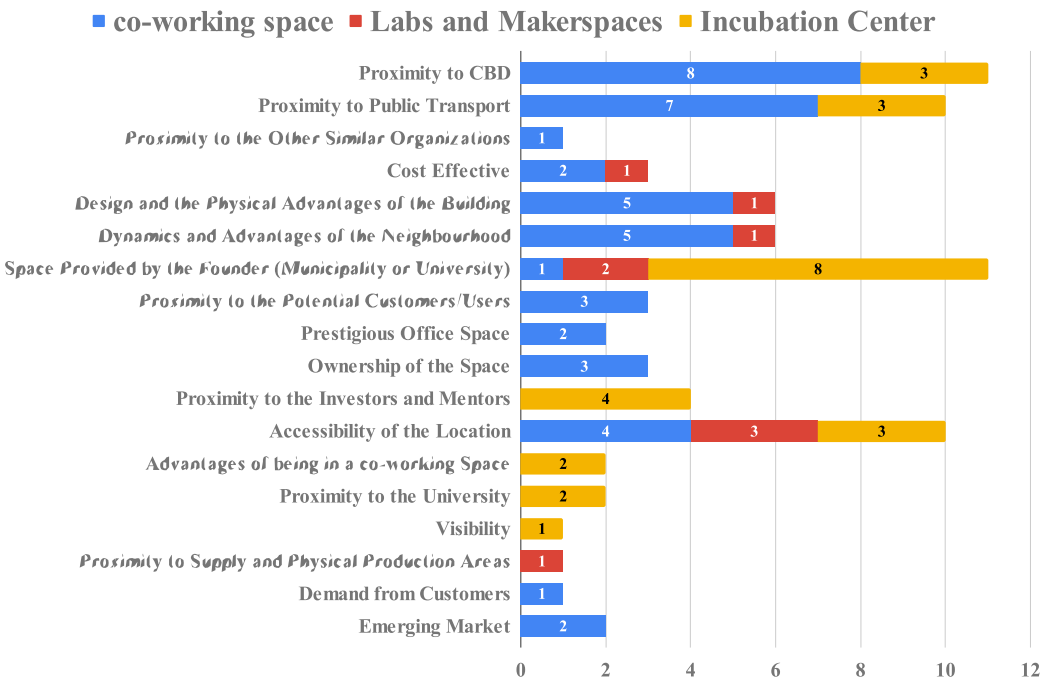


**Figure 4.17 :** Location selection criteria by CWS, ICs, makerspaces and labs.

Advantages of the building and neighborhood were equally important factors in the location selection of the CWSs. Dynamics and advantages of the neighborhood affected location selection decisions of 11% of the CWSs. However, different neighborhoods have different meanings for the CWSs. For a CWS (CH20) located in a historical neighborhood, the historical texture and users of the neighborhood were

important factors. Whereas, for a CWS (CH21) located in an old village along the Bosphorus, neighborhood relations and calm environment of the area were important factors. Another CWS (CH23) has specified that neighborhood factors were effective in their location selection decisions as they wanted to benefit from the dynamism of the user group in an area filled with plazas. This was also an important factor that affected the location selection decision of a makerspace (CH87). The lab selected its current location as it was a neighborhood in which mostly middle-income people lived.

Advantages of the building are another factor that is as effective as physical neighborhood in the location selection decisions of creative hubs. Just like the advantages of physical neighborhood, the advantages of the building are an important factor considered by the CWSs. However, the advantages of the building may vary. For example, a CWS (CH17) located in an old industrial building thought that the open-air wide space of the building could support production, and thus this characteristic of the building was a key factor in their location selection decision. Similarly, a lab (CH85) located in an old industrial building selected this building as they wanted to benefit from the advantages of the open-air design. Another CWS (CH5) located in an old industrial building chose this building because it had high ceilings and a bright and well-ventilated environment. Another CWS that wanted to benefit from the physical advantages of the building chose an office tower as it had A+ building quality and offered health and safety facilities.

Advantages of the physical neighborhood and building also affect the costs. A CWS and a makerspace located in two different neighborhoods with mixed use chose their location based on relatively cheaper rents.

Prestige of a building was another important criterion considered when making location selection decisions. Prestige of the building itself and of the neighborhood were an important factor for especially those CHs which are located in office towers.

Accessibility of the location also affect the location selection of CHs. Compared to proximity to public transport, this factor refers to accessibility in a broader sense. Easy drive to the neighborhood, proximity to main access roads and being located in the city center increase accessibility of a building. For those CHs that want to reach more people, accessibility of the building is an important factor (See Figure 4.17).

Factors that have an effect on location selection decisions of the ICs differ from the factors that are applicable to the CWSs, makerspaces and labs. For example, only the ICs considered proximity to investors and mentors as an important criterion for

location selection. Similarly, proximity to universities was also a factor for the ICs. A surprising finding was that some of the ICs preferred to be located within CWSs. Although there are 4 ICS located within CWSs, only two of them specified that this was a factor that they considered when selecting a location. The ICs selected to be located within CWSs as they wanted to benefit from the possibilities of networking and engaging in exchange of ideas made possible by co-working. Increased visibility of the ICs was also an effective factor as they wanted to reach more entrepreneurs and investors. Therefore, one of the ICs specified that visibility was an important factor in location selection for them.

The number of the CWSs in Istanbul increased in particular during the last 5 years. Based on this increase, one can conclude that they have an emerging market. Only a small number of the founders of the CWSs (%2.5) thought that the neighborhood needed a CWS when making location selection and considered it as an important factor in their location selection decision. New location requests from current or potential members were also another similar factor. A CWS (CH33) with many locations around Istanbul specified that the requests of their customers played an important role in the location selection for their new branches.

### 4.3.5 Spatial distribution of creative hubs

This analysis of the geographic distribution of the CHs in Istanbul is based on geographic location data covering 129 locations. The table below lists the distribution and number of the CHs used for the analyses in this section of the study (See Table 4.11).

**Table 4.11 :** Number of creative hub locations in 'Spatial Distribution' part of the research.

| | Number of CH Locations in 'Spatial Distribution' Part of The Research |
|---|---|
| **CWSs** | 91 (including branches) |
| **ICs** | 26 |
| **Labs** | 17 |
| **Makerspace** | 5 |
| **Total** | 129 CHs |

During the research's initial stage about the geographic distribution, the areas where the CHs are located in the city were identified and their distribution within the city was examined. In the second stage, a geographic analysis by CWSs, ICs and makerspaces was conducted. In the last stage, the distribution of the CHs within the city was examined with a focus on the type of buildings.

The distribution of the CHs in Istanbul shows that the majority of them are located in the city center. The CHs are concentrated along the main arteries and access roads connecting to these arteries. Therefore, the CHs are concentrated in the areas along the D-100 (E5) and TEM highways and their access roads. There is only a small number of CHs located in the city's periphery, and they are found in the airports as well as the university and factory campuses outside the city center and in the areas surrounding the gated communities.  Most of the CHs are located in the European side. The Asian side accommodates only 30% of all CH locations (See Figure 4.18).

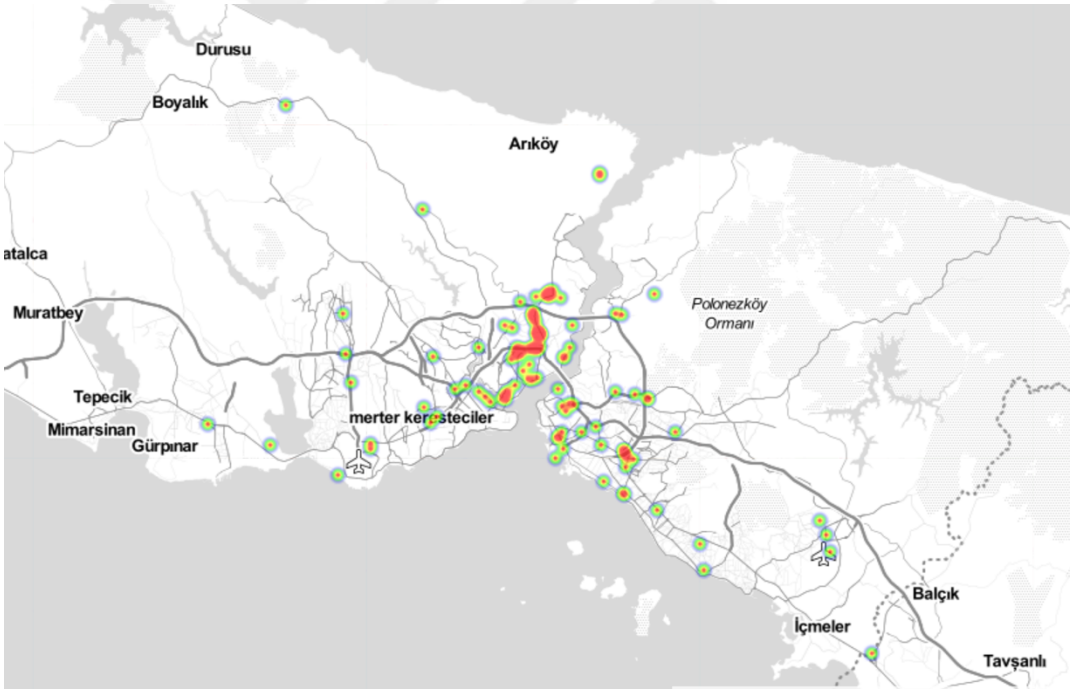


**Figure 4.18 :** Heatmap of all CH locations.

When the locations of CHs within the city are reviewed by CWSs, ICs, makerspaces and labs, it is seen that the CWSs, which are higher in number, are spread throughout the city. Nevertheless, there are certain areas with a high concentration of CWSs. The European Side houses 70% of the CWSs in the city. The highest concentration of CWSs are found in the Levent neighborhood along the Buyukdere Avenue, the Maslak neighborhood along the same north axis, and the areas surrounding the D-100 highway

in the Mecidiyekoy-Sisli neighborhoods. This area which constitutes the city's CBD is the most preferred area as it has a good public transport infrastructure, including subways and busses, and big clusters of office buildings. Based on the CWS managers' answers to the questions about how they made their location selection decisions, it is seen that the proximity to CBD and accessibility of location were the most important criteria. Similarly, the area between Taksim and Galata is another area which has a high concentration of CWSs in the European side. Many different CWS enterprises chose this area for their building. This axis also contains the part of the M2 subway line, extending from Yenikapı to Hacıosman, which has been in operation for the longest time. Furthermore, in the European side, the areas surrounding the D-100 highway are highly preferred by CWSs thanks to their good accessibility and the prestigious office buildings located there. Despite being important subcenters, Bakırköy and Beylikdüzü have a quite small number of CWSs. The CWSs located in the city's periphery in the European side are those CWSs that are located in the Göktürk campus around the gated communities and in the 3rd airport (See Figure 4.19).

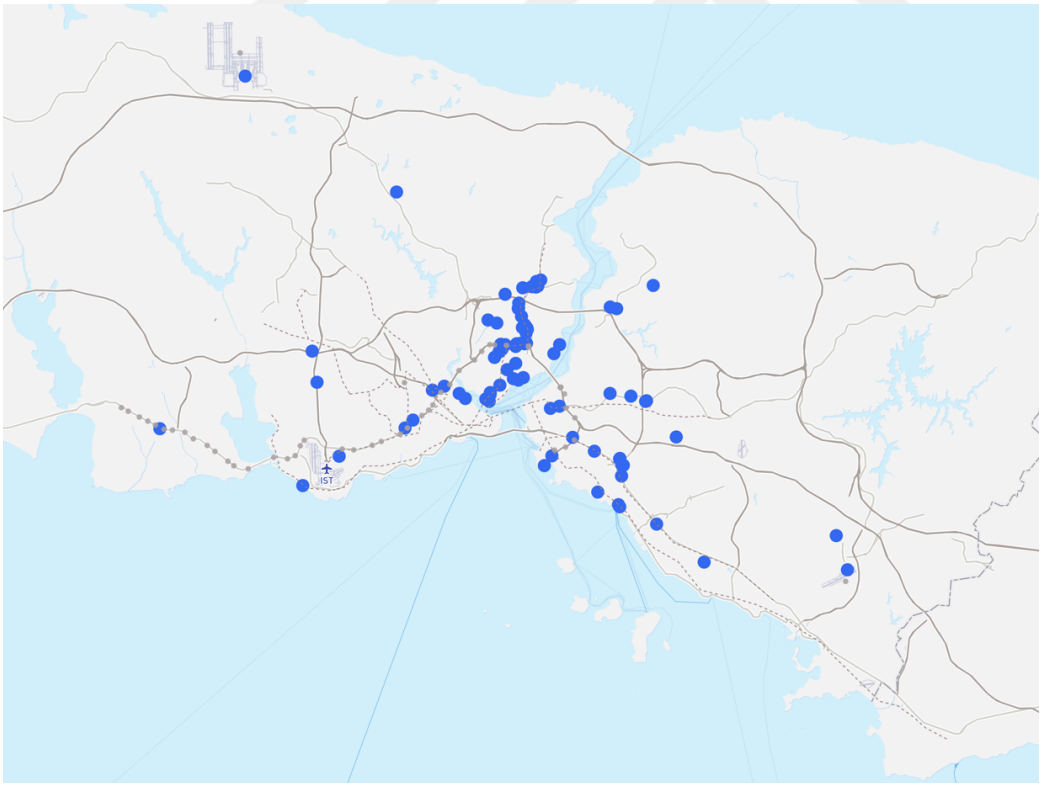

**Figure 4.19 :** Spatial distribution of CWSs in Istanbul.

The axis that starts from Beşiktas, i.e. an important subcenter, and extends to Arnavutköy along the Bosphorus coastline in the European side houses many CWSs

as well. The CWSs along the Bosphorus coastline consist of especially spaces that are shaped around a small community and occupy buildings. On the other hand, the CWSs in the area that extends from Beşiktaş port to Maçka neighborhood display a different character. The CWSs in this area are located in prestigious buildings.

The CWSs show a more homogenous distribution across the Asian side (See Figure 4.19). Similarly, the areas surrounding the D-100 and TEM highways and their access roads are the most preferred locations for the CWSs. All of the CWSs located in these areas are located in prestigious office towers and office buildings. The CWSs in the Asian side are clustered in the office towers and office buildings in Ataşehir, the district where the D-100 highway is connected to the TEM highway. Extensions of this cluster are seen throughout the D-100 highway. The part of the D-100 highway which accompanies the Kadıköy-Tavşantepe M4 subway line offers good accessibility and accordingly houses a number of CWSs. Ümraniye district, which connects the Şile highway to the TEM highway, is the area with the second highest concentration of CWSs in the Asian side. Although this area has limited access to the Üsküdar-Çekmeköy M6 subway line, it offers good highway accessibility. Altunizade, one of the subcenters of the Asian side which is located along the same subway line, is also one of the areas that CWSs prefer for their branches thanks to its accessibility options. Kavacik, another neighborhood with good highway accessibility, is also highly preferred by chain CWSs for their branches. Kavacık, the first roundabout on the TEM highway after the exit of the bridge in the Asian side, is a subcenter which developed especially after the construction of the second bridge over the Bosphorus.

The axis which starts from Kadıköy-the oldest neighborhood and the economic center of the Asian side- and runs along the Bağdat Avenue until the Kartal district is also included among the areas that the CWSs prefer. The Bağdat Avenue is the most prestigious avenue in the Asian side. All of the CWSs along this axis starting from Kadikoy are located in mixed-use buildings within the neighborhood texture.

