The Fourth Italy?

The urban economic geography of contemporary innovation and entrepreneurship. A case study of Rome.

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I, Stefania Fiorentino confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.
Abstract

This study posits the emergence of a *Fourth Italy*, a new urban geography of innovation, which updates the historical tri-partition proposed by Bagnasco (1977). The effects of globalization and new communication technologies have imposed a number of changes in the economic dynamics and labour market of the country. This, in turn, has caused the decline of the ‘Third Italy’ and its industrial district model and the revival of cities as attractors of innovative businesses. This research considers the entrepreneurial ecosystem of Rome and provides an overview of the new actors and intermediaries of this new geographical model: makers, shared service accommodations and start-ups. The entrepreneurial orientation of this new urban economy resembles the starting point of a new Schumpeterian business cycle. A foundational theoretical framework is offered by cognitive-cultural capitalism, embodying culture, creativity, digital technologies and innovation. The objective of the study is to provide empirical evidence of this distribution proposing an incremental contribution to agglomeration theory. A case study design with a qualitative data collection has been used to identify, map and describe the key actors, firms and features of this new entrepreneurial ecosystem as well as the role played by institutions in its genesis. Old and new locations for innovation are compared, namely Third and Fourth Italies. Findings suggest that this urban revival is restricted to small businesses in their start-up phase, when trust relations and local embeddedness are still crucial to their establishment, and that the extensive institutional involvement ultimately disguises a lagging socio-economic context. Knowledge of the Fourth Italy paves the way for future policymaking and research on the new phenomenon of agglomeration.
Impact Statement

Most of the research in economic geography is based on the comparison of various case studies to emblematic examples displaying the leading theoretical and conceptual models of the time. The ultimate goal being the craft of adequate economic development policies and the generation of economic growth and national well-being to improve the living conditions of the interested communities. This research has highlighted that we are now at a turning point in economic geography where the existing traditional studies on agglomeration theory are not enough to explain alone the new urban dynamics of entrepreneurial agglomerations. This research has therefore proposed a new conceptual framework to address the new urban agglomerative challenges faced by the new small enterprises: the Fourth Italy. This thesis provides an incremental contribution to agglomeration theory. In this sense, the first and global impact of this research is theoretical and addresses the scientific community of academic scholars interested in matters of regional and local economic development.

Given its exploratory character and the building of the first primary dataset regarding the Fourth Italy, the current study paves the way for further research in a variety of different fields: social sciences, economics, planning and real estate. The dissemination of the findings has already started through the major academic channels: publications on peer-reviewed journals, poster presentations and talks delivered at international conferences and workshops. Part of the research has also been included in research-based lectures that I was invited to deliver at both postgraduate and undergraduate level showing
that it could have an impact even in education. I am planning to continue the dissemination of the findings by expanding the scope of people reached writing in the future a monography. Additional comparative studies between the Italian case here analysed and other cases of the world, including London that I have already started to analyse in a parallel research project, will enlarge the theoretical impact of the research leading to intra-field collaborations with other scholars.

In addition to that, this research was partnered by CNA Roma, it therefore implies also a practical impact on the Italian context. The dissemination of the findings and expertise produced in this thesis among the practitioners and institutions that have also participated in this research might surely have an impact in shaping tomorrow’s policies for regional and local economic development and innovation creation. The planning dimension of the thesis is also very clear, and it particularly speaks to local authorities. The research points out to the necessity of a restructuring of the Italian planning system and in this sense, I offer the expertise developed through this study to define suggestions for new governance tools that could reshape the appearance and wealth of many urban decaying peripheral areas of Rome and of the other major Italian cities.
Acknowledgements

I would like to thank CNA Roma for offering a partnership to this research and in particular its former president Erino Colombi, who has offered a kind and crucial support during my fieldwork in Rome. Similarly, I thank Studio SPF srl for having sponsored my research and, back in 2015, for believing in this project jointly with CNA.

I would then like to remark my particular gratitude towards my two supervisors to whom I owe the most for my enriching journey at UCL: Prof. Nicholas Phelps and Prof. John Tomaney. Nick has been my conceptual and academic guide. His help has been fundamental in shaping the research that I am so proud of having completed. I am honoured to have had the opportunity of teaching and researching with him. He believed in my career development and helped the improvement of my academic skills. John has always offered a precious second source of help. Our discussions have enriched my knowledge in the field and stimulated my critical thinking. In these four years, I have found a great resource in his academic and professional wisdom, and always found valuable guidance in his words even in the darkest hours of this journey.

A special thank also goes to Prof. Yvonne Rydin, Prof. Peter Rees, and Prof. Michael Hebbert, who all offered additional and equally valuable help in different ways throughout this PhD, making me feel well esteemed and extremely lucky.
I would also like to mention the overwhelming support received, here at the Bartlett, from other staff members and PhD colleagues, with whom I have worked, shared ideas or simply and proudly become friends, enriching my life: Nicola, Valentina, Patricia, Phoebe, Alejandro, Dimitrios, Elisabeta, Lucia, Katy, Calvin, Sonia, Beatriz, Ed, and last but certainly not least Graziano.

Another thank goes to my beloved friends with whom I have shared anxieties and concerns of different forms, especially in the last stages of my PhD: Silvia, Pierpaolo, Silvia G., Fabio, Pierre, Carla, Ivan.

Thanks to my special brother and lifetime reference, Giuseppe, and his amazing family.