As is the case with the European side, there are CWSs in the periphery of the city in the Asian side also located in the airport, shopping malls around the airport and in the gated communities.

Geographic distribution of ICs in Istanbul shows a similar pattern to that of CWSs. 69% of the ICs are located in the European side. The area between Mecidiyeköy and Maslak, which constitutes the CBD of the city, has the highest concentration of ICs in

the city. The area including Mecidiyeköy along the D-100 highway and the adjacent Büyükdere axis is an important area housing ICs founded by private institutions in particular. Although this axis also contains those ICs which are founded by universities, all of the ICS, except for the one located in the main campus of ITU, chose to position themselves within a CWS. In the European side, a significant portion of the ICs outside this axis are positioned within university campuses across different parts of the city.

The ICs in the Asian side show a more balanced distribution both in terms of their founders and distribution within the city (See Figure 4.20). Unlike the CWSs, ICs did not prefer buildings along the coastline of the Asian side. Atasehir is the area of choice for the ICs in the Asian side. Areas surrounding the D-100 and TEM highways and their access roads are included among preferred locations. Another trend observed in relation to the geographic distribution in the Asian side is that the ICs are located in mixed-use areas with a high concentration of residential buildings. One of the ICs located in this type of areas was founded by the municipality, while the other one was founded by a private institution. Unlike other ICs in Istanbul, only one IC is located in the periphery of the city. This IC is located within a factory campus.

**Figure 4.20 :** Spatial distribution of ICs in Istanbul.

The number of makerspaces and labs in Istanbul is not enough for identifying any general geographic trend. Therefore, makerspaces and labs are addressed together. The total number of makerspace and lab locations in the city is 12, and 4 of them are located in the Asian side (See Figure 4.21). Kadikoy is the only area where makerspaces and labs are clustered. 2 makerspaces and one lab founded in collaboration with the municipality are located in mixed-use neighbourhoods in the city center. The other lab in the Asian side is the branch of the lab founded in collaboration with the municipality. This lab is within the municipality building in Kartal.

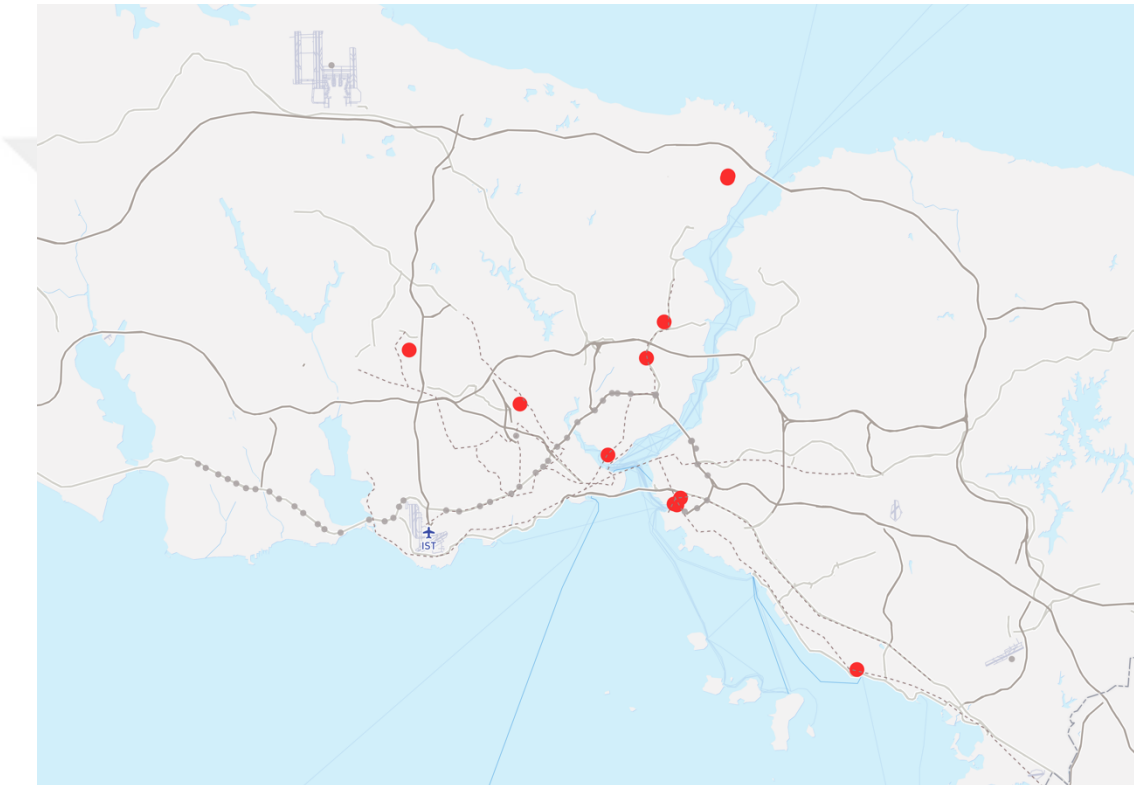

**Figure 4.21 :** Spatial distribution of makerspaces and labs in Istanbul.

The labs located in the European side are spread to different parts of the city (See Figure 4.21). 2 labs located in a university campus to the North of the city and 2 maker movements along the Büyükdere Avenue form a cluster within themselves. The two of remaining labs are located in a building allocated by the municipality as they are founded by the municipality.

### 4.3.6 Results of the location analysis of creative hubs in Istanbul

Reviews conducted to analyze the spatial structure of CHs in Istanbul were intended to find the answer to the question of 'What is the location structure of creative hubs?'

Inner city area is the most preferred area by CHs. Spatial distribution of CHs is correlated to the distribution of workplaces between the two sides of the city. The European side accommodates 68% of the workplaces and 70% of the CHs. Spatial distribution of CHs shows that CHs tend to cluster in those areas with the highest number of workplaces operating in the creative industries, rather than in the most densely populated areas. Beyoglu, Besiktas, Kadikoy and Sisli areas accommodate the most workplaces in the creative industries. Spatial distribution of CHs also shows a similar pattern of concentration. The most concentrated CH cluster is located in the axis which starts from the Sisli part of the D-100 highway and extends along the Büyükdere Avenue up to the Maslak. Areas where CHs are clustered are as follows listed in the order of concentration:

**CBD:** This area has the highest concentration of CHs in Istanbul, and includes prestigious office buildings, a high concentration of firms operating in creative industries and a strong public transport system. This area also houses many full of cultural facilities and consumption spaces such as shopping malls. There are CWSs, ICs, makerspaces and labs that are located in the CBD. It is the area that is most preferred by ICs due to its proximity to investors and networking opportunities. Similarly, due to its proximity to potential customers, easy accessibility and presence of the highest concentration of creative labor, CWSs select locations in this area.

**Cultural and Social Vibrancy Areas in the Inner City:** These areas constitute the historical culture&art center of the city, have a history of settlement that dates back to very old times, contain rich specimens of civilian architecture and house a high concentration of social interaction zones such as cafes, restaurants and bars. The area which consists of Besiktas, Beyoglu, Halic and Kadikoy shows these characteristics. This area houses a high concentration of CWSs, labs and makerspaces. It is not the area that is most preferred by ICs. An IC located in this area is located in this area as it is positioned within a university campus.

**Subcenters with a high concentration of offices:** These subcenters refer to the areas that are outside the CBD and located around the D-100 and TEM highways in both sides and their access roads. They offer high accessibility due to their proximity to main arteries. They have a developed infrastructure in terms of office utilities and parking areas. These subcenters are largely accessed through highways. Office zones in Merter, Bakirkoy, Avcilar, Basaksehir, Eyup and Kagithane in the European side and Atasehir, Kozyatagi, Umraniye, Altunizade, Pendik and Kavacik in the Asian side

are primarily preferred by ICs and CWSs. However, CWSs located in these subcenters are essentially branches of chain CWSs. The CWSs that have a single location and consist of small communities do not prefer these subcenters. Majority of the ICs located in these subcenters are positioned within university campuses.

**Coastline:** The coastline refers to the area between Kurucesme and Bebek in the European side and a part of Uskudar and the area between Moda and Kartal in the Asian side. Due to high accessibility, the coastline differs from the densely inhabited city texture. They usually consist of areas where the culture of neighborhood is still dominant. Buildings in these areas accommodate both residential and commercial functions. They are mostly preferred for CWSs.

**Periphery:** Areas that are located at the periphery of the city and connected to the city center through highways. Gated communities, airports, universities and factory campuses exist in the periphery of the city. While university campuses house sample labs and factory campuses house sample ICs, gated communities and airports house CWSs.

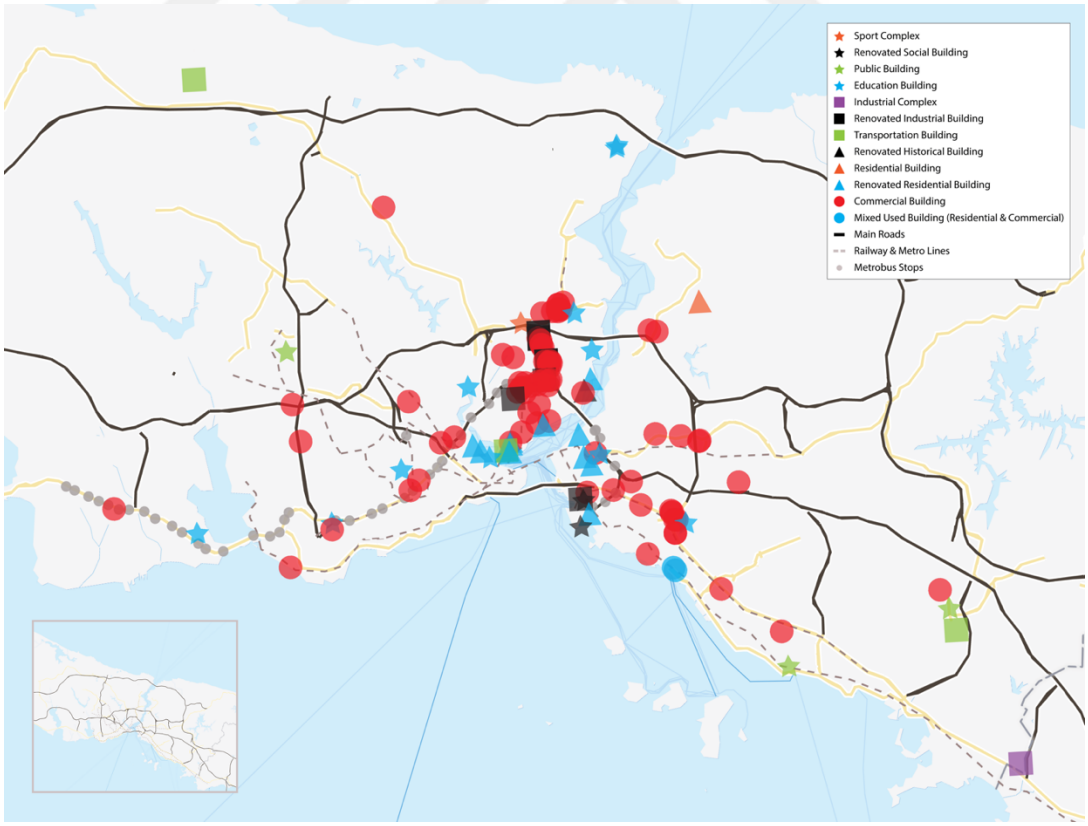


**Figure 4.22 :** Spatial distribution of CHs according to the building types.

Another factor that affects location selection of CHs is whether the CH is founded by the public or private sector. The effects of this factor are most apparently seen on ICs

and labs. Public and local government investments focus on ICs and labs. All of the ICs established within a public university are located inside the university campuses. A significant portion of (3 out of 4) sample labs were founded by local governments. This type of samples are located within areas allocated by the respective local government. The sample CHs that are founded by the private sector are mainly CWSs. Proximity is the leading location selection criterion for CWSs. For founders of CWSs, the most important factor that affects location selection is the proximity to the CBD and public transport.

Location of CHs and whether they are founded by the public or private sector determine the function of the building that they will select. The CHs that are within the CBD mainly select renovated industrial buildings and commercial buildings such as office towers. As the finance and service sectors gained more and more weight in the city's economy from the 1980s onwards, the Büyükdere axis has turned into an area characterized with next-generation office buildings. Secondly, as the industry was moved away from the city center from the 1980s onwards, old industrial buildings emerged to the West of the Büyükdere axis. These areas became targets of real-estate projects. Transformation of the industrial buildings in this area is still ongoing. Observations made during the field research and the statements of CH managers support this fact. The fact that the area has a high concentration of firms operating in the finance and service sectors triggers transformation of small industrial buildings. Founders of CWSs stated that they preferred industrial buildings in order to benefit from the large open-air space of this type of buildings. This transformation in the area also causes places such as cafes, bars, restaurants and concert halls to emerge to meet the needs of firms.

**Table 4.12 :** Main usages in different CH zones.

| | The Most Common Usages in the Zone | Current Function | Type of The Building |
|---|---|---|---|
| CDB | CWS, IC | Commercial Building | Office Towers, Renovated Industrial Building |
| Cultural and Social Vibrancy Areas in the Inner City | CWS, Labs and Makerspaces | Renovated Residential Building, Renovated Social building | Mixed use buildings, Apartment Building, Istanbul Mansion, |
| Subcenters with a high concentration of offices | CWS, IC | Commercial Building | Office Towers, Office Buildings |
| Coastline | CWS | Renovated Residential Building | Istanbul Mansion, Mixed-Use Building |
| Periphery | CWS and labs, ICs | Transportation Buildings, Industrial Complex, Education Building | University Campus, Airport, Factory complex |

The CHs located within the 'Cultural and Social Vibrancy Areas in the Inner City' are mostly positioned in renovated residential buildings and renovated social buildings. CWSs, makerspaces and labs prefer these types of buildings. The user group of the CWSs within this area differs from the users of those CWSs located within the CBD. During the surveys, CWS managers stated that they, despite having branches in prestigious office buildings, preferred renovated residential buildings within the inner city in order to appeal to the target users which mainly consisted of expats, tourists, freelancers, designers and artists. Social vibrancy due to mixed use, atmosphere and high accessibility of these areas make this type of buildings an ideal choice. Makerspaces and labs also selected this location for the same reasons. A lab founded by a local government was opened in an old movie theater which was transformed for use as a lab. Two makerspaces in the same area also selected this area due to its central location, potential user profile and proximity to suppliers.

Subcenters with a high concentration of offices have similar properties with those of the CHs located in the CBD. These subcenters which are located around important junctions of the city consist of office towers and office buildings that shape the new lifestyle of the city and contain residences or shopping malls inside or are located in the vicinity of a shopping mall. These subcenters are preferred by private universities

due to high accessibility.  A small number of ICs located within university campuses also select buildings in these subcenters.

The coastline is mostly preferred CWSs. These areas which have a high concentration of residential buildings usually consist of small zones that represent the traditional neighborhood texture of Istanbul. The CWSs located in these areas mostly occupy those buildings that used have a residential function in the past. These samples which consist of small CWS communities are in an advantageous position in terms of access to green outdoor areas and other physical benefits of the coastline.

CHs located in the periphery represent the workspaces that the city gained during the last 10 years. The CHs located within the airports, factory campuses and university campuses add a new functions to their buildings. The buildings that they occupy maintain their existing functions.