Finally, this thesis is dedicated to my parents, Nello and Rosalba, who have offered all kinds of support in these four years. All my love and my complete gratitude go to them, who allowed me to become who I am today.
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List of Abbreviations

CNA – Confederazione Nazionale dell’artigianato e della Piccola e Media Impresa or National trade association for crafts and SMEs

CWS – Co-working space

DC – Democrazia Cristiana, Christian Democratic Party

GRA - Grande Raccordo Anulare

MiSE – Ministero dello Sviluppo Economico

MNE – Multinational enterprise

PCI – Partito Comunista Italiano, Italian Comunist Party

PMI – Piccola e media impresa (SMEs acronym in Italian)

R&D – Research and development

RE – Real estate

SME – Small medium size enterprise

SSA – Shared service accommodation

WWII – World War II
1 Introduction

1.1 Agglomerations after the Third Italy.

The globalization of markets and the diffusion of information technology have challenged the traditional agglomeration dynamics imposing significant changes to the geography and processes of innovation creation. Global production networks (Coe and Yeung, 2015; Henderson et al., 2002) and industrial internationalizations or relocations have enlarged the range of issues examined by economic geography. Literature and studies targeting small enterprises are still anchored to the Marshallian model of industrial districts, often using the Italian case as a landmark. In 1977 Arnaldo Bagnasco gave a picture of the economic geography of the country as divided into three main areas, defined according to the type of industrialization and the surrounding socio-political framework. Other than the usual divide between the underdeveloped South of Italy and the industrialized North (where companies such as FIAT were), the scholar pointed to the existence of a Third Italy. This former geographical model was located in some Central and North-Eastern regions and characterized by industrial districts producing high-quality manufacturing on a small-scale. The most important theoretical contribution made by Bagnasco was the addition of the contextual - spatial and social - dimension to the economic one. Since the 1980s, the Third Italy was taken as an example among economists and social scientists for displaying the traditional Marshallian districts.

At the beginning of the new century however, this traditional district model started to be affected by the widening of boundaries and the new costs
imposed by the emergence of new global markets. Despite being the landmark of the post-Fordist mode of production, districts started to evolve and sometimes to collapse. The first noticeable effects were the loss of their horizontal specialization, or the diversification of their specialized economies with the addition of activities such as ICT or tourism. This phase corresponded in literature to the “information age” (Castells, 2010) questioning the spatial dimension of the economy and the role of places.

Meanwhile, at the aftermath of the general downturn that has followed the global financial crisis of 2008, cities have increasingly attracted attention as being the most suitable environment to nurture new activities and creativity. A separate body of literature had already started to tackle ways to regenerate urban post-industrial sites through the cultural and creative industries. Inspired by traditional concepts from agglomeration theory, Porter’s (1990) cluster theory became a powerful tool for policy makers. Associated with Florida’s theorization on the Creative Class, they fuelled literature investigating the increasingly central role of cities and their urban economies. Glaeser (2011) and the New Economic Geographers paved the way an enthusiastic celebration of the urban environment, with the revival of traditional literature on the socio-economic benefits of urban diversity (Hoover and Vernon, 1959; Jacobs, 1961). However, the centrality of urban economies has also been seen as a sign of dysfunctional national economies (Barber, 2013; Katz and Bradley, 2013).
Even in the major Italian cities new activities are emerging, leaving behind the district experiences. Building upon this urban trend, and on a revival of Schumpeter’s (1961) idea of ‘creative destruction’; economic development policies emerged that supported the rise of new entrepreneurial ventures as the key to trigger a new cycle of economic growth and innovation in many countries of the world. National policy agendas are increasingly referring to start-ups and entrepreneurs, starting to address an ‘Industry 4.0’ (Lasi et al., 2014; MiSE, 2017a). The most recent debate on urban manufacturing mixes the concept of creativity with that of innovation, showing an evolution from the early experiences of creative cities. For this reason this research has found in Allen J. Scott’s definition of cognitive-cultural capitalism (Scott, 2008) a suitable theoretical framework to address this type of enterprises.

More recently, the Makers Movement (Anderson, 2012) has brought forward a new conception of innovation and the democratization of manufacturing using a mix of traditional craft techniques, ICT technologies and new digital fabrication tools. 3D printers, laser cutters and other similar machineries have allowed exploration of new forms of prototyping and small-scale production. New working spaces are emerging to deliver such innovative products or services, accommodating the economic uncertainties of the first stages of development of such enterprises (or start-ups in general), their flexible working habits, and their necessity of cross-sectorial collaborations. All these new challenges are shared by many cities across the world and are shaping their contemporary urban economies. The specific case of Italy suggests the emergence of a new geographical configuration after the Third Italy of the
Marshallian districts, updating the categorization proposed by Bagnasco (1977).

Literature still lacks a clear framework addressing this revival of interest in urban economies and environments, linking it to traditional principles from agglomeration theory. The new urban centrality shapes new scenarios of economic growth, risen in a post decline/austerity age. How can we interpret this back-to-the-city trend? Is it a cyclical reaction to the previous trends of counter-urbanization observed in the global North?

Italy appears as the ideal framework from which to launch such research on small firms and the emerging innovation-led urban economy, offering the possibility to compare the current situation to that of the Third Italy of the industrial districts. The new socio-economics challenges offered to the Italian context seem to suggest a change in its economic geography questioning the emergence of a new - urban based - model corresponding with the new dynamics of labour and innovation: the Fourth Italy. The aim of this thesis is therefore to test the hypothesis of this geographical shift towards the urban and to provide an explanatory study of the new locational patterns of innovation for small firms active in the cognitive-cultural field.
1.2 Key concepts and outlined theoretical framework

1.2.1 Agglomeration theory beyond the Third Italy: the evolution of the industrial district model.

Industrial districts, as spatial concentrations of firms cooperating in a specific sector and connected by strong social capital ties, find their roots in Marshall (1920). They existed in Italy far earlier than the late 1970s, though until Bagnasco’s theorization they were not formally acknowledged by any national policy framework or funding allocation. During the 1980s, they became the distinctive signature of the high quality of “Made in Italy” all over the word. Their competitive cooperation, the importance of social capital, the cultural embeddedness and the flexible specialization of Italian small-scale productions and firms became the landmark of the “second industrial divide” (Piore and Sabel, 1984), as in opposition to large-scale manufacturing based on traditional economies of scale typical of Fordism. The innovative feature of districts resided in the adaptability of their production, capable of delivering a higher quality and personalization than bigger supply chains and benefitting from the knowledge spillovers coming from the co-location of firms.

The other main determinant of the success of the district model was the local institutional support and the socio-political context in which those manufacturing firms were settled (Brusco and Pezzini, 1990; Granovetter, 1985; Malmberg, 1996). Gramsci’s theorization of capitalism deeply influenced the Italian left of the post-war era, providing support to set up factories and warehouses in traditionally rural areas of the North-East and Central Italy.
(Brusco and Pezzini, 1990; Gramsci, 1968). At the beginning of the new century, globalization triggered a wave of new regionalism analysing the different types of agglomeration and electing the Third Italy as a landmark model to retain regional resources and economies (Storper, 1997). However, globalization and the emergence of new markets have also threatened the stability and the resilience of many district areas. The evolutionary patterns of the various Italian cases are multiple: vertical integration and monopolization, shrinkage and depopulation of the surrounding areas with consequences over the labour pool, acquisition by foreign stakeholders, integration of other economic activities with the loss of sectorial specialization, relocation of the target on upper market sectors (De Marchi and Grandinetti, 2014).

In the last two decades, studies in agglomeration theory have tried to address the technological shift led by the new communication technologies concentrating on the Silicon Valley model and its implications for technology and innovation (Engel, 2015; Martin and Sunley, 2003; Saxenian, 2006). The early 2000s have seen a concentration of literature based on the role of techno poles as induced types of agglomerations (Hall and Castells, 1994). However, both models are not suitable for small enterprises: the Silicon Valley model is mostly suitable for firms active in the digital field or big international corporations, while science parks and techno poles have been proved as a failure given their place-less scenarios and their weight on public expenditures. Research on small enterprises therefore still refers to the Marshallian industrial districts from the Third Italy, despite the fact that the surrounding context, the technologies used, and the type of activities have changed over time. From
the analysis of this body of literature, a number of questions remain open: does a new model of agglomeration for small enterprises exist, and how is it shaped? How can we integrate it with the most recent debates on creative and cultural activities?

1.2.2 The Cognitive-cultural capitalism, creativity, new enterprises and the new pressures on cities.

The other body of literature used in this research refers to the wider theoretical framework labelled by Scott (2008) as cognitive-cultural capitalism. The definition acknowledges the entrance of places among the capitalistic offer of goods. The commodification of culture is identified as one of the drivers of the urban shift in economic development policies. Especially under the impact of globalization and new communication technologies, the renewed central role of cities has become an object of investigation in many different fields (e.g. sociology, economics and urban planning). The cultural and then creative industries have shaped the latest urbanization and regeneration trends and more recently they have blended with innovation and technology.

Literature on agglomeration theory and that on creative industries and cities have rarely crossed paths. They have proceeded mostly as separate and parallel bodies until Porter’s (1998) cluster theory, which was a very widely used tool for policy makers. From that moment on, some scholars have looked at cities with a more optimistic approach (Glaeser, 2011), while others have focussed on the increasing inequalities they foster and the implied dysfunctional national economics (Barber, 2013; Katz and Bradley, 2013).
Overall, traditional agglomeration theorists have mainly considered the creative cluster theory as a temporary policy trend (Martin and Sunley, 2003) staying away from the analysis of emergent agglomerations within cities, and leaving that role to the literature focussing on regeneration strategies of post-industrial sites (Hutton, 2010).

Most recently among regeneration strategies, creativity has been replaced by technology and innovation creation. The attraction of new young firms and start-ups has been the trigger for the creation of innovation hubs or clusters of innovative entrepreneurs within our cities. Scott had already foreseen the roots of this shift in his cognitive-cultural capitalism framework. However, especially in the European and North American context a new debate has arisen promoting new perspectives of urban manufacturing and innovation that should be further investigated: for example, the emergence of a phenomenon such as the Makers Movement. The former promotes a new ‘additive manufacturing’ (Conner et al., 2014), blending traditional craft and design skills with software coding and accessible to all (Anderson, 2012; Dougherty, 2012). Makers symbolize an evolving labour market characterized by increasing freelancing rates, coming as a response to the lack of traditional jobs and social securities, and associated to increasing policy agendas dedicated to entrepreneurs and start-ups.