Since the CHs in Istanbul tend to select locations within the CBD, commercial buildings such as office towers and office buildings reflect the general characteristics of the buildings occupied by CHs. In terms of location selection and building characteristics, they are similar to the buildings which are used by the finance and service sectors in the city. Those buildings located in the periphery of the city and were not used as a workspace before represent the buildings that differ from other buildings occupied by the CHs. Similarly, as university campuses house creative workspaces such as labs and ICs, they gained the workspace function in addition to their existing education function. The key characteristic of the CHs in Istanbul that differentiate themselves from their counterparts around the world is that they are located in mixed-use buildings such as Istanbul mansions which reflect the unique architecture of the city.

## 4.4 Typology of CHs in Istanbul

### 4.4.1 Aim and content of the section

This analysis section aims to understand the main characteristics of CHs in order to describe their typologies. For this purpose, distinguishing properties of CWSs, ICs, makerspaces and labs have been examined. Based on the checks performed, it was detected that ICs, makerspaces and labs did not provide a sufficient sample size to identify their typological properties. Therefore, after the general properties of ICs,

makerspaces and labs were discussed the typology analysis was conducted over the CWSs. In this sense, founders/managers were asked to provide information about the structure of their CWS. In this study, CWSs are considered more than physical spaces. For this reason, CWSs have been examined with their different characteristics in a comprehensive way. In this context, 20 CWSs in Istanbul have been included in the research which are agreed to participate in the research. Considering the branches of those CWSs in different locations, 87 locations have been included to the research in total. It should also be reported that the number of branches indicates the results for the period when this research is conducted. Additions or closures of branches are not included to the results. The CWSs examined in this research have been listed below (Table 4.13):

**Table 4.13 :** List of the CWSs in the research with their establishment years.

| **Name of the CWS** | **Total Number of Locations in Istanbul** | **Establishment Year** |
|---|---|---|
| CWSS1 | 1 | 2016 |
| CWSS2 | 3 | 2015 |
| CWSS3 | 1 | 2016 |
| CWSS4 | 11 | 2012 |
| CWSS5 | 1 | 2015 |
| CWSS6 | 1 | 2017 |
| CWSS7 | 1 | 2015 |
| CWSS8 | 1 | 2016 |
| CWSS9 | 2 | 2015 |
| CWSS10 | 8 | 2006 |
| CWSS11 | 2 | 2015 |
| CWSS12 | 18 | 1999 |
| CWSS13 | 6 | 2010 |
| CWSS14 | 1 | 2017 |
| CWSS15 | 24 | 2010 |
| CWSS16 | 1 | 2018 |
| CWSS17 | 1 | 2018 |
| CWSS18 | 1 | 2016 |
| CWSS19 | 1 | 2018 |
| CWSS20 | 2 | 2018 |
| | **87 Locations** | |

### 4.4.2 General typology of creative hubs in Istanbul

Each category of CWSs, ICs, makerspaces and labs, which are classified as CHs, also has certain differences within themselves. Physical and non-physical factors play a role in the typologies resulting from these differences. However, each category of CH does not demonstrate an equal degree of difference.

ICs offer physical space and a series of services that are limited to a definite time period in order to help start-ups survive and grow during the formation and early initial part of the business development process. The basic services provided for this purpose consist of shared office space, networking events, mentorship, training programs on different fields and establishment of relations with investors. The services and facilities provided are identical in any IC, regardless of whether they are founded by the public or private sector. 72% of the ICs examined in this study are private initiatives. The ICs founded within private universities are also included among the private initiative ICs. The type of investor of ICs, i.e. whether they are from the public or private sector, cause difference only in the location selection decisions of ICs. 35% of the ICs in Istanbul examined as part of the study are located within a university campus. Apart from this fact, physical services and facilities such as shared office space provided to entrepreneurs do not differ to an extent that they would constitute a typological difference based on whether a given IC is founded by a university or the private sector. In addition to the non-physical services, ICs also do not differ from each other in terms of training, networking and mentorship services. These non-physical services differ only in terms of their content, based on for which of the pre-incubation, incubation, acceleration and post-incubation processes the IC provides services.

Another area in which ICs differ is their specialization. 24% of the ICs in Istanbul provide assistance to start-ups in certain areas such as social entrepreneurship, software, health, football technologies, and defense technologies. The fact that ICs provide services in a specific area does not result in differences in the process of services that they offer. Regardless of the sector or area of activity that an IC focuses on, ICs go through similar processes in terms of sector-specific training, mentorship support, shared office space and networking opportunities. Due to all of the above-mentioned reasons, ICs do not differentiate to a degree that they would display a different typological property.

4 makerspaces and 3 labs were surveyed as part of the thesis study. Makerspaces offer shared workspace and workshop environment as physical environment. Shared workspaces are equipped with various tools such as 3D printers and laser cutters. Although makerspaces are not based on a membership system, most of them have a workflow that progresses over training programs. The training programs are tailored to different age groups or interests. Training programs on different subjects, such as basic electronics, robotics and coding, STEM+A, algorithm and coding, and 3D printing, are some of the training programs offered in the makerspaces in Istanbul. The most important characteristic of makerspaces that separate them from other types of creative hubs is that they have special programs for children. A makerspace in Istanbul develop program content that is specially designed for children only. No typology study could be developed for the makerspaces in Istanbul as they provide services in a very specific area and there are few makerspaces.

Lab samples included in the study consist of city labs, living labs and design-based urban labs. There are also sample labs in Istanbul which have not been included in the study, such as design labs, virtual and augmented reality labs, innovation and creative centers. The labs in Istanbul also have many identical properties with those of makerspaces, CWSs and ICs. Just like makerspaces, when required, the labs also provide workspace area when a start-up is working in an area such as hardware development. They provide support as an incubation center to enable start-ups to realize their projects. The workspace provided by the labs is based on the principle of co-working, as is the case with CWSs. Despite all these properties, the number of labs in Istanbul is too small to carry out a typology study. Therefore, the labs have been discussed focusing on their general properties, and no typology study has been conducted for them.

### 4.4.3 Typology of co-working spaces in Istanbul

The CWSs in Istanbul constitute a sufficient sample size, both in terms of the number of locations and the services that they provide, to carry out a typology study. Empirical findings of the section are organized around two main topics and their sub-topics to understand the typology of CWSs in Istanbul. The first group of findings is about the physical structure of the CWSSs and the second group is about the non-physical structure of those spaces.

#### 4.4.3.1 Physical structure of CWSs

Questions on this part of the survey are focused on three different aspects of physical structure. The first group of physical structure questions was designed to determine the type of the building that the CWSs are nested. If any branch is available, each of them was evaluated separately for their physical property.

The second group of physical structure questions were designed to ascertain the physical characteristic of the CWS. This group of questions were supported by the observations and photographs on site during the survey.

The last group of physical structure questions were designed to elicit the physical services that CWSs provide. It's the physical facilities that members can use through their membership.

**Type of the Building**

The first group of questions indicates that CWSs locate in office towers (high rise office blocks) and office buildings (midrise office blocks), old industrial buildings and ateliers, football stadiums, airports, shopping mall complex, and apartment buildings in historical neighborhoods or central areas. Despite the research sample consists of 20 CWSs as enterprises, the number of their locations include 87 locations in Istanbul. CWSs with many branches usually occupy office towers (high rise office blocks). In this context, 61 CWSs (70%) were located in office towers and office buildings (midrise office blocks) in the most accessible and prestigious locations of Istanbul's central areas. These results differ for CWSs without any branch. Half of the CWSs without any branch are located in old industrial buildings, former ateliers or building complexes renovated for a new function. Table 4.14 shows an overview of where CWSs, and their branches are located.

**Table 4.14 :** Location of CWSs in Istanbul.

| No | Total Number of Locations In Istanbul | Located Inside |
|---|---|---|
| CWSS1 | 1 | Old Printing House |
| CWSS2 | 3 | - Old Textile Atelier (x1)<br>- Historical Residential Apartment Building (x1)<br>-Office Tower (x1) |
| CWSS3 | 1 | Old Textile warehouse |
| CWSS4 | 11 | - Office Tower (x6)<br>- Office Building (x2)<br>- Football Stadium (x1)<br>- Airport (x1)<br>- Historical Residential Apartment Building (x1) |
| CWSS5 | 1 | Old Beer Factory |
| CWSS6 | 1 | Old Restaurant Complex |
| CWSS7 | 1 | Office Tower |
| CWSS8 | 1 | Apartment Building in Historic Neighborhood |
| CWSS9 | 2 | - Old Istanbul Mansion (x1)<br>- Shopping mall Complex (x1) |
| CWSS10 | 8 | - Office Tower (x7)<br>- Old Istanbul Mansion (x1) |
| CWSS11 | 2 | - Office Building (x2) |
| CWSS12 | 18 | -Office Tower (x14)<br>-Office Building (x2)<br>-Cultural, Shopping and Office Complex (x1)<br>-Airport (x1) |
| CWSS13 | 6 | -Apartment Building (x2)<br>-Office Building (x2)<br>- Historical Residential Apartment Building (x1)<br>- Old Istanbul Mansion (x1) |
| CWSS14 | 1 | Office Building |
| CWSS15 | 24 | - Office Tower (x17)<br>- Office Building (x5)<br>- Old Istanbul Mansion (x1)<br>- Shopping Mall (x1) |
| CWSS16 | 1 | Old Ottoman Bath |
| CWSS17 | 1 | Office Building |
| CWSS18 | 1 | Historical Residential Apartment Building |
| CWSS19 | 1 | Old Textile and Carpentry Atelier |
| CWSS20 | 2 | - Old Istanbul Mansion<br>- Sport and Life Center in a Gated Community |
| | **Total: 87 Locations** | |

Besides industrial buildings and ateliers, buildings which reflect characteristic Istanbul architecture is another choice for location. While some CWSs locate most of their branches in office towers and buildings, they still tend to locate some of their branches in historical buildings or historical neighborhoods. Even though the number of CWSs located in those types of buildings is minority, they should be evaluated for their impact. Because CWSs with multiple locations choose to locate at least one of their branches in a historical building indicates the importance of those locations as an option. In this sense, 78% of CWSs with multiple branches locate at least one of their branches in an historical building or an old Istanbul mansion in a central area. Besides that, CWSs tend to choose those location for their targeted members. As one interviewee stated co-founders may tailor their events, services, and the design of the space considering the location and the profile of the members in this location. The most striking results from the surveys are that CWSs increasingly locate their branches in airports and shopping mall complexes for more mobile people.

Overall, physical structure results based on the building type indicate that CWSs are located in various types of buildings. The top selection is the office towers and office buildings on the financial districts, and renovated industrial buildings. Historical buildings in historic neighborhoods are another considerable choice to locate in. Moreover, location choices such as airports, shopping malls or cultural complexes are a new type of office location choice that does not exist a decade ago.

**Physical Characteristics**

The second group of physical structure questions was concerned with the physical characteristics of CWSs. Results indicate that physical characteristics of CWSs are directly associates with different membership options available in those spaces. Because the design of the space forms over the membership options. Most CWSs offer different types of memberships such as flexible desk, fixed desk, served office and meeting room. Table 4.15 presents the membership options that are available within research participants.

**Table 4.15 :** Membership options in CWSs.

| | | Co-working | | | Served Office | Virtual Office | Event Space/ Meeting Room / Workshop Space etc. | Other |
|---|---|---|---|---|---|---|---|---|
| | Opening& Closing Times | Daily/ Hourly Use | Fixed Desk | Flexible Desk | | | | |
| CWSS1 | 7/24 | | • | • | • | • | • | Community Membership |
| CWSS2 | 7/24 | | • | • | • | • | • | |
| CWSS3 | 7/24 | | • | • | • | | • | |
| CWSS4 | 08:00-20:00 | • | • | • | • | • | • | Café, Incubation Center |
| CWSS5 | 7/24 | | • | • | | | • | Makerspace / Prototyping Lab |
| CWSS6 | 08:00-00:00 | • | | • | | | • | Nursery (only for members), Bistro, Community Kitchen (work in progress) |
| CWSS7 | 08:00-20:00 | • | • | • | • | • | • | |
| CWSS8 | 9:00 AM-21:00 | • | | | | | • | Café, Design Shop, Library |
| CWSS9 | 7/24 | • | • | | • | | • | Exhibition Area, Music Room |
| CWSS10 | 7/24 | | • | • | • | • | • | Disaster Recovery |
| CWSS11 | 8:30 AM-19:00 | | • | • | • | • | | |
| CWSS12 | 7/24 | | • | • | • | • | • | Disaster Recovery |
| CWSS13 | 7/24 | | | • | • | • | • | |
| CWSS14 | 9:00 AM-20:00 wkn11:00-19:00 | • | • | • | | | • | |
| CWSS15 | 7/24 | | • | • | • | • | • | |
| CWSS16 | 9:00 AM-18:00 | | | • | • | | • | Art Gallery |
| CWSS17 | 7/24 | • | • | • | • | • | • | |
| CWSS18 | 7/24 | | • | • | • | • | • | Music/Theatre stage |
| CWSS19 | 7/24 | | | | • | | • | Architecture Library |
| CWSS20 | 7/24 | | • | • | • | • | • | Lounge membership for using all locations |

Membership options determine the usage of the space. All participants reported that they provide open communal space or lounge areas to work together for their members. This finding confirms that co-working activity mainly occurs in big open areas in a shared environment. Membership options in these areas are mainly hourly/daily use of the space, flexible desk or fixed desk options. Additional to open office space, most participants (80%) indicated that they also provide served office option for their members. Membership option for closed office areas is mainly served office option in a reserved area. When asked whether the average team size for the companies that use served office option, only 88% of the respondents answered that question. Companies use served office option are mainly micro SMEs. They reported that the average team size for the majority of the served office members are 3-4 people (50%) and 2-3 people (21%) For the rest of the served office members, the average team size is 1-2 people and 4-5 people. More than 5 people in a served office area is rare in CWSs.

Makerspaces can be part of CWSs as they can be separate units. Considering that single unit makerspaces are excluded from the research sample, makerspaces nested in CWSs constitute only a small part of those working environments. Only one CWS hosts a makerspace in their area. This result may be explained by the fact that makerspaces are typically separate places designated for this purpose instead of being nested in a CWS.

Meeting rooms are another important function provided in CWSs. While they are mainly isolated spaces that can be used for members' meetings, they can also be rented for non-members of the community as a service. Most interviewees indicated that their meeting rooms are generally multipurpose rooms that can be used for workshops, events, seminars, etc. Accordingly, event spaces can be used for meetings and seminars. Vast majority of CWSs (95%) are reported that they have an available meeting room or event area that can be rented for other people or organizations besides its members. The profile of users of those rentable spaces are discussed at community structure section.

Virtual office membership option is also emerged in the last years. CWSs offer this option for providing a business address with options such as mail handling and telephone answering. Although, it looks like virtual office has no physical asset on CWSs, this type of membership includes limited time of meeting room or lounge

usage. Majority of CWSs (60%) provide virtual office as a membership option. The most surprising aspect of the data is in the reason for choosing this type of membership. Some interviewees added as a comment that virtual office option has a prestigious impact for its members. Member of the virtual office use the address of the CWS for their business cards. These places are located in central areas and the most prestigious office buildings in the city that generally a freelancer or a start-up cannot afford to rent a whole office flat. Virtual office membership option lets members use this address for their business cards, which is advantageous for their business image.

Besides a fixed desk, flexible desk, served office and meeting room options, additional physical services are offered in CWSs. The most common additional services are café-bistro and disaster recovery programme which ensure business continuity in a disaster situation for companies by gaining access to a fully equipped private office. Other additional services are rare such as exhibition area, music room and design shop. The most striking result to emerge from the data is that one CWS has a day-care nursery for their members to provide a day-care for their children while member is working. A local municipality establishes this example of CWS. Another surprising result from the data is that one specific CWS developed an incubation program and nested the incubation programme in one branch.