Especially under the US model, a lot of attention has been drawn to the revival of urban manufacturing as a way to restart local productions erased by globalization effects and the digitalization of the Western economy (Kalil and
Rodriguez, 2015). The increased speed of information and communication flows allowed distances to be overcome and remote working while being connected to the rest of the world. Though even in this highly digitalized service economy, the emergence of new working spaces such as co-working spaces (addressed as CWSs from now onwards) and of temporary clusters (such as international events like the Maker Faire) seems to suggest that face-to-face contact still matters to generate agglomeration effects. The highlighted phenomena imply the necessity of an incremental update to the theory of agglomeration that includes the urban dimension and the new innovative activities defined under the framework of cognitive-cultural capitalism. This research intends to address and fill this gap by studying the new agglomerative and entrepreneurial experiences in the contemporary urban environment.

1.2.3 Theoretical contribution

The main aim of this study is to provide an incremental contribution to the theory of agglomeration by bridging its traditional concepts with literature developed under the framework of cognitive-cultural capitalism. The former considers the cognitive evolution of capitalism and the consequences brought about by globalization and the new economy. The main goal I have set myself consisted in the investigation of the new urban concentrations of firms using the traditional perspective of agglomeration theory. The assumption behind this theoretical objective is that the new dynamics of knowledge diffusion and the acceleration of the pace of technology have not changed certain dynamics of the agglomeration process, but that they have only influenced the surrounding enabling context.
Bridging concepts from both bodies of literature lead - after the data collection and the empirical test of the theory building - to the development of a new socio-economic and geographical model alternative to that of the Third Italy. This model expands the three distributions proposed by Bagnasco (1977). Once defined, the new conceptual framework is conceived to be generalizable to similar agglomerations of enterprises outside the Italian territory, as in the previous case of the Third Italy. The new socio-spatial framework of the Fourth Italy - at the aftermath of the global financial crisis and post-industrial districts - speaks to the contemporary urban concentrations of SMEs producing innovation at the small and local scale, that are currently defined as ‘entrepreneurial ecosystems of innovation’.

1.3 A new geography of innovation?

The task of this research project is to investigate the contemporary dynamics of innovation and agglomeration creation. In the previous section, I have highlighted the literature gap that I intend to cover. Assuming the model of the traditional industrial districts from the Third Italy as outdated, the aim is to question the development of a new model of innovation targeting the new innovative entrepreneurs, as exemplified by the Makers Movement. The main research question that I intend to answer with my research is:

- How and why has a new geography of innovation emerged after the Third Italy and its decline?

The main hypothesis behind it speculates that the new geography is urban. The new found distribution could correspond to a new model, expanding the
three socio-economic areas originally identified by Bagnasco (1977), I have therefore labelled it “Fourth Italy” in continuity with the historical categorization.

This main research question has been broken down into three sub-questions answering the main features of the sought geographical model as listed below.

1) **Who are the professionals active in this sector and which are the main features of those activities? Which idea of innovation do they lead forward?**

Answering this first question means identifying the type of professionals and in general the actors participating to the new agglomeration. Such firms are expected to comply to and expand the framework of cultural cognitive capitalism. After the definition and description of the type of firms and entrepreneurs, the second line of investigation regards the pure description of the physical geography.

2) **What is the geography of this emergent urban economy? Why do cognitive-cultural activities choose such urban locations?**

Here the main hypothesis is that - breaking with traditional agglomeration theory - the new concentrations of innovative firms are urban based and profiting from this diversity. Finally, in accordance with the previous studies on cluster and district creation, the role of institutions in shaping the new urban agglomerations will be assessed.

3) **What is the role of institutions in the creation of an innovation hub within the city of Rome?**
The first seeds of this geographical shift of innovation creation among small firms could be seen already in the extensive debate, generated in the late 1990s, on creativity and the city, (Landry, 2000). This research takes up the challenge of joining the planning perspective used by studies on regeneration strategies and creativity with the socio-economic angle typical of the studies on agglomeration theory. So far, these two approaches have been separated. The three highlighted lines of investigation will also be instrumental to settle an underlining comparison between Third and Fourth Italy and to highlight continuities and discontinuities between the two models.

### 1.3.1 The case study of Rome

A case study approach is used to accomplish the research objectives. My study is focused on the city of Rome, the Italian capital city. Rome sits in the Lazio region and it is the most populated city in Italy: 2,868,782 inhabitants for the area contained under the municipal authority of Rome (Comune) and 4,355,725 inhabitants in the whole metropolitan area, which is the largest in Italy. The research has been partnered and supported by Confederazione Nazionale dell'Artigianato e della Piccola e Media Impresa (CNA Roma), the Italian trade association for crafts and SMEs, which has partly influenced the location of the case study. However, the Italian capital city also appeared as the most suitable arena to test the emergence of a new type of agglomeration whose genesis is deeply intertwined with a scenario of economic crisis.

The research has been led in a period of transition between the mayor Ignazio Marino, from the Democratic Party, and the appointment of Virginia Raggi,
from the Five Stars Movement. In the last two decades, as also unveiled by “Mafia Capitale” scam and the following trials, the city has undergone a deep socio-political crisis that has undermined the efficiency of the city planning authority. Informality shapes most of the economic transactions and agreements at the local scale with the lack of a clear overarching and unifying vision for the development of the city.

Rome hosts most of the headquarters of the main governmental public authorities and institutions; therefore, its economy has been mainly shaped by the public sector. As such, it does not display an historical tradition in manufacturing or industrial districts in his surroundings. The few urban industrial sites that the city displays are the result of public expenses and controlled by state-led agencies (Castronuovo, 2013). Scattered examples of top-down cluster creations are the Roman techno poles of Castel Romano and Tiburtino.