Design is a key element for CWSs. As supported by the observations during the site visits, it is confirmed that CWSs differentiate from traditional office layouts. When asked if their CWS provide a place for nourishing new ideas and support creative processes, %88 of the respondents who provided an answer to that question reported a positive answer. The majority (%67) commented that they provide the required environment by designing the space for it and creating an atmosphere for gathering and sharing ideas. Talking about this issue an interviewee said 'Our design concept stimulates members to develop projects together. We tried to create interactive spaces on our design.' During the observations, it's also reported that designed furniture, technologic equipment's, designed objects, relaxing environment, well-designed lounge areas and big desks are striking feature of CWSs. It's also observed that work and leisure coincide depending on the design. Big open spaces, open kitchen and lounge areas within the working environment cause the co-existence of different activities, such as working, relaxing, meeting, chatting and enjoying. Another

significant design concept was the usage of high-ceilinged spaces, mezzanines and open stairs specially in renovated industrial buildings.

**Physical services**

The second group of physical structure questions was used to conceive the physical services provided in those spaces. For physical services results, social facilities are excluded and it is only focused on physical facilities. Social services are discussed in non-physical structure findings.

On average, each CWS provide some basic physical services such as high speed internet, printer, basic office furniture, coffee - tea during the day, snacks , meeting room access, locker, kitchenette, daily cleaning of rooms, desks and common areas, and security.

CWSs provide other optional physical services such as fixed phone, mail handling, call answering, monthly magazine, additional to basic services. It's observed that the basic physical services are mainly the same in every type of CWSs.

#### 4.4.3.2 Non- physical structure of CWSs

**Financial structure of CWSs**

CWSs are mostly established by private initiatives. There is a significant difference between the number of profit and non-profit CWSs. Almost all of those establishments (95%) are for profit organizations. The role of central government and local municipalities on the establishment of CWSs is low. The number of CWSs which founded by local municipalities is only 1 in Istanbul.

The main financial resources of profit based CWSs are the memberships, and renting meeting rooms and event spaces. In minority of CWSs (15%), there is a core team responsible for developing projects and education programmes for their specification. Besides rental income, the core team members' education programmes and projects can be considered the secondary income resource.

**Community structure of CWSs**

***Number of members***

The number of CWS members has a variety from small communities to large networks. Table 4.16 shows an overview of the average number of members in those spaces.

**Table 4.16 :** Number of members in CWSs.

| CWS | Total Number of Locations | Average Number of Members |
|---|---|---|
| CW1 | 1 | 100-149 |
| CW2 | 3 | >500 |
| CW3 | 1 | 50-99 |
| CW4 | 11 | >500 |
| CW5 | 1 | 100-149 |
| CW6 | 1 | 1-49 |
| CW7 | 1 | 1-49 |
| CW8 | 1 | No Membership |
| CW9 | 2 | 1-49 |
| CW10 | 8 | >500 |
| CW11 | 2 | 50-100 |
| CW12 | 18 | >500 |
| CW13 | 6 | >500 |
| CW14 | 1 | 1-49 |
| CW15 | 24 | >500 |
| CW16 | 1 | 1-49 |
| CW17 | 1 | 1-49 |
| CW18 | 1 | 100-149 |
| CW19 | 1 | 50-99 |
| CW20 | 2 | 200-249 |

As can be seen from the table (above), expectedly there is a strong connection between the number of branches and the number of members. CWSs with many branches mostly tend to have more than 500 members in total. The number of members are more than 1000 for CWSs more than 10 branches. CWSs which consists from a single unit have small communities with less than 50 members. As interviewees stated, served office members are counted as a single member, although team size of served office members are mostly 3-4 people. A note of caution is due here since an average number

of members for each branch cannot be obtained by dividing the total number of members to the number of branches to compare the result with single unit CWSs. Because each branch has a different size and consists different number of members.

***Age group***

People who choose to work from CWSs are mostly at their late twenties and early thirties. They also known as Generation Y. It's observed that interviewees do not tend to collect data for age groups in their CWS. Thus, only half of the participants responded to this question and other participants only expressed their observations.
The results obtained from the surveys indicates that age group between 16-20 years old is not choose to work in those areas. The majority of members are between 26-30 years old (30%) and 31-35 years old (25%). Member between the age of 36-40 (22%) and 41-45 (7%) are more than the age group 21-25 (14%). Additionally, the participants who express their observations indicated that their members light minded people younger than 40-45. Similarly, another interviewee reported that the age of their members changes between 26-40, but the majority of them are aggregated between the age of 31-35. Members older than 45 years old are the minority (7%) among all age groups. Although some CWSs stated they do not keep statistical data on age groups, they still shared their observations. One participant reported that most of their members are at the age of 30-55. The interviewee's explanation on this situation is that most of their members have their own companies or rent an additional space for their employees. People on this profile are generally not at the beginning of their career**.**

***Gender***

CWSs do not tend to keep statistical data about the gender of their members. Almost two-thirds of the participants (75%) reported approximate data for gender. According to the result gathered from surveys, male are more involved (57%) in CWSs than female.

***Members profile***

Building a community around CWS is a desirable issue for CWSs. During the surveys, most CWS managers commented that they intentionally organize events and design the space for possible interactions for community building and more sociable place. Besides one CWS, all of them offers only membership-based options which requires

at least 1-month membership. Besides its financial benefit, a possible explanation for this is that it is aimed to build a community with steady members. Membership options in CWSs has an impact on determining the profile of members. CWSs with only hourly/daily desk option, hot desk option or meeting room option have a different profile than CWSs with served office option or minimum a month membership-based option. One participant with only daily/hourly use option stated that their visitors are mostly software developers, designers and start-ups entrepreneurs without any office place yet but need a place to work. It's also stated that foreign visitors consist half of the visitor.

CWSs with membership based are multi-disciplinary places. While CWS members are mostly freelancers, entrepreneurs and creative individuals, as one interviewee reported served office member are mostly micro SMEs and creative departments of corporate firms. Whether in CWS or served office, people who choose to work from CWSs are mostly in creative sectors. Data gathered from surveys is used to specify the densest 10 sectors in CWSs. According to the results of this classification, the densest sector which operates in CWSs is the software development. While consulting services, advertising, and web design sectors are as dense as software development, the distribution of 10 sectors is balanced. Figure 4.22 compares the summary statistics of the top 10 sectors in CWSs.

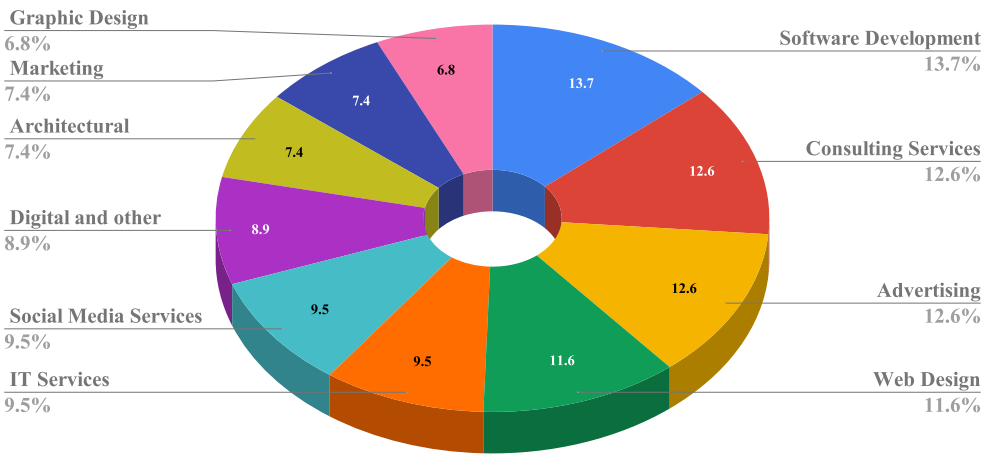


**Figure 4.23 :** Density of sectors in CWSs.

The most obvious finding to emerge from the analysis is that CWSs predominantly host individuals and companies from creative economy. In order to understand the sectors in CWSs, all members of the CWS including virtual office and served office

member are included to the sample. However, CWSs with only hourly or daily use option (only 1) is excluded from the sample.

**Partnership structure of CWSs**

Partnership structure of CWSs are addressed in two aspects. Firstly, the partnership during the establishment process has been investigated. Secondly, the current partnership projects have been carried out during the process have been addressed.

CWSs are significantly private enterprises (95%). There is only one CWS which is founded by local municipality in Istanbul. Besides that, it is reported that only 2 of the CWSs used support such as public fund or international network's resources during the establishment process. Although there is a support, it only constitutes a small part of the establishment investment.

The majority of partnerships in CWSs occurs during the organizations and events. Managers of CWSs considers educations programmes, workshops and events as project-based partnerships. The role of CWSs is mainly as space sponsors for this type of partnerships. Whether it's paid or free event, the benefit of this partnerships for CWSs is creating a learning environment for its members, supporting different groups and ideas, and the most importantly to reach more people.

Besides events, discounted prices for some groups or free space usage are another type of partnerships. In this context, CWSs have partnerships with NGO's, universities, professional organizations, platforms, technoparks, incubation centers and special groups such as makers or artists.

**Communication structure of CWSs**

The method of communication is a significant issue for CWSs. Communication issue has been investigated in two ways. The first one aims to understand the communication within CWSs while the second one reveals the communication methods CWSs use to express themselves.

Considering observations during site visits and interviewees remarks, the design of CWSs features interaction and communication. The results obtained from the surveys are shown that the main communication method in CWSs is face-to-face communication. Managers report that even they use other supporting methods to

support face-to-face communication and help members interact with each other by helping them find the needed person or idea within the community or outside of it.

Other than face-to-face communication, managers gets the support of technology for communication. Among CWSs which respond to question about the methods that they use for communicating within the CWS (90%), 70% of them stated that they use digital tools such as Slack, Whatsapp, Facebook group, Telegram, an interface or an app to communicate with each other inside the hub. Similarly, %35 of CWSs use mail groups for communication. One co-working manager also pointed out that they have an online pool which members of the CWS can use to reach other people on the network.

The next section of the questions about communication structure was concerned with the methods that CWSs use to express themselves and reach to wider communities. CWSs mainly use the power of social media to inform other people for their events, daily lifestyle and opportunities. Each CWS has at least one of social media account like twitter, Instagram, Facebook or LinkedIn. Moreover, %50 of CWSs has a blog that they share regular content. They mostly share updates, news, motivational articles, etc. on this medium. Organising events is the most potent tool for CWSs to reach more people. CWSs organise or host events for members and non-members to establish a social environment that provides opportunities for networking and knowledge transfer. It also let non-members to experience the environment which causes to share this experience with other people. CWSs generally tend to collect contact information from non-members during events which generates an opportunity to mail them for their next events and updates.

**Decision making structure of CWSs**

Management boards mostly hold decision making process in CWSs. Among CWSs with a management board (85%), all of them have co-founder of the CWS on their management board except one example. This exception is the Istanbul part of a global chain (Regus) whose management board is in another country. Management boards have some characteristic differences depending on their establishment structure. The management board of CWS, founded by the municipality, consists of managers from the municipality which also act as an advisory committee. Private initiative CWSs consist co-founders and some cases investors on their management board. Those boards mainly consist from small number of people. While 82% of spaces consists 5

or less that 5 people on their management board, only 18% of CWSs have more than 5 people on their management board. CWSs with many branches around the city has branch managers and they generally report to management boards. CWSs without any management board are mostly the spaces without any branch.

Only minority of CWSs includes their members to decision making process (21%) by using some tools. Among those examples one of them has a management board but developed some tools for the participation of members to the decision-making process. In this process, members are encouraged to take responsibility of the organization and management of some events. More than that, managers create a sharing environment via regular community meetings where members can share their ideas, comments and feedback, and community take action due to it. The role of managers are facilitators in this process. Although decisions are intended to take by community members, community is not included in decisions such as selecting new comers or financial issues.

Despite most CWSs taking decisions via their management boards, there is no hierarchical order between members and managers. CWSs are mostly transparent spaces. Majority of managers or co-founders of CWSs has no separate closed office and works at the same place with other members. It affects the relationship between members and managers. As most managers pointed out during the surveys, members can easily reach managers and claim their requests quickly. Besides small talks during the day, managers use systematic tools for collecting members' ideas such as regular surveys. When asked about if they participate members to decision making process, even the answer was no, the participants were unanimous in the view that they get opinion from the community and consider their ideas before deciding about CWS.

**Organization and Management Structure of CWSs**

Regarding the research results about the community structure of CWSs, it was found that members of CWSs are predominantly SMEs (see community structure chapter). While the organization and management structure of CWSs is examined, it also shows that CWSs themselves are SMEs. Research findings indicates that the organization and management structure of those spaces can be addressed in two categories. The first one is location/branch-based organization and management structure and the second one is department /position based organization and management structure.

According to findings, location-based organization and management structure is expectedly consisted in a branch manager and a guest relations/receptionist. Branch managers are mainly affiliated to upper levels and generally reports to those levels. CWSs with branches are based in this type of organization and management structure. The aforementioned upper levels are referred to the positions such as CEO, CFO, co-founder, community manager, marketing manager, and business development manager. Branch managers are responsible for communicating members in the branch, collecting feedback from the community, and operating the actions decided by upper levels.

Department/position-based organization and management structure is observed in CWSs without any branch. In such smaller organizations, co-founders mostly perform several roles. They decide every operational and managerial decisions while sometimes get the help from external units such as accounting. CWSs with more than one co-founder mostly defines their responsibilities according to their professional backgrounds. For instance, while some of the co-founders take responsibility of content development or membership relations, the others may take responsibility on finance or operations.

### 4.4.4 Results of the typology of CWS

The typology section of the study is organized around the following research question: Q4. What is the typology of creative hubs? Only CWSs are included in the study for the analysis of typologies. The findings of this section reveal that CWSs have different characteristics and cannot put into one typology. However, this doesn't mean that there are no common features of those spaces. Mostly, basic physical services offered in CWSs are almost the same. Similarly, financial structure and partnership structure are not distinctive features of CWSs. Nevertheless, the typologies differ on some other topics: type of the building, physical services, community structure, communication structure, decision-making structure, and organization and management structure. The results of the study suggest that there are four different co-working typologies in Istanbul.

**Type 1: Chain CWSs**

Those CWSs are branch-based organizations of local or global brands. They are service oriented and mostly the same service quality in all locations. They are private enterprises and has no establishment invest from the public funds. They are mostly located in business centers in prestigious buildings in accessible areas of the city. Those type of CWSs host creative workers and a wide range of professionals such as lawyers, private tutors, dieticians, etc. Although they send regular surveys to their members for their requests, the members' inclusion to the decision-making process is absent. Instead of regular member events such as talks or entrepreneurship events, they mostly organize hobby events for members if there is a demand. They have branch-based organization and management structures. There are 7 chain CWSs in Istanbul of this type and only 2 of them are global brands. They cover 71 locations in Istanbul and some of them have other branches in other big cities of Turkey.