Nowadays however the Lazio region promotes the creation of a new class of innovative entrepreneurs throughout the territory. In accordance with European guidelines and the national measures put in place to stimulate economic development (for example the creation of a national registry for innovative start-ups), a number of initiatives to support the new entrepreneurs can be found. Above all, this includes public support offered to the annual gathering of makers: the Maker Faire. The Roman edition of the fair is the biggest outside of the United States and it has gained the label “the European Edition”. The organization of the event stands as a clear institutional will to
relocate the economy of the city towards a more innovative entrepreneurial sector.

For the above-mentioned reasons, as well as for its cultural potential, Rome appeared as the best case to test the emergence of the new model of agglomeration. Unlike cities such as Milan where the economy is thriving, and the private sector is stronger (providing better conditions for new activities), the Roman context presented the possibility to test the new geography in a lagging context, and originated as a rupture with the past. In addition to that, access to the complete institutional network offers an opportunity to test the structure and nature of the linkages and the role played by formal local actors in the development of a Fourth Italy.
# SCOPE AND RELEVANCE OF THE STUDY

## GLOBAL
Increment to the literature on agglomeration theory.
Definition of a new model in economic geography following that of the Third Italy, acknowledging the framework of cognitive-cultural Capitalism.
Definition of the feature of the new professional figure of Makers and the related socio-economic implications.

## NATIONAL
Definition of the future of small businesses and innovation after the Third Italy.
Description of the current distribution of this economic resource.
Description of the scope of the intra-firm networks and the requirements of facilities.
Policy guidance on the new defined perspectives for economic development.
Raising awareness of the issue related to these set of activities.

## REGIONAL
Built of a primary dataset on the location and features of innovative start-ups and co-working spaces in Rome.
Policy guidance for regional economic development based on the knowledge of the range of influence of these innovative activities.
Policy guidance for the organization of dedicated international events in synergy with the city administration.
Description of the structure of the network of innovative firms and the requirements of facilities.

## LOCAL
Policy guidance for regional economic development based on the knowledge of the range of influence of these innovative activities.
Suggestions for new governance tools for planning.
Policy guidance for the new working spaces’ regulations and local authorities’ coordination with the regional plans.

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Table 1.1– The table shows the multi-level relevance and implication of the current research on the fourth Italy.
1.4 Why is this research relevant?

The scope of the current research ranges from a wider theoretical impact at the global scale to some more practical implications for the Roman boroughs at the local scale. Table 1.1 summarizes the relevance of the study at the various levels. As explained in section 1.2.3, the first main contribution consists in an expansion of the theory of agglomeration, integrating concepts deriving from the framework of cognitive-cultural capitalism. This theory-building process opens the path to further research on the new agglomeration scenario that is hitting many urban areas of the Global North. The theoretical knowledge of such dynamics of agglomeration leads to important implications for policies on economic development and implies the future design of more targeted governance tools.

This thesis provides a new conceptual model for economic geography analogous to that of the Third Italy but more rooted in the contemporary temporality. In addition to that, the current research provides further empirical ground to support the knowledge of very recent phenomena such as the rise of the Maker Movement or the changes occurred in the working spaces e.g. the diffusion of co-working spaces, as well as a preliminary assessment of policies targeting start-ups. Both achievements set the basis for further research and assessments expanded to the field of pure econometrics, sociology, real estate and design.

Given the lack of existing data, this research has created its own primary database. On this basis, further research on the Roman territory as well as
comparative studies with other Italian cities could be led. The research describes the type of activities and actors participating in the new agglomerations. The dissemination of the findings through the various channels of publication will contribute to raising awareness of the new model of agglomeration among the business authorities. In addition to that, the study provides important policy guidelines at the national, regional and local level, as detailed in table 1.1. Given the hypothesis of urban settlement, the dynamics regulating those agglomerations are expected to be intertwined with several others such as: real estate market trends, built environment quality, provision of amenities and identity of the location, social and political issues, cultural and historical embeddedness. The understanding of all those variables will contribute in different ways to shape new governance tools for the urban regeneration of the neighbourhoods hosting the new type of agglomerations.

1.5 The structure of the thesis

This chapter has introduced the background of the current research as well as its aims and scopes. To disentangle the narrative around the new (urban) agglomerations, chapter 2 offers a review of the main literature contributions from the two bodies tackled by this study: agglomeration theory and cognitive-cultural capitalism. First, literature relating to the Third Italy is examined and then compared with further international literature on industrial districts. This process is used to understand its features and inspirational role in the following literature on clusters and new regionalism. Then, the most recent literature on creative industries, innovation and the urban centrality is presented. The chapter is organized as a transitional flow from the traditional industrial districts
described by Bagnasco to the most recent studies on the Makers Movement and the new working spaces. For both bodies of literature, the role of institutions in shaping the clustering phenomenon is discussed.

The methodology adopted to answer the defined research question is unfolded in chapter 3. A case study design has been adopted, electing Rome as the ground to collect primary data following a mostly qualitative approach. The main purpose was to collect enough material to be able to describe the key features of this new geographical model while answering the “how” and “why” questions on its emergence. A mix of inductive and deductive approaches has therefore been followed. Most of the data collection draws upon a set of 35 semi-structured interviews led among the key representatives of the Roman agglomeration of innovation. This qualitative analysis has been complemented by quantitative data coming from a pilot survey undertaken at the Maker Faire of Rome 2015, a desk review, and the mapping of the Roman start-ups and CWSs. The set of chosen methods allowed a comparison with the situation of the Third Italy situation, usually concluding each major empirical section of the thesis.