**Figure 4.24 :** A view from Type 1: Chain CWS (co-working space).

**Figure 4.25 :** A view from Type 2: Chain CWS (served office).

**Type 2: Lifestyle CWSs**

They have remarkable design concept with well-designed furniture and objects. They are local initiatives with strong global connections and located in renovated industrial buildings/ateliers or well-designed large areas in accessible locations. They both can be branch based structure or single unit. Although their virtual office service includes wide range of professions, the main member profile consists of mostly creative individuals. Creative departments of big corporate companies also tend to locate some of their departments in those spaces. Special events for members are considerable part of the daily routine in those type of spaces. They frequently host many events for wider audiences which provides them with an event space image with many social connection possibilities. Despite the inclusion of members to the decision-making process is low, face-to-face communication possibilities with managers let members express requests and suggestions without any hierarchical order. Those type of CWSs are private initiatives and has no establishment investment from public fund. Their organization and management structure are position based. There are 2 CWSs which covers 5 locations in Istanbul on this type.

**Figure 4.26 :** A view from Type 2: Lifestyle CWS.

**Figure 4.27 :** Another view from Type 2: Lifestyle CWS.

**Type 3: Community oriented CWSs**

They are small local communities in single units without any branch around the city. Their main focus is the build a community around the space rather than providing services. Those type of spaces are small communities considering the number of their members (less than 50). Most of their members are creative workers looking for community spirit. Although the members do not affect the selection of new members, the managers have a selective membership process to provide an effective community. For this reason, managers have an effort to build a community considering a balance between genders, professions, and number of members. Co-founder of those spaces are also part of the community and they tend to include their members to the decision-making process. Events are part of daily routine and a catalyzer for strong community relations. Local or international events, talks and workshops are organized frequently in community oriented CWSs. Public funds can part of the establishment invest for those spaces. Their organization and management structure is position based. There are 4 community based CWSs in Istanbul as a result of this research. They cover 4 locations in total.

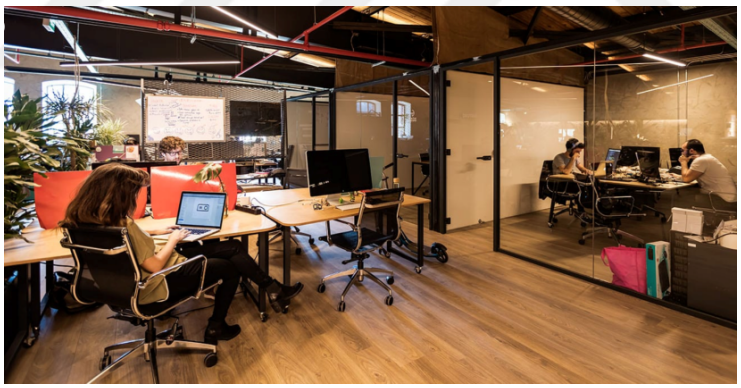

**Figure 4.28 :** A view from Type 3 CWS (co-working area & serviced office).

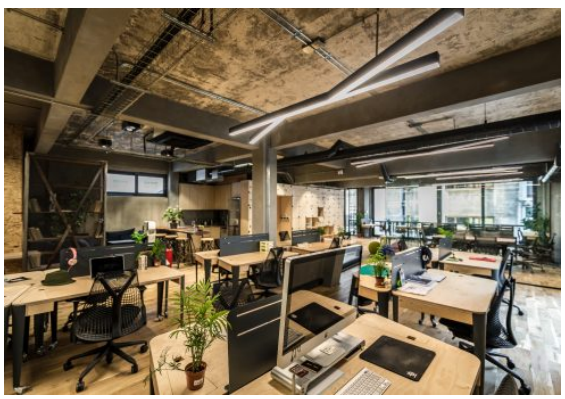

**Figure 4.29 :** A View from Type 3 CWS (coworking space area).

**Type 4: Service oriented CWSs**

Those type of CWSs are similar to chain CWSs. The most significant difference of service oriented CWSs is their single unit structure without any branch around the city. They focused on providing a qualified physical service for their members rather than building a community around a single unit. They are private enterprises and mostly located in standardized office towers or buildings in accessible areas of the city. Events are not the main focus of this type of spaces. Interaction between members randomly emerges in designated common areas. Organizations and events for community building are not the main focus of managers. Although members are not included in the decision-making process in service-oriented CWSs, members get the advantages of being in a small community by contacting managers directly. There are 7 service oriented CWSs in Istanbul, and they locate in 7 different locations.

**Figure 4.30 :** A view from Type 4 CWS (served office)

**Figure 4.31 :** A view from Type 4 CWS (co-working area)

CWSs in Istanbul are mostly Type 1: Chain and Type 4: Service-Oriented. They totally cover 77 locations in Istanbul. The results reveal that the main idea behind establishing a CWS is providing an infrastructure for individuals and SMSs. Although the number of community-oriented CWS is scarce, further research on their impact should be undertaken to investigate.

Taken together, existence of different typologies on CWSs suggests that some distinctive features of CWSs differentiate those spaces. Significant findings to emerge from this study is that different typologies mainly emerge from the differences on the following structures: communication structure, decision making structure, and organization and management structure. Nevertheless, those structures' differences don't imply that physical structure, financial structure, community structure and partnership structure don't have a key role on CWSs differentiation. Conversely, the approach on communication structure, decision making structure, and organization and management structure directly affect the physical structure, financial structure, community structure and partnership structure of CWSs. Considering the data used in this study gathered from the founders/managers perspective, the insights gained from this study may be of assistance to develop policies to implement different CWSs typologies for different location of the city. However, further studies need to be carried out from members' perspectives to reveal their motivation while choosing a CWS to work in.

### 4.5 Evaluation of the Section

As part of the analysis study designed to understand how CHs in Istanbul emerged, what kind of relation they have established with the city and their typological properties, a survey study was conducted with a total of 49 spaces, including CWSs, ICs, makerspaces and labs. The survey study was complemented with the observations made during surveys, the websites and social media accounts of the CHs, and geographic info maps.

CWSs and ICs are the first examples of CHs in Istanbul. The number of CHs began to rise after 2011 and showed a particularly sharp increase after 2015. Private sector is the biggest investor of CHs in Istanbul. Public investments are more focused on ICs. Although few, local governments also have CWS, IC and lab investments.

CHs usually consist of small communities. Majority of CHs have less than 50 registered members. Only a small portion of CWSs have more than 500 members. These are typically those CWSs that have many locations in the city. Majority of CH users consist of people aged 21-40 years. Although the average age of IC users is lower, there are IC users from all age groups. Female users account for a smaller portion of CH users. Only 31% of CH users are females, and this ratio is even lower among IC users. Only 22% of IC users are females. However, CWSs show a more homogenous distribution of gender, with 43% of CWS users being females.

CHs are generally multidisciplinary spaces. Makerspaces in the sample focus on certain areas. Similarly, some of the ICs are concentrated on certain areas and accept applications from only certain areas. CWSs demonstrate the most diversity. There is no CWS in Istanbul that is only for use of a specific sector or community. When the user base of CHs is reviewed, it is seen that the majority of CH users work in creative sectors. The sectors that are represented the most in CWSs include software development, consulting services, advertising, web design and IT services. Technology and software projects are the leading projects supported bin ICs. ICT projects account for 64.5% of the people and enterprises occupying ICs.

CHs offer a wide range of services and differ from traditional workspaces in this respect. The key difference is that the hard services offered by CHs are flexible and based on shared use. One of the key properties of CHs is the soft services that they provide, in addition to the basic physical services such as use of tables, chairs, Internet connection and kitchen. Public events or only-members events allow CHs to create their own communities. CHs hold a wide variety of events, ranging from social events such as yoga sessions and movie nights to skills sharing and training in different fields.

The community that CHs seek to create through the services that they provide may also shed light to the motivation behind establishment of CHs. It is seen that the fact that founders of CHs had similar needs in the past is one of the biggest motivator that drives them to establish CHs in the first place. What leads founders of CHs to actually establish CHs is usually the fact that they needed a workspace when developing a project or business during a period of their career or they had similar experiences abroad. This is the key motivator that drives them to establish CHs. Since ICs are established with a specific motivation, they are excluded from this analysis. The second biggest motivation behind establishment of CHs is to create a network by

bringing together people and communities with similar needs. The fact that CHs create networks and communities and bring together people from multiple disciplines show that their soft services are as important as their hard services.

The CBD of Istanbul is the most attractive location for CHs. The surveys reveal that the most important factor in location selection is the proximity of a given location to the CBD and public transport. Therefore, CHs are concentrated along main artery roads and their access roads. These areas also have a strong public transport network. The European Side houses 70% of the CHs in the city, which can be partly attributed to the CBD being located in this side, too. The part of the Büyükdere Avenue from Levent to Maslak and the area to its West constitute the area which has the highest concentration of CHs in the city. When the distribution of CHs within the city is evaluated, CHs are most concentrated, apart from the CBD, along the D-100 and TEM highways in both sides and in the office zones located along the access roads. Secondly, Bağdat Avenue and its surroundings in the Asian Side, and Haliç, Bosphorus coastline, Galata and Pera neighborhoods in the European Side are the locations of choice for CHs.

There are certain differences among CWSs, ICs, makerspaces and labs in terms of location selection. The location selection decisions are influenced by the identity of the founder and the target audience. For example, the ICs established by the private sector usually prefer those buildings that are located in the city's CBD and the most accessible parts of both sides of the city. Whereas, majority of ICs established within a university are located within the campuses of the respective university. Similarly, while the CWSs and labs established by local governments are located in areas allocated by the respective municipality, the CWSs established by the private sector occupy different types of buildings that are located in the most accessible parts of the city, depending on their target audience and requirements. In this context, the CWSs occupy a wide variety of buildings, ranging from airports to shopping malls, office and residence towers in the CBD, historical buildings, football stadiums and old industrial premises.

Buildings occupied by the CHs offer insight into the functional change of the buildings in the city. Approx. 20% of the CHs are located in buildings that underwent a functional change. CWSs are the ones that most prefer using buildings that underwent a functional change. Buildings that underwent a functional change include in particular

the old industrial premises, old residential buildings and historical buildings. These buildings accommodate many CHs, including CWSs at the top. However, a significant portion of CHs occupy the office buildings that house the current commercial activities within the city. This type of buildings are those prestigious office buildings that are located in areas that offer ease of access to public transport. Considering the fact that freelancers and micro-SMEs form the user base of CHs, the benefits of shared use allow the users to work in the most prestigious buildings of the city. And this is supported by the managers of CHs who, during the surveys, stated that they would like to offer their customers the benefits of this kind of a prestigious location.

The fact that CHs have a diversified user base and occupy buildings with different characteristics requires another research into whether CHs have certain typologies or not. Since ICs, labs and makerspaces are workspaces that address to a specific purpose and specific groups of users, the CWSs with the highest number of locations in the city are the ideal resource for the typology research. Under the typology research which is intended to more effectively evaluate Istanbul's potential in terms of CHs, both physical and non-physical properties of the CWSs have been evaluated. In this context, a review of different properties of the 87 locations owned by 20 CWS brands has revealed that the CWSs had differences among each other which led to different typologies.

The type of the buildings occupied by the CWSs results in significant differences as it affects both their services and the profile of their members. For example, there are differences both in terms of the user profile and the services offered between a CWS located at an airport and a CWS located in an old Istanbul mansion. Membership options also cause changes in the user profile. Different membership options affect many use properties, including the design of the workspace and the available hours of service. For example, the co-working option requires wide open-air spaces within the CWS building. The number of enclosed individual offices affect not only how intensively the open-air and wide spaces are used, but also the number of large teams within a CWS. Options such as meeting room and conference room allow events to be held with multiple participants. Additional services such as music room, nursery room, community membership and library create a difference in the user profile. When combined with the type of building, this situation causes different typologies to emerge.

Non-physical properties also contribute to differentiation among CWSs. In this context, the financial structure, community structure, partnership structure, communication structure, decision making structure, organization and management structure of the CWSs have been examined. While some of the structures being examined cause notable differences, some of them are identical in all of the CWSs. The CWSs have notable differences in terms of financial structure. Almost all of the CWSs (95%) are profit organizations established by the private sector. Although there is only 1 CWS established by the public sector, local governments have begun to understand the importance of CWSs.

Community structure properties such as number of members, gender, age and member profile show that CWSs promote diversity. In terms of member profile, CWSs are multidisciplinary spaces. CWSs have the highest degree of sectoral diversity among all CHs. As expected, in CWSs, the sectors with the creative industries are represented the most. The three sectors that are represented the most in CWSs are software development, consulting services and advertising sectors. Analysis of age distribution indicates that the employees in these sectors largely consist of young people. Members aged 26-35 years constitute more than half (55%) of the total number of members.

Partnership structure does not lead to any differences in terms of partnerships entered during the formation stage. This is because CWSs are mostly founded with own capital. However, ongoing partnerships cause differences among CWSs. Partnerships entered into in connection with new events to be held create a learning environment within a CWS and provide networking opportunities through social interactions during such events. The nature and diversity of such events influence the member profile and CWS' typology.

Analyses of decision-making structures, organization and management structures and communication structures are important in understanding the relations that CWS managers and founders establish with members. For example, how the organization and management structure and communication structure are established determines the way managers involve members into decision-making processes. Those CWSs that have internal functions such as a community manager or events manager often adopt a more systematic approach to community building and evaluation of members' requests. Although this type of functions enable requests to be collected in a more systematic fashion, requests may sometimes be communicated directly to the

managers as CWSs are in fact small communities. While there are only few CWSs that implement certain methods to involve members into decision-making processes, decisions are actually taken by the board of directors. During this process, the feedback from members are also considered. Typologies determined based on analyses of physical and non-physical structures of the CWSs are discussed in the conclusion section.

# 5. CONCLUSION AND CLOSING REMARKS

This thesis study is designed to conduct an in-depth analysis of the CHs in Istanbul. Accordingly, properties of the CHs have been reviewed from a multi-dimensional perspective. The section of the study on the location selection and geographic distribution of CHs provides important insight into, and reviews, the creative hubs in connection with their relation with city. Existing studies in the literature are focused on either social aspect of creative hubs such as entrepreneurship, social networking, social isolation, social relations, tacit knowledge, and sharing economy or physical properties of creative hubs such as proximity, workplaces, and spatial distribution. Furthermore, the literature discusses the organizations such as CWSs, ICs, makerlabs or fablabs on an individual basis. This thesis study discusses the next-generation workspaces that emerged in parallel to the development of creative economy in Istanbul and are based on concepts such as collaboration, networking and resource sharing under the main heading of creative hubs. It reviews both the internal properties of creative hubs and their relation with the city in an attempt to contribute to the literature on urban planning. Research questions have been used to scrutinize the changes that occurred in workspaces and labor in connection with the evolving economic conditions as well as the consequences that such changes may cause in the city. When the findings obtained as part of this thesis are evaluated from the perspective of the research questions, it is seen that some of the properties of CHs in Istanbul are unique to Istanbul, while some of them develop in parallel to other examples of ICs around the world. The findings mentioned in previous sections when evaluating the analysis results have been summarized below in the context of the research questions, and the difficulties faced and the studies that need to be carried out for the future have been described.

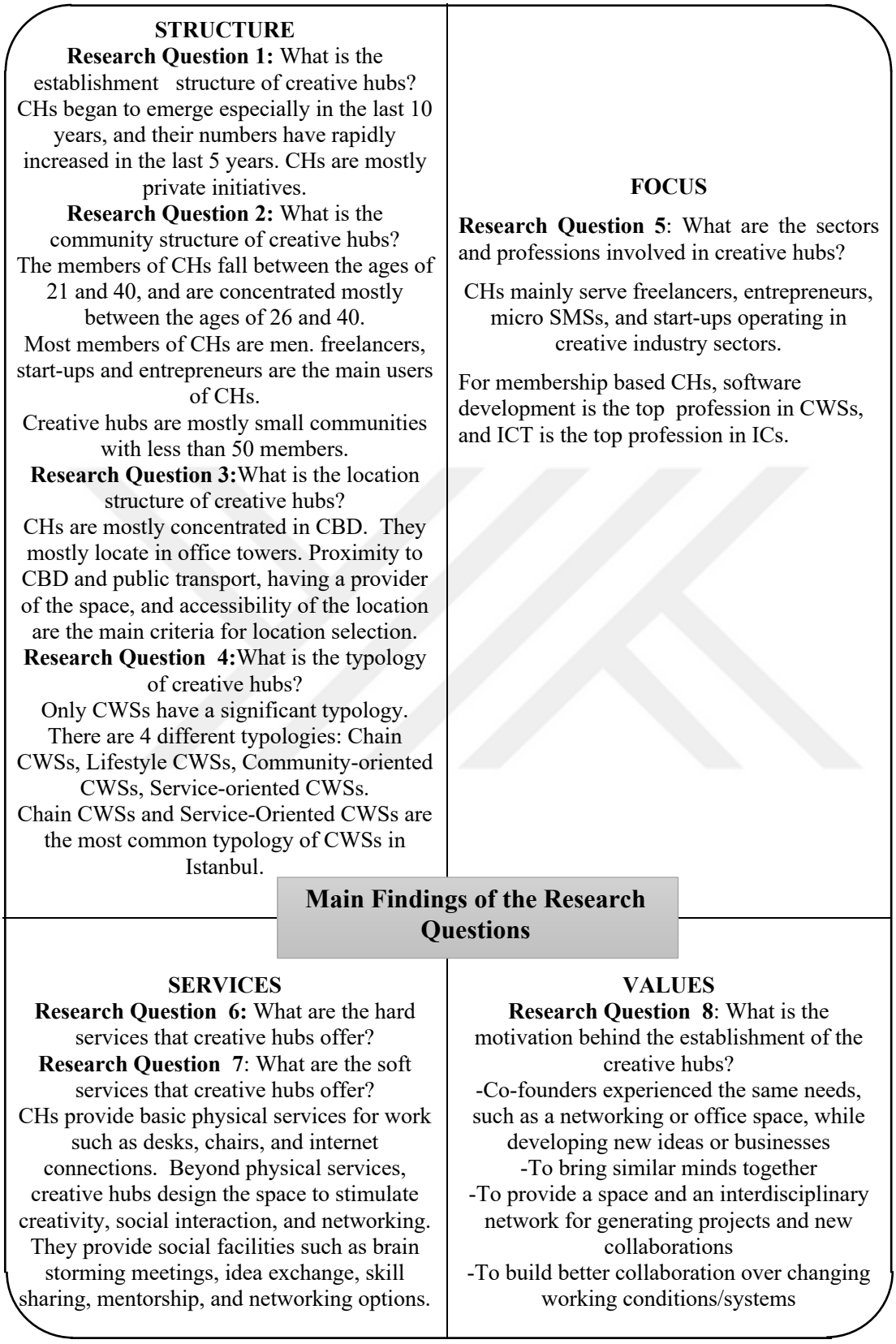


**Figure 5.1 :** Summary of the research findings.

Majority of CHs in Istanbul have been founded by the private sector. On the one hand, this improves competition and quality. On the other hand, it also suggests that the public sector's interest is focused on only certain areas. While local governments assumed a more active role in establishment of labs and ICs, they hardly played any role in establishment of makerspaces and CWSs. The national government played only an effective role in establishment of ICs through universities and ministries. However, the ratio of ICs established in this manner is very low. There is no legal or administrative framework in place concerning the CHs in Turkey. As a result, the national government can play only a limited role in this area.

Majority of the CHs in Istanbul emerged by themselves in response to market needs. This is another reason that the private sector plays a more active role as the founder of CHs. In other words, the reasons which motivated the private sector to establish creative hubs also point out to the efficiencies in the public policies and strategies on this subject. Prior experience and needs of the founders are the biggest motivator that led them to establish creative hubs This situation, when evaluated in combination with other reasons, indicates that there are an increased number of people in the city who need business development support, want to perform networking, work as freelancers, do not want to be isolated from others while working and that these needs have not still been satisfactorily met.

In a similar fashion to the rest of the world, the number of CHs in Istanbul has shown a sharp increase during the last 10 years. The number of CWSs has begun to increase especially after 2015. Collection of data about CWSs on an enterprise basis and failure to obtain the dates when branches were opened has been a limiting factor for the study. Although the number of CWSs in the city continues to increase on a branch basis, this increase has not been observed among CHs in general. A comparison of CWSs on a global scale using databases that include the number of CWSs in different cities has shown that Istanbul is behind cities such as London, New York, Paris, Hong Kong and Berlin in terms of the number of CWSs. Istanbul has, on average, nearly the same number of CWS locations as cities such as Milan, Munich, Amsterdam and Lagos.

One of the most important findings presented in this thesis is the relation between CHs and creative industries. Makerspaces and labs focus on specific areas which are all related to creative industries. The sectors of the top 10 individuals and enterprises working in CWSs are all related to creative industries. More than half of the projects

supported in ICs are associated with ICT and other areas of work are all related to science and technology. Increased number of creative hubs emphasizes the increased potential of creative industries in Istanbul. Findings of the study reveal that the people working in creative industries consist of freelancers, entrepreneurs and microbusinesses. This suggests that the companies are employing less and less employees, while the number of people working as freelancers is gradually increasing. From this point of view, CHs consist of microbusinesses. Their employees consist of flexible groups that come together for collaboration on a specific project and then leave upon completion of that project.

Findings related to gender distribution of CH members show that the people working in creative sectors have a more balanced gender distribution. However, these findings need to be interpreted differently for CWSs, ICs, makerspaces and labs. While CWS have a more balanced distribution, a male-dominated distribution exists in ICs. However, the fact that gender distribution is examined based on membership criterion was a limiting factor for organizations which do not work with a membership system such as makerspaces. A similar situation also applies for age groups. Age distribution data on a makerspace which only works with children could not be included in the study as the makerspace does not have a membership system. It has been observed that the majority of the members of all CHs consist of individuals from the Generation Y. Average age of IC users is lower. This reveals that creative industries employ predominantly young people. Average age is even lower in the areas of entrepreneurship and project development.

The key factor that put CHs one step forward as next-generation workspaces and become differentiated from its former examples is the services that CHs provide and how CHs emerge. The fact that companies has got smaller, the ratio of freelancers to the total number of employees has increased, production equipment have become more compact and affordable, portable computers and mobile devices have become an important tool in production, and remote working methods have been commonly adopted has laid the groundwork for people and groups from different disciplines to come together around shared resources in a flexible way. CHs support this type of co-working through two different properties which complement each other. Firstly, they meet the need for physical space and tools through shared use of resources. Secondly, they offer possibilities for networking, collaboration, new opportunities, support

mechanism, training and social interaction through co-working. Even the organization of the physical space and the events that take place inside it serve this purpose. This value derived from co-existence of hard services and soft services is the most distinguishing property of CHs. This value set the CHs which emerged in response to the needs of the new economy apart from the workplaces that existed before.

Location of CHs is another indicators which show that CHs are one of the new co-working and co-existing methods which emerged as a result of developments in the economy and technology. As flexible working and mobile devices have become widespread, workplaces have begun emerge in places such as airports and football stadiums in an unprecedented manner. Furthermore, similar examples exist in many cities across the world. These spaces can even be sometimes interconnected. For example, a CWS member is eligible for using the services offered by another CWS location of the same company in another country or city. Extending the boundaries of work, this possibility emphasizes how the space-dependent working methods of the past have changed over time as ICT have developed. However, in addition to the properties of the space, properties of the communities have also begun to be determining factor in new working methods. In this respect, concepts such as network and collaboration have gained importance.

Although CHs from different parts of the world show similar properties in terms how they emerged and are located, each city have unique circumstances that affect location selection of CHs. CHs in Istanbul are primarily located in the city's CBD. Considering that this district is the most accessible and prestigious area of the city, two things are noted. Firstly, accessibility is an important factor in location selection. Secondly, the fact that CBD is a preferred location for workplaces operating in creative sectors indicate that CHs tend to be included in creative clusters. And this shows that proximity is an effective factor.

CHs in Istanbul mainly occupy the office buildings that are located in the CBD and along the main transport routes. From this point of view, it can be concluded that CHs in Istanbul show a similar trend to that of the finance and management companies when they began to use their new office buildings along the Buyukdere axis starting from the 1980s. Today, the same reasons also affect the location selection decisions of new firms. CHs located in renovated industrial buildings differ from the examples seen in post-industrialized communities. In post-industrialized communities, a

development model that prioritizes information, technology and creativity has been adopted after the heavy industry model was abandoned. In this development model, many industrial building in the city centers of Europe and North America were reserved for culture & art event and creative industries. Use of old industrial buildings in Istanbul by CHs is different from these examples in Europe and North America. In Istanbul, areas remaining from industrial buildings of industrial organizations which were moved away from the city center became primarily a target for real-estate projects. Today, there is a very small number of CH examples located in old industrial buildings. A significant portion of these examples are located in the old industrial buildings which changed hands during the last 10 years due to the functional change taking place in the area as a result of sprawling of the CBD.

CH examples that are located in old Istanbul Mansions, historical buildings, renovated residential apartment buildings and mixed use buildings constitute the most authentic examples of location of CHs in Istanbul. These buildings which often reflect the old texture of the city are preferred thanks to their atmosphere and properties of the neighborhood in which they are located. Current use of old residential buildings as workspaces is a reflection of the functional change in Istanbul, particularly in the city center.

The fact that CHs display different properties through the buildings which they occupy opens to debate whether certain typologies can be identified based on these properties. This debate also reveals some limitations of the study. As there is a high number of CWSs in the city and they show different properties in different locations, they constitute the single source of the typology study. ICs have not been included in the typology study as they progress through a certain workflow and offer similar services. The total number of labs and makerspaces in the city is too small to provide any data input to the typology study. The typology study carried out based on CWSs shows that examples of CWS in Istanbul largely consist of chain and service-oriented CWSs. This finding is consistent with the fact that most CWSs occupy the office buildings that are located in the CBD. However, this does not mean that the CWSs in Istanbul are less capable of creating their own communities. In other words, a significant portion of the CWS users in Istanbul prefer those CWSs that are located in an accessible area and aim to standardize a certain level of service quality at every branch. These typologies that are most common in Istanbul form an approach that resembles glocalization of

business activities. Lifestyle CWS and community-oriented CWS typologies create a bigger potential as they enable the city to form its unique examples of CWS. Regardless of their typologies, CWSs enable knowledge transfer, interaction and serendipity knowledge potential and networking possibilities, and pave the way for new collaborations.

The Covid-19 pandemic was the most important development encountered during the thesis study. Field study activities for the thesis were completed before the outbreak of the pandemic. However, the pandemic caused many changes in the world, and its effects on the work routines of people were one of the most visible effects. Lockdown decisions taken by governments as part of pandemic measures meant that many workplaces around the world were closed down. Apart from essential on-site works, all business lines began to work from home. In a brief period of time, houses turned into places where people had to meet all of their work, education, fun and accommodation needs. Many large corporations which are especially a part of the new economy declared changes in their work arrangements before the pandemic conditions ended. Google announced that it switched to work from home plan for a one-year period starting from 2020 when the pandemic began (Copeland & Grant, 2020). Similarly, Facebook and Twitter switched to remote work plan within one year after the onset of the pandemic and announced that this change would be permanent and that the employees could optionally select to be permanent remote workers (Conger, 2020; Paul, 2020). Many corporations with the ability of working remotely, such as Microsoft, announced that they would implement a hybrid model in their work arrangement from then on (DelBene, 2021). Although the global pandemic conditions continue to exist, the permanent effects of the pandemic on ways of working have been immediately visible. The field research part of the thesis does not include the effects of the pandemic on CHs. As the study focuses on how CHs emerge, the services and possibilities that they offer and their geographic properties, the study reviews the pre-pandemic period. The changes brought about by the pandemic conditions are so comprehensive that it would take another study to review them.

Obtaining statistical data was another difficulty encountered during the study. Turkey does not have up-to-date statistics on creative industries on a country or province level. Data on a province basis covers only specific periods and has been prepared according to the NACE (Rev2). Failure to renew statistical data makes it difficult to analyze the

current status of Turkey and Istanbul. It made it difficult to assess how Turkey is progressing. At the same time, it prevented Istanbul from being compared with other cities based on up-to-date data. Similarly, as there is not a collective set of policies and strategies concerning CHs in Turkey, no statistical data exists about the number of CHs. However, the fact that CHs in Istanbul are engaged with other examples from around the world, integrated into global networks and have a high-level online visibility have reduced the effects of this lockdown.

The study findings point out to some key points which could affect the future of CHs:

- Global metropolises make investments to develop creative economy instead of industrial production and focus on information and technology production. As CHs are directly related to creative industries, any specific research on CHs need to be dealt within the context of creative economy. Turkey does not have any specific policy in place regarding development of the creative economy. Considering that Turkey currently exports creative products, boasts a young labor, and has a rich cultural heritage and that the number of CHs gradually increases, Turkey has a remarkable potential for creative economy. Before any action is taken that could affect the development of CHs, a set of policies concerning creative economy must be put in place on a national and regional level.
- The current status should be analyzed to identify the actions that need to be taken for the future. Basic statistical data on creative economy needs to be updated on a regular basis, which requires a systematic corporate approach. Basic indicators can provide guidance on developing a roadmap that is tailored according to the requirements of Turkey. These indicators will also allow benchmarking with other countries and cities. Additionally, they can be included in comparative studies conducted in connection with the EU.
- The creative economy emphasizes concepts such as collaboration, knowledge transfer and networking. All decisions and actions required to ensure development of CHs need to be taken according to a model that is based on interinstitutional collaboration and supported by international networks.
- Development of CHs requires a multi-dimensional perspective. On the other hand, one of the most important investments required for development of creative economy is to increase the quality of life. A livable physical

environment, public areas that allow social interactions, education facilities, a strong healthcare infrastructure, social unity based on openness and tolerance, and legal regulations to secure all of these above will increase the urban quality of life. Therefore, to ensure development of creative economy, multi-dimensional policies that could increase the quality of life should be sought, instead of making one-dimensional economic investments.

- The CWSs is the most common type of CHs in Istanbul. Founding a CWS requires less investment and is faster compared to a makerspace, lab or IC. This should be turned into an advantage by quickly incorporating CWSs into action plans.
- Although there are examples of global chain CWSs in Istanbul, majority of the CWSs in the city are local organizations. This presents a potential for creating CWSs that are unique to Istanbul.
- A significant portion of CWSs are located in office tower or other similar buildings. These buildings also house units such as residences and shopping malls. Therefore, ongoing residence projects in the city provide important data to anticipate the distribution of CWSs in the city.
- Local governments taking an active role in founding CHs will help the city to create its own creative communities. For this purpose, local governments should prioritize development of CHs by combining its physical resources and social capabilities or by collaborating with existing organizations.
- ICs are one of the most important components of an entrepreneurship ecosystem. Supporting organizations through national and local plans will help increase the number of start-ups in Turkey and also the amount of investment. This will not only contribute to the economy, but also help improve the entrepreneurship culture of the city.
- Makerspaces and labs are key structures in enabling widespread adoption of the DIY culture, developing local entrepreneurship, encouraging innovation, developing design approaches, breaking down strict processes of mass production and reducing costs through prototyping. There are only a small number of examples of makerspaces and labs, and it is important to diversify such organizations. These organizations play a key role in Turkey's strategy to transition from industrial production to information and technology production.