The core of this thesis is organized around three empirical chapters (4, 5 and 6). This choice follows the threefold nature of the investigation. First, in chapter 4 I frame the new agglomerations by providing a descriptive account of the actors and the firms involved with insights on the general context. To do so, I review the findings from the pilot survey used as a window of observation for the following steps of the investigation. Then, chapter 5 is dedicated to the
physical geography of the Fourth Italy. Here I review the concentration areas and the different typology of shared working spaces, deducing reasons for such locational patterns. Finally, the third empirical chapter (6) has a more inductive approach; it discusses the role that institutions have played in the development of such urban ecosystem of innovation and the reasons why it has emerged. Drawing upon methods used for social network analysis the chapter also illustrates the structure of this ecosystem of innovation and the role played by the new emerged intermediaries.

Each chapter in answering one of the proposed sub-research questions will propose a comparison with the situation of the Third Italy trying to highlight contextual patterns and similarities in the approaches. The main reason motivating the investigation is to provide a base of knowledge to inform future policies on the subject (Fothergill and Gudgin, 1985), and table 1.1 shows the relevance of this study at the different scales. Chapter 7 concludes the thesis by discussing policy implications and guidelines, future lines of incremental research, and detailing the theoretical contribution made by the study. It is only by a formal recognition by policy makers that the Fourth Italy might switch status from emergent myth to embedded reality.

1.6 Conclusions

At the moment, activities in the cognitive-cultural economy are not included in any of the traditional economic sectors, thus it is not clear how exactly they participate in the national wellbeing or economic growth. The decline of jobs in traditional sectors like manufacturing and the high speed of technology suggest that nowadays cognitive-cultural capitalism controls a raising part of
the labour market, also shaped by a growing number of self-employed people. The understanding of the proposed geographical model of agglomeration is crucial to delineate scenarios of development based on the new urban entrepreneurial sector as well as to provide a conceptual base for relevant policies producing benefits to the sector.

The contrast between Third and Fourth Italy offers a parallel with the evolutionary implications of capitalism. At the time of the industrial districts from the North East, their identification with an evolutionary phase of Capitalism divided scholars: the more enthusiastic ones identified in districts the seeds of a second industrial divide (Piore and Sabel, 1984), while the more sceptical ones questioned its resilience as innovation models (Amin and Robins, 1990). The current debate around the ‘industry 4.0’ – including makers and the new service-based innovation that is back to metropolitan areas - seems to evoke a similar conundrum. The emergence of a Fourth Italy in a post-recession scenario is deeply intertwined to the new cognitive dimension of capitalism, and it brings a number of implications for future generalizations on innovation creation as in the case of the district model.

*If the Italian industrial districts from the Third Italy were the symbol of post-Fordism, which era are we entering with the delineating Fourth Italy?* Despite being in its infancy, the description of this new urban economy - and the development of an economic model linked to it - might open the path to a number of new research perspectives. This thesis raises attention to the subject, shedding light on the structure of this new urban economy and
opening the debate on future policy implications in several fields, from the planning and real estate dimension to the social and economic ones. Spreading the knowledge on the Fourth Italy will allow the development of tailored policy interventions and governance tools to maximize the positive externalities of this new phenomenon of agglomeration.
2 Literature Review

2.1 Introduction

This chapter reviews the main literature relevant to the decline of the Third Italy and various steps that led to the genesis of a new type of urban agglomeration of small firms. The narrative sets the basis for the definition and the empirical description of the Fourth Italy, which is the purpose of this thesis. To do so, I discuss traditional concepts from agglomeration theory, as well as most recent concepts from cognitive-cultural capitalism (Scott, 2007). The chapter begins explaining the context and the socio-economic dynamics from the Marshallian industrial district model, with a special attention to the ‘Third Italy’ (Bagnasco, 1977). Some classic literature contributions explaining the post-fordist productive model from the districts are commented upon. These studies have elected the Italian case as a landmark for agglomeration theory (Goodman et al., 1989; Piore and Sabel, 1984). At the beginning of the new century though, the globalization of markets, the new communication technologies, and the increasing mobility of people and goods, started to challenge this localized productive model with examples of decline and mutations registered in Italy and elsewhere.

Despite their slow decline, districts became the subject of a variety of studies on new regionalism (Storper, 1997), identified as a way to retain local economic assets and resources contrasting the disruptive effects of delocalization and the internationalization of firms. This also is the time of cluster theory (Porter, 1998) and creative cities (Florida, 2002; Landry and Bianchini, 1995): tools used by policy makers to regenerate post-industrial
areas artificially recreating some of the agglomeration dynamics found in districts. At the beginning of the new century such topics mainly related to the planning field while literature in economic geography was divided between studies on the “informational age” and global production networks (Castells, 2010; Coe and Yeung, 2015) and a renewed attention on cities and their urban economies. In particular, the ‘New Economic Geography’ focuses on the revival of some traditional ideas by Hoover and Vernon (1959) and Jacobs (1961), celebrating cities for their role as incubator of new activities and attractors of human capital (Duranton and Puga, 2001; Glaeser, 2011).