- Pandemic conditions have led people to question daily urban activities, including public transport in particular. Neighborhoods that have ample green areas, prioritize public spaces and offer bike paths have increased people's resilience during the pandemic. In parallel to this, global concepts such as '15-minute city' have put more emphasize on self-sustaining local units. All of these developments are closely related to increased quality of life as discussed above. These developments may cause work arrangements to evolve into a state which requires less urban commuting, with people working in areas that is within walking or cycling distance. This may also indicate that the demand for co-working spaces in local neighborhoods will increase in the future.

It is hoped that the literature research and field research conducted as part of this thesis and the resulting analyses will help develop the city's creative potential and be used as guidance for future studies to be carried out to increase the number of creative organizations in the city. This study, which is an original and unique study in that it examines creative organizations in Istanbul, is expected to contribute to future studies that will also address examples of CHs, enable international benchmarking and discuss the post-pandemic changes.

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**APPENDICES**

**APPENDIX A:** Table
**APPENDIX B:** Survey for Co-working Spaces
**APPENDIX C:** Survey for Incubation Centers and Accelerators
**APPENDIX D:** Survey for Labs and Makerspaces

**APPENDIX A : Table**

**Table A.1 :** The relation between survey questions and the main categories

| | Related Questions on CWS Survey | Related Questions on IC Survey | Related Questions on Makerspaces, Labs Survey |
|---|---|---|---|
| Structure | Q6, .Q9, Q10, Q11, Q12, Q16, Q19, Q22, Q23, Q26, Q30, Q31, Q34, Q36, Q37, Q44, Q45, Q46, Q47, Q48, Q49, Q50, Q51, Q52, Q53, Q54, Q55, Q56, Q57, Q58, Q59, Q60, Q61, Q62, Q63, Q64, Q65, Q66, Q67, Q68, Q69, Q70 | Q6, Q7, Q8, Q13, Q14, Q15, Q16, Q17, Q18, Q19, Q22, Q23, Q28, Q29, Q30, Q33, Q34, Q35, Q36, Q37, Q38, Q41, Q42, Q43, Q44, Q45, Q47, Q50, Q51, Q52, Q53, Q54, Q55, Q56, Q57 | Q6, Q7, Q8, Q9, Q10, Q11, Q12, Q13, Q14, Q15, Q19, Q20, Q21, Q23, Q24, Q25, Q26, Q27, Q28, Q29, Q30, Q31, Q32, Q34, Q35, Q37, Q38, Q39, Q40, Q41, Q42, Q43 |
| Focus | Q7, Q8, Q17, Q20, Q24, Q27, Q35 | Q9, Q10, Q11, Q12, Q20, Q21 | |
| Services | Q14, Q15, Q18, Q21, Q25, Q28, Q29, Q32, Q33, Q38, Q39, Q40, Q41, Q42, Q62, Q63, Q64, Q65, Q66, Q67, Q68 | Q22, Q24, Q25, Q27, Q31, Q32, Q38, Q39, Q40, Q46, Q47, Q48, Q56, Q57 | Q16, Q17, Q18, Q22, Q25, Q26, Q27, Q33, Q36 |
| Value | QQ4, Q5, Q13, Q40, Q43 | Q5 | Q5 |

**APPENDIX B : Survey for Co-working Spaces**

**Survey – Co-working Spaces**

This questionnaire has been prepared to provide data for the doctoral thesis being conducted in ITU-City and Regional Planning Doctorate Program. The data to be obtained from the questions will only be used within the scope of the doctoral thesis for scientific purpose. Thank you in advance for your participation.

**Prepared by:** Meltem Parlak / ITU City and Regional Planning Doctorate Program

Survey No:

Date:

E-mail address of the participant:

Phone number of the participant:

* Required

Participant information

1. What is your name and surname?*

_____

2. What is your position in your organization?*

---

3. What is the address of your organization?*

---

General Structure

4. How do you describe your creative hub?

---

5. How did you decide to establish your creative hub?

6. What is the year of establishment? *

7. Is your creative hub specific to a sector? *
Mark only one oval.

Yes *Skip to question 6*
No *Skip to question 7*

Sectoral Focus

8. What sector is your space specific to? *

Branches

9. Do you have any branches? *
Mark only one oval.

Yes *Skip to question 8*
No *Skip to question 10*

Branches Info

10. How many branches do you have? *

11. Please specify the location of your branches. (Please specify if the info on your website is updated *

Membership Criteria

12. Is it necessary to be a member to benefit from the services? *

Mark only one oval.

- Yes *Skip to question 11*
- No

Services

13. What are your criteria to choose new members?

_____

_____

14. What are the primary services that come with membership? *

_____

_____

_____

Membership Options

15. Do you have a flexible desk option on a monthly base *

Mark only one oval.

- Yes *Skip to question 13*
- No *Skip to question 15*

Number of Members

(Do you have any branches? Please Specify if the data you provide is for one branch or total.

16. How many members are registered to this option? *

_____

Members Profile

17. What are the sectors that the users of this membership option operate in? Please specify each of them.*

*Check all that apply.*

- [ ] Advertising
- [ ] Digital Advertising
- [ ] Architectural
- [ ] Interior Design
- [ ] Graphic Design
- [ ] Fashion Design
- [ ] Jewelry Design
- [ ] Toy Design
- [ ] Web Design
- [ ] Cultural and Recreational Services
- [ ] Creative Research and Development (R&D)
- [ ] Digital and other related Creative Services
- [ ] Social Media Services
- [ ] Consulting  Services
- [ ] Software Development
- [ ] Hardware Development
- [ ] Video and Computer Games
- [ ] VR Services
- [ ] AR Services
- [ ] IT Services
- [ ] Animation etc.
- [ ] Engineering
- [ ] Marketing
- [ ] Finance
- [ ] Investor
- [ ] Film
- [ ] Television
- [ ] Radio and other broadcasting
- [ ] Publishing and printed media: books, press, and other publications
- [ ] Telecommunication services

- [ ] Performing arts: live music, theatre, dance, opera, circus, puppetry, etc.
- [ ] Visual arts: painting, sculpture, photography, and antiques
- [ ] Cultural sites: archaeological sites, museums, libraries, exhibitions, etc.
- [ ] Traditional cultural expressions: art crafts, festivals, and celebrations
- [ ] Law Services
- [ ] Real Estate Services
- [ ] Construction Services
- [ ] Administrative Services
- [ ] Health Services
- [ ] Chemistry and Biotechnology
- [ ] Psychological Guidance and Counseling Services
- [ ] Other:

Membership Options

18. Do you have a fixed desk option on a monthly basis? *

Mark only one oval.

- ◯ Yes
- ◯ No *Skip to question 18*

Number of Members

(Do you have any branches? Please Specify if the data you provide is for one branch or total.

19. How many members are registered to this option?*

---

Members Profile

20. What are the sectors that users of this membership option operate in? Please specify each of them. *

*Check all that apply.*

- [ ] Advertising
- [ ] Digital Advertising
- [ ] Architectural
- [ ] Interior Design
- [ ] Graphic Design
- [ ] Fashion Design
- [ ] JJewelryDesign
- [ ] Toy Design
- [ ] Web Design
- [ ] Cultural and Recreational Services
- [ ] Creative Research and Development (R&D)
- [ ] Digital and other related Creative Services
- [ ] Social Media Services
- [ ] Consulting  Services
- [ ] Software Development
- [ ] Hardware Development
- [ ] Video and Computer Games
- [ ] VR Services
- [ ] AR Services
- [ ] IT Services
- [ ] Animation etc.
- [ ] Engineering
- [ ] Marketing
- [ ] Finance
- [ ] Investor
- [ ] Film
- [ ] Television
- [ ] Radio and other broadcasting
- [ ] Publishing and printed media: books, press a, and other publications
- [ ] Telecommunication services

- [ ] Performing arts: live music, theatre, dance, opera, circus, puppetry, etc.
- [ ] Visual arts: painting, sculpture, photography, and antiques
- [ ] Cultural sites: archaeological sites, museums, libraries, exhibitions, etc.
- [ ] Traditional cultural expressions: art crafts, festivals, and celebrations
- [ ] Law Services
- [ ] Real Estate Services
- [ ] Construction Services
- [ ] Administrative Services
- [ ] Health Services
- [ ] Chemistry and Biotechnology
- [ ] Psychological Guidance and Counseling Services
- [ ] Other:

21. Do you have serviced office option? *
(Do you have any branches? Please Specify if the data you provide is for one branch or total.
Mark only one oval.

- ◯ Yes
- ◯ No *Skip to question 22*

Number of Members

22. How many members are registered to this option? *

---

Team Size

23. What is the average team size of serviced office members? *
Mark only one oval.

- ◯ 1-2 people
- ◯ 2-3 people
- ◯ 3-4 people
- ◯ 5+ people
- ◯ Other: _____

Members Profile

24. What are the sectors that the users of this membership option operate in? Please specify each of them. *

(Do you have any branches? Please Specify if the data you provide is for one branch or total.

*Check all that apply.*

- [ ] Advertising
- [ ] Digital Advertising
- [ ] Architectural
- [ ] Interior Design
- [ ] Graphic Design
- [ ] Fashion Design
- [ ] Jewelry Design
- [ ] Toy Design
- [ ] Web Design
- [ ] Cultural and Recreational Services
- [ ] Creative Research and Development (R&D)
- [ ] Digital and other related Creative Services
- [ ] Social Media Services
- [ ] Consulting  Services
- [ ] Software Development
- [ ] Hardware Development
- [ ] Video and Computer Games
- [ ] VR Services
- [ ] AR Services
- [ ] IT Services
- [ ] Animation etc.
- [ ] Engineering
- [ ] Marketing
- [ ] Finance
- [ ] Investor
- [ ] Film
- [ ] Television
- [ ] Radio and other broadcasting
- [ ] Publishing and printed media: books, press, and other publications

- [ ] Telecommunication services
- [ ] Performing arts: live music, theatre, dance, opera, circus, puppetry, etc.
- [ ] Visual arts: painting, sculpture, photography, and antiques
- [ ] Cultural sites: archaeological sites, museums, libraries, exhibitions, etc.
- [ ] Traditional cultural expressions: art crafts, festivals, and celebrations
- [ ] Law Services
- [ ] Real Estate Services
- [ ] Construction Services
- [ ] Administrative Services
- [ ] Health Services
- [ ] Chemistry and Biotechnology
- [ ] Psychological Guidance and Counseling Services
- [ ] Other:

Membership Options

25. Do you have a virtual office option? *

Mark only one oval.

- ◯ Yes
- ◯ No *Skip to question 25*

Number of Members

(Do you have any branches? Please Specify if the data you provide is for one branch or total.)

26. How many members are registered to this option? *

---

Members Profile

27. What are the sectors that the users of this membership option operate in? Please specify each of them.*

*Check all that apply.*

- [ ] Advertising
- [ ] Digital Advertising
- [ ] Architectural
- [ ] Interior Design
- [ ] Graphic Design
- [ ] Fashion Design
- [ ] Jewelry Design
- [ ] Toy Design
- [ ] Web Design
- [ ] Cultural and Recreational Services
- [ ] Creative Research and Development (R&D)
- [ ] Digital and other related Creative Services
- [ ] Social Media Services
- [ ] Consulting  Services
- [ ] Software Development
- [ ] Hardware Development
- [ ] Video and Computer Games
- [ ] VR Services
- [ ] AR Services
- [ ] IT Services
- [ ] Animation etc.
- [ ] Engineering
- [ ] Marketing
- [ ] Finance
- [ ] Investor
- [ ] Film
- [ ] Television
- [ ] Radio and other broadcasting
- [ ] Publishing and printed media: books, press, and other publications
- [ ] Telecommunication services
- [ ] Performing arts: live music, theatre, dance, opera, circus, puppetry, etc.

- [ ] Visual arts: painting, sculpture, photography, and antiques
- [ ] Cultural sites: archaeological sites, museums, libraries, exhibitions, etc.
- [ ] Traditional cultural expressions: art crafts, festivals, and celebrations
- [ ] Law Services
- [ ] Real Estate Services
- [ ] Construction Services
- [ ] Administrative Services
- [ ] Health Services
- [ ] Chemistry and Biotechnology
- [ ] Psychological Guidance and Counseling Services
- [ ] Other:

Membership Options

28. Do you have a meeting room to rent? *

Mark only one oval.

- ◯ Yes
- ◯ No

29. Do you have a hot desk option for hourly or daily use? *

Mark only one oval.

- ◯ Yes
- ◯ No *Skip to question 29*

Number of Members

30. What is the average number of people use this option daily? *

Users Profile

(Do you have any branches? Please specify if the data you provide is for one branch or total.)

31. What is the general profile of hot desk option users?*

---

Membership Options

32. Do you have any other membership options besides these specified options above? *

Mark only one oval.

- Yes
- No *Skip to question 33*

Membership Options

33. What is this membership option that you provide? *

---

Number of Members

34. How many members/companies are registered to this option? *

---

Members Profile

35. What are the sectors that the users of this membership option operate in? Please specify each of them*

*Check all that apply.*

- [ ] Advertising
- [ ] Digital Advertising
- [ ] Architectural
- [ ] Interior Design
- [ ] Graphic Design
- [ ] Fashion Design
- [ ] Jewelry Design
- [ ] Toy Design
- [ ] Web Design
- [ ] Cultural and Recreational Services
- [ ] Creative Research and Development (R&D)
- [ ] Digital and other related Creative Services
- [ ] Social Media Services
- [ ] Consulting  Services
- [ ] Software Development
- [ ] Hardware Development
- [ ] Video and Computer Games
- [ ] VR Services
- [ ] AR Services
- [ ] IT Services
- [ ] Animation etc.
- [ ] Engineering
- [ ] Marketing
- [ ] Finance
- [ ] Investor
- [ ] Film
- [ ] Television
- [ ] Radio and other broadcasting
- [ ] Publishing and printed media: books, press, and other publications
- [ ] Telecommunication services
- [ ] Performing arts: live music, theatre, dance, opera, circus, puppetry, etc.
- [ ] Visual arts: painting, sculpture, photography, and antiques

- [ ] Cultural sites: archaeological sites, museums, libraries, exhibitions, etc.
- [ ] Traditional cultural expressions: art crafts, festivals, and celebrations
- [ ] Law Services
- [ ] Real Estate Services
- [ ] Construction Services
- [ ] Administrative Services
- [ ] Health Services
- [ ] Chemistry and Biotechnology
- [ ] Psychological Guidance and Counseling Services
- [ ] Other:

## Members Profile

36. Considering all your members, what is the average age range of your members? Please specify the appropriate percentage of the age range.

*Mark only one oval per row.*

| | %0 | %1-10 | %10-20 | %20-30 | %30-40 | %40-50 | %50-60 | %60-70 | %70-80 | %80-90 | %90-100 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Under 16 | | | | | | | | | | | |
| 16-20 age | | | | | | | | | | | |
| 21-25 age | | | | | | | | | | | |
| 26-30 age | | | | | | | | | | | |
| 31-35 age | | | | | | | | | | | |
| 36-40 age | | | | | | | | | | | |
| 41-45 age | | | | | | | | | | | |
| +45 age | | | | | | | | | | | |

37. What is the gender distribution in your creative hub? (Please specify the percentage)

Events

38. Do you organize member-exclusive events? *

Mark only one oval.

- Yes *Skip to question 36*
- No *Skip to question 38*

Member-exclusive Events

39. What kind of events do you organize for members? *

40. Who decides the content of member-exclusive events? *

Public events

41. Do you organize public events? *

Mark only one oval.