To tackle these latest urban trends, the second part of this review presents a selection of contributions useful to understand the framework and the possible expansion of the cognitive-cultural capitalism defined by Scott (2007). The author has highlighted that the discussion around creativity and the commodification of culture represents an evolutionary step in capitalism. I use this theoretical framework as an encompassing one to retain all the concepts accounting to the cultural, creative economies and beyond. Ultimately, it refers to those industries that do not conform to any traditional economic or sectorial categorization but whose settlement and development is shaping the contemporary process of urbanization. More recently, the debate has included a discussion on start-ups, the Makers Movement and the creation of entrepreneurial ecosystems influencing processes of innovation creation in urban areas, which will be the final object of this review.
To achieve the ambitious objective of joining the two bodies of literature above mentioned, the present review is chronologically and conceptually organized into two main parts. The first part (section 2.2 and 2.3) critically defines the set of ideological, locational and institutional patterns from agglomeration theory and therefore the Third Italy. While the second part prepares the ground for the integration of new concepts in the defining new agglomeration model, therefore it discusses the cognitive-cultural framework until the most contemporary discussions (section 2.4, 2.5 and 2.6).

The chapter mirrors the structure of the thesis by discussing each of the two bodies of literature according to three main lines of narrative. I first assess studies on the actors and the type of firms involved. Secondly, I discuss the geographical implications. Finally, I provide an account on the role and influence of institutions in shaping such phenomena. The three narratives are ordered chronologically until the most recent topics that presents consistent literature gaps that will be filled by my empirical data collection.

This research intends to provide an incremental contribution to agglomeration theory, bridging it with the most recent concepts relating to the geographical sphere of cities and the cognitive-cultural industry (see figure 2.1). To do so the review cuts across the different disciplines to show that the evolutions occurring in the traditional manufacturing sector within the district areas, and the development of an entrepreneurial class at the urban scale, are two phenomena closely linked. In other words, this chapter sets the basis for a comparison between old and new locations for innovative SMEs,
corresponding respectively to the Third Italy model and a new geographical and economic model, the Fourth Italy, tested by the empirical data.

Figure 2.1 – The conceptual diagram shows the contribution that this study gives to theory building. Concepts from agglomeration theory and the framework of cognitive-cultural capitalism are joined to set the basis of a new conceptual framework which is represented by the emerging economic and geographical model of the Fourth Italy.
2.2 Unpacking the features of the traditional industrial district and the derived forms of agglomeration.

2.2.1 The Third Italy of the traditional Marshallian industrial district: typology of firms and localization patterns.

The Italian economic geography is usually conceived as divided into two distinct areas of development. A wealthy and industrialized North actively contributing to the Italian GDP and an underdeveloped South, often subsidized by the State and object of the dedicated interventions of the Cassa del Mezzogiorno. This partition was then updated by Bagnasco (1977) who brought attention to the industrial districts and the concentrations of small manufacturing enterprises of the North-East and part of central Italy, labelling it as ‘Third Italy’. Those concentrations of specialized manufacturing firms - with a very peculiar horizontal level of specialization as in the typical Marshallian industrial district - were silently and unexpectedly actively contributing to the Italian economic growth, although they were not included in any economic policy or index until that point.

Alfred Marshall’s “Principles of Economics” (1920), planted the seeds for any study on localization economy. He is acknowledged as the pioneer of the industrial district model being the first to delineate their features. Districts are here described as a geographical concentration of small and medium sized enterprises or craft firms, which are active in a specialized market sector and produce a specific good or any product related to it. These networks of firms show a narrow horizontal specialization, as usually each firm operates in a
particular part of the common productive chain. Moreover, they are spatially defined communities, so the location is fundamental for their definition and their geographical boundaries should be easily recognized, as they are usually constituted by natural, political or historical reasons. Finally, the craft attitude and the small size of the firms involved in these districts allow certain flexibility in the production, conceived as a synonym of higher quality outputs.

Figure 2.2 The cover of the Book from Bagnasco (1977) showing the graphical repartition of the three economic areas.

According to Marshall (1920), the district’s most important feature was that “industrial atmosphere” within the community, which ensured the specialized labour turnover as well as the transmission and the inheritance of activities at any generational switch. Moreover, Marshall stressed the cultural belonging and the social linkages within the districts as the most remarkable feature of this productive and efficient “industrial atmosphere”:

“So great are the advantages which people following the same skilled trade get from near neighbourhood to one another […] but
are as it were in the air, and children learn many of them unconsciously. Good work is rightly appreciated, inventions and improvements in machinery, in processes and the general organization of the business have their merits promptly discussed: if one man starts a new idea, it is taken up by others and combined with suggestions of their own; and thus it becomes the source of further new ideas. [...] Social forces here cooperate with economic: there are often strong friendships between employers and employed” (pp. 227-228).

In other words, this atmosphere would have guaranteed the three main features that nowadays are estimated as essential to recognize an industrial district, which transferred in contemporary language would be: economic linkages within the firms in the district, knowledge spill-overs among both individuals and the different firms, and a dense specialized labour pool to rely on (Asheim, 2000). Since the mid-1980s, research assessing innovation and the performances of small and medium sized enterprises (SMEs) entails the analysis of Marshallian districts.

Bagnasco’s work set the basis for this worldwide success of the Italian industrial districts among scholars analysing post-Fordism scenarios from different disciplines. Though it is then with Piore and Sabel (1984), that even foreign research started to be interested on the Italian framework or to translate and spread the Italian domestic literature (Goodman et al., 1989; Pike et al., 1990). Piore and Sabel (1984) identified the “flexible specialization” of the Italian industrial districts as a possibility to contrast the transition to a post-
Fordist society and therefore to the general downturn and de-industrialization experienced by mass productions in many advanced capitalist countries during the late 1970s.