- Yes *Skip to question 39*
- No

Public Events

42. What kind of public events do you organize? *

43. Who decides the content of the events that you organize? *

44. What is the profile of participants? *

Establishment and Partnership Structures

45. Which of the following describes your organization?
Mark only one oval.

- Private Initiative
- Public Initiative
- Local Government Initiative

46. Did you get any support during your establishment process? *

Mark only one oval.

- Yes *Skip to question 44*
- No *Skip to question 46*

Establishment Process

47. Whose support did you get? *

48. What was the subject of the support? *

Establishment and Partnership Structure

49. Do you make partnerships with other organizations during your regular workflow? *

Mark only one oval.

- ◯ Yes *Skip to question 47*
- ◯ No *Skip to question 48*

Partnership Structure

50. What is the subject of these partnerships? *

_____

Location Selection

51. What were your location selection criteria? (Please specify if the data that you provide is only for one branch or general) *

_____

_____

52. What was the former use of the building?

_____

_____

53. Do you think that you provide a creative environment for your members to develop a network and make new projects together?*

Mark only one oval.

- ◯ Yes
- ◯ No *Skip to question 52*

Working Environment

58. How do you provide this collaborative working environment? *

Management Structure

59. What are the units for the operation and management? (e.g., education, finance, etc.) *

60. Do you have a management board?*

Mark only one oval.

- Yes *Skip to question 54*
- No *Skip to question 65*

Management Board

61. How many people do you have on your management board?

62. How often does the management board meet?

63. Does the founder of your creative hub on the management board?*

Mark only one oval.

- Yes
- No

Decision-Making Structure

64. Do you include your members in the decision-making process?*

Mark only one oval.

- Yes
- No *Skip to question 59*

65. How do you include your members in the decision-making process?*

Communication

62. How do you communicate inside the hub and with your members?

63. What do you do to reach new people and members?

64. Do you encourage your members to meet and develop joint projects? *

Mark only one oval.

- Yes *Skip to question 62*
- No *Skip to question 65*

Communication between members

65. How do you encourage your members to meet and develop joint projects?

International Networks

66. Are you part of an international network? *
Mark only one oval.

Yes
No *Skip to question 66*

International Networks

67. Which international network are you part of?

68. What are the advantages of being in an international network?

Feedback Mechanisms

69. Do you contact your members for their suggestions and complaints? *
Mark only one oval.

Yes *Skip to question 66*
No *Skip to section 50*

Feedback Mechanisms

70. How do you get the suggestions and complaints of your members? *

Thank you for your participation.

Meltem Parlak

**APPENDIX C : Survey for Incubation Centers, Accelerators**

**Survey – Incubation Centers, Accelerators**

This questionnaire has been prepared to provide data for the doctoral thesis being conducted in ITU-City and Regional Planning Doctorate Program. The data to be obtained from the questions will only be used within the scope of the doctoral thesis for scientific purpose. Thank you in advance for your participation.

**Prepared by:** Meltem Parlak / ITU City and Regional Planning Doctorate Program

Survey No:

Date:

E-mail address of the participant:

Phone number of the participant:

**Participants Info**

1. What is your name and surname?

2. What is your position in the organization?

3. What is the name of your IC?

4. What is your address?

**General Structure**

5. How do you briefly describe your IC?

_____

_____

6. What is the year of establishment?

_____

7. How many startups do you have in your IC? (Please specify the max capacity of the number of current startups.)

_____

8. What is the total number of entrepreneurs in your IC?

_____

9. Is your IC specific to a sector or area? *

*Mark only one oval.*

- ◯ Yes — *Skip to question 10*
- ◯ No — *Skip to question 11*

**Sectoral Focus**

10. What is sector or area is your IC specific to?

_____

**Distribution of Sectors**

11. What are the sectors that the entrepreneurs and startups involved in?

_____

12. What is the distribution of sectors in your IC? (Please specify the percentage)

_____

**Establishment Process**

13. Did you get any support during the establishment of your IC?
*Mark only one oval.*

- ◯ Yes *Skip to question 14*
- ◯ No *Skip to question 15*

14. Whose support did you get during the establishment of your IC?

_____

**Branches**

15. Do you have any other branches? *

_____

*Mark only one oval.*

- ◯ Yes *Skip to question 16*
- ◯ No *Skip to question 18*

**Number of Branches and Their Features**

16. How many branches do you have?

_____

17. Where is the location of your branches?

_____

**Application Process and Education**

18. How often do you open calls for applications? *

*Mark only one oval.*

- ◯ Always open
- ◯ Other:

19. How does the application process occur? (Please specify the steps)

_____

_____

_____

20. What are the subjects of applications?

_____

_____

21. What are your priority subjects on applications?

_____

_____

22. How long do the entrepreneurs/startups stay in your IC?

_____

23. Do entrepreneurs or startups have to pay a fee to stay in your IC? *

*Mark only one oval.*

- ◯ Yes
- ◯ No

24. What are the physical facilities that you provide for your members?

_____

25. What are the non-physical facilities that you provide for your members? (training, mentorships, etc.)

26. What are the training/education programs that you provide for your members?

27. How do you decide the content of your training/education programs?*

28. Who decides the content of your training/education programs?

29. What is your expectation from a startup/entrepreneur when a business idea is realized or gets an investment?

30. Are your training/educations open to the public?

*Mark only one oval.*

- Yes
- No

31. Do you have any other type of events besides regular training and education programs for members? *

*Mark only one oval.*

◯ Yes *Skip to question 32*

◯ No *Skip to question 33*

**Events**

32. What are the events that you organize besides regular training and education programs?

_____

_____

**Gender, Age, and Team Size**

33. What is the distribution of entrepreneurs by gender (percentage)?

_____

34. What is the age range of entrepreneurs?

| | %0 | %1-10 | %10-20 | %20-30 | %30-40 | %40-50 | %50-60 | %60-70 | %70-80 | %80-90 | %90-100 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 16-20 age | | | | | | | | | | | |
| 21-25 age | | | | | | | | | | | |
| 26-30 age | | | | | | | | | | | |
| 31-35 age | | | | | | | | | | | |
| 36-40 age | | | | | | | | | | | |
| 41-45 age | | | | | | | | | | | |
| +45 age | | | | | | | | | | | |

35. What is the average team size of startups?

*Check all that apply.*

- ◯ 1-2 people
- ◯ 2-3 people
- ◯ 3-4 people
- ◯ +5 people

**International Networks and Partnerships**

36. Are you part of an international network?

*Mark only one oval.*

- ◯ Yes *Skip to question 37*
- ◯ No *Skip to question 39*

**International Networks**

37. What is the international network that you are part of?

---

38. What is the advantage of being part of an international network?

_____

_____

**International Networks and Connections**

39. Do you provide an opportunity for your entrepreneurs to meet with foreign investors?

*Mark only one oval*

- ◯ Yes *Skip to question 40*
- ◯ No *Skip to question 41*

**International Networks and Connections**

40. How do you provide an opportunity for your entrepreneurs to meet with foreign investors?

---

**Establishment and Partnership Structure**

41. Did you get any support during your establishment?

*Mark only one oval.*

- ◯ Yes — *Skip to question 42*
- ◯ No — *Skip to question 44*

**Establishment Process**

42. Which institution did you get support from?

---

43. What type of support did you get?

---

**Establishment and Partnership Structure**

44. Do you make partnerships with other institutions in your current workflow?

*Mark only one oval.*

- ◯ Yes — *Skip to question 45*
- ◯ No — *Skip to question 46*

45. What type of partnerships do you make with other institutions?

---

**Physical Structure and Location Selection**

46. What kind of working environment do you provide for entrepreneurs? *

*Check all that apply.*

- ◯ Open office
- ◯ Closed office
- ◯ Other

_____

47. What are your working hours?

---

48. How many square meters is your area?

---

49. Please specify the physical facilities that you have below:
*Check all that apply.*

- ◯ Meeting Room
- ◯ Workshop Room
- ◯ Conference Room
- ◯ Lab
- ◯ Maker Lab
- ◯ Library
- ◯ Open Kitchen
- ◯ Other:

50. What were your location selection criteria for your IC?

_____

**Management Structure**

51. What units do you have for the management and operation of your IC? (e.g., education, finance, etc.)

_____

_____

52. Do you have a management board?

*Mark only one oval.*

- ◯ Yes — *Skip to question 53*
- ◯ No — *Skip to question 55*

**Management Board**

53. How many people do you have on your management board?

_____

54. How often does the management board meet?

_____

55. What is the percentage of your members that get an investment?

_____

56. Do you consider suggestions and complaints of your members?

*Mark only one oval.*

- ◯ Yes *Skip to question 57*
- ◯ No *Skip to the end*

**Feedback Mechanisms**

57. How do you get suggestions and complaints from your members?

_____

*Thank you for your participation!*

*Meltem Parlak*

## APPENDIX D : Survey for Labs and Makerspaces

### Survey – Labs and Makerspaces

This questionnaire has been prepared to provide data for the doctoral thesis being conducted in ITU-City and Regional Planning Doctorate Program. The data to be obtained from the questions will only be used within the scope of the doctoral thesis for scientific purpose. Thank you in advance for your participation.

**Prepared by:** Meltem Parlak / ITU City and Regional Planning Doctorate Program

Survey No:

Date:

E-mail address of the participant:

Phone number of the participant:

**Participants Info**

1. What is your name and surname?

2. What is your position?

3. What is the name of your space?:

4. What's is your address:

**General Structure**

5. How do you briefly describe your space?

6. What is the year of establishment?

---

7. Is it necessary to be a member to benefit from the services?
   *Mark only one oval.*

   ◯ Yes *Skip to question 10*
   ◯ No *Skip to question 11*

**Sectoral Focus**

8. How many members do you have?

---

9. How many users do you have?

---

**Establishment Process**

10. Did you get any support during the establishment of your IC?

*Mark only one oval.*

◯ Yes *Skip to question 14*
◯ No *Skip to question 15*

11. Whose support did you get during the establishment of your space?

---

**Branches**

12. Do you have any other branches? *

---

*Mark only one oval.*

◯ Yes *Skip to question 16*
◯ No *Skip to question 18*

**Number of Branches and Their Features**

13. How many branches do you have?

14. Where is the location of your branches?

15. Do entrepreneurs or startups have to pay a fee to stay in your space? *

*Mark only one oval.*

- Yes
- No

16. What are the physical facilities that you provide for your members?

17. What are the non-physical facilities that you provide for your members? (training, mentorships, etc.)

18. What are the training/education programs that you provide for your members?

19. How do you decide the content of your training/education programs?*

20. Who decides the content of your training/education programs?

21. Do you have any other type of events besides regular training and education programs for members? *

*Mark only one oval.*

- ◯ Yes *Skip to question 32*
- ◯ No *Skip to question 33*

**Events**

22. What are the events that you organize besides regular training and education programs?

**Gender, Age, and Team Size**

23. What is the distribution of members by gender (percentage)?

24. What is the age range of members?

| | %0 | %1-10 | %10-20 | %20-30 | %30-40 | %40-50 | %50-60 | %60-70 | %70-80 | %80-90 | %90-100 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 16-20 age | | | | | | | | | | | |
| 21-25 age | | | | | | | | | | | |
| 26-30 age | | | | | | | | | | | |
| 31-35 age | | | | | | | | | | | |
| 36-40 age | | | | | | | | | | | |
| 41-45 age | | | | | | | | | | | |
| +45 age | | | | | | | | | | | |

**International Networks and Partnerships**

25. Are you part of an international network?

*Mark only one oval.*

◯ Yes *Skip to question 37*

◯ No *Skip to question 39*

**International Networks**

*26.* What is the international network that you are part of?

_____

*27.* What is the advantage of being part of an international network?

_____

_____

**Establishment and Partnership Structure**

28. Did you get any support during your establishment?

*Mark only one oval.*

◯ Yes *Skip to question 42*

◯ No *Skip to question 44*

**Establishment Process**

*29.* Which institution did you get support from?

_____

*30.* What type of support did you get?

_____

**Establishment and Partnership Structure**

*31.* Do you make partnerships with other institutions in your current workflow?

*Mark only one oval.*

- ◯ Yes — *Skip to question 45*
- ◯ No — *Skip to question 46*

*32.* What type of partnerships do you make with other institutions?

_____

**Physical Structure and Location Selection**

33. What kind of working environment do you provide for entrepreneurs?

_____

_____

*34.* What are your working hours?

_____

*35.* How many square meters is your area?

36. Please specify the physical facilities that you have below:
*Check all that apply.*

- ◯ Meeting Room
- ◯ Workshop Room
- ◯ Conference Room
- ◯ Lab
- ◯ Maker Lab
- ◯ Library
- ◯ Open Kitchen
- ◯ Other:

*37.* What were your location selection criteria for your space?

_____

**Management Structure**

*38.* What units do you have for the management and operation of your space? (e.g., education finance, etc.)

_____

_____

39. Do you have a management board?

*Mark only one oval.*

| | |
|---|---|
| ◯ Yes | *Skip to question 53* |
| ◯ No | *Skip to question 55* |

**Management Board**

*40.* How many people do you have on your management board?

_____

*41.* How often does the management board meet?

_____

*42*. Do you consider suggestions and complaints of your members?

*Mark only one oval.*

◯ Yes *Skip to question 57*

◯ No *Skip to the end*

**Feedback Mechanisms**

*43*. How do you get suggestions and complaints from your members?

_____

*Thank you for your participation!*

Meltem Parlak

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- **M.Sc.** **:** 2010, Mimar Sinan Fine Arts University, Institute of Science and Technology, Urban and Regional Planning Department, Urban Planning Master Program

**PROFESSIONAL EXPERIENCE AND REWARDS:**

- 2019- Ongoing / Turkish Delegate, COST Action CA18214 - The Geography of New Working Spaces and the Impact on the Periphery
- 2015 / Researcher, GlocalFineArt Marie Curie Project
- 2011 / Researcher, Arce Proje, Bursa Metropolitan City Planning – Culture and Tourism Sector
- 2009-2010 / Researcher, Kentsel Strateji, Culture Oriented Strategic Planning
- 2007-2008 / Project Coordinator, Cultural Awareness Foundation, Culture Ants Project for 2010 İstanbul European Capital of Culture

**PUBLICATIONS, PRESENTATIONS AND PATENTS ON THE THESIS:**

- **Parlak M.,** Baycan T., 2018**:** New forms of workplaces in the era of creative economy:The rise of creative hubs in Istanbul. 58th ERSA Congress, Places for People: Innovative, Inclusive and Livable Regions, August 28-31, 2018, Cork, Ireland.
- **Parlak M.,** Baycan T., 2019: Yaratıcı Ekonominin Yeni Nesil Çalışma Alanları: Yaratıcı Hub'ların İstanbul'daki Yükselişi. International Congress, 1. İstanbul Uluslararası Coğrafya Kongresi, Haziran 20-22, 2019, İstanbul, Turkey.
- **Parlak M.,** Baycan T., 2019: The structure of creative hubs: Typology of co-working spaces in Istanbul. 59th ERSA Congress, Cities, regions and digital transformations: Opportunities, risks and challanges, August 27-30, Lyon, France.
- **Parlak, M.,** Baycan, T. 2020. The Rise of Creative Hubs in İstanbul, *European Spatial Research and Policy*, 27(1), 127-147.

- **Parlak M.,** Baycan T., 2021: Location Patterns and Spatial Distribution of Co-working Spaces in Istanbul. 13th World Congress of the RSAI Smart Regions-Opportunities for Sustainable Development in the Digital Era, May 25-28, Online.