The two scholars predicted that the type of flexibility found in small-scale productions from district areas would have shaped the following decades of technological development, starting the ‘Second Industrial Divide’. A consistent body of literature analysed the economic growth made possible by the district structure while stressing the positive externalities coming from a shared location such as the use of the same infrastructure and the generation of economies of scale (Amin and Thrift, 1992; Krugman, 1993a; Phelps, 1992). In all those studies, the Italian case remained as the most emblematic representation of the sought flexible specialization to boost local economies. Giacomo Becattini - the most credited Italian scholar on the subject - claimed that Italian Industrial District’s structure has been responsible for the success of “Made in Italy” around the world from 1960s until the late years 1980s (Becattini, 1998).

Districts from the Third Italy were characterized by SMEs producing goods mostly related to the textile, design, fashion or homeware. This kind of manufacturing employed high skilled and flexible labour and the produced goods were mostly destined to export on luxury or niche market sectors (Bagnasco, 1977) as opposed to the unskilled workers traditionally required for the Fordist mass productive system. The particular combination between the small dimensions of the involved companies and the local political support
allowed the district structure to be so successful in Italy. Recalling Porter’s (1990) ideas on the ‘competitive advantages of nations’, Becattini (2000) claimed that the balance between cooperation and competition in the district milieu was achieved because proximity had erased spatial monopolies, forcing firms to be up to date, to innovate themselves as well as to be informed on competitors’ choices. During the 1980s and the 1990s, the craft of dedicated policies (law 317/1991; see also section 2.2.2) allowed for the creation of dedicated infrastructures and facilities (e.g. professional training institutions, trade association or territorial organizations) that encouraged economies of scale and cooperation among firms in the same district. (Becattini, 1990). This balance between competitiveness and cooperation have controlled the pace of manufacturing innovations until the late 1990s (Dei Ottati, 1994). We could claim that districts were the place for innovation at the scale SMEs throughout the Second Industrial Divide, right until the start of the new century that signed their decline.

Figure 2.3 Typical morphological pattern of an industrial district area. The map shows the Riviera del Brenta, footwear district.
Another peculiar feature of the Third Italy was the geographical location. Districts were not settled in metropolitan nor urban areas; they consisted of small factories located in rural or suburban areas, previously agriculture based, with room for development and urbanization. Hence new expressions like ‘industrial sprawl’ (industrializzazione diffusa) or ‘urbanized countryside’ (campagna urbanizzata) were coined to identify these settlements. Here, the fruitful interaction between those small enterprises and the local political authorities from the historical Christian Democrat (DC) and the Italian Communist party (PCI) allowed for these developments.¹ These political parties, facilitated the transition from a mainly rural context with an agricultural economy to a more industrialized landscape by setting funds to acquire lands and to settle production sites with the related machineries (Bagnasco, 1977; Becattini et al., 1983; Piore and Sabel, 1984).

Evidence from historical reports on the Italian situation shows that industrial districts with a narrow horizontal specialization - following the Marshallian model – and a deep political support at the local scale have characterized the development and the manufacturing production of part of Northern and Central Italy starting from the years 1960s (Bagnasco, 1977; Becattini, 1998). The Italian business landscape has always been composed by a high proportion of small and medium sized enterprises (SMEs), but the socio-political context of regions like Veneto and Emilia-Romagna was the main distinguishing element for the establishment of industrial districts in that particular geographical area

¹ The PCI party historically ruled in the Emilia Romagna region while the DC party was instead elected in Veneto and the other Eastern regions.
in the post-war era. Here, the local institutional and political support they received derived by the Italian interpretation of socialism advocated by Palmiro Togliatti (Brusco and Pezzini, 1990). Based upon Gramsci’s reading of Fordism and relating to Benedetto Croce’s philosophy (Gramsci, 1968), the underlining idea was that small entrepreneurs could contrast traditional capitalism and avoid state monopolies, which were typical of the fascist era under Mussolini.

Further geographers have expanded Marshall’s work, following overall two methodological approaches: either investigating the different features of districts around the world or testing the way they displayed the typical Marshallian characteristics. In both situations, this case study literature has provided incremental contributions and empirical proofs to the Marshallian theorization from a variety of different contexts. Among these geographers who sought for case studies showing Marshall’s peculiarities on the subject of SMEs and crafts there are Becattini (2000), De Propris and Lazzeretti (2007) or Dunford (2006). The conception behind this theoretical interest resided in the decline of Fordism as an overarching economic model and the necessity to find new references (Lovering, 2009).

Based on the idea of flexible specialization led forward by Piore and Sabel, and the new manufacturing perspectives it opened, many incremental studies were produced on agglomeration theory especially during the 1990s and the early 2000s. Going back to the definition of the key features of the ‘industrial
atmosphere’ given by Marshall, we could categorize the studies on districts by defining three main lines of investigation:

1) the description and the assessment of the features of the industries involved in this flexible specialization and their economics (De Propris and Lazzeretti, 2007; Dunford, 2006; Scott, 1988a; Storper, 1989).

2) their locational patterns or the physical geography of districts (e.g. Gordon and McCann, 2000; Malmberg, 1996; Morgan, 2004; Ramírez-Pasillas, 2008)

3) the institutional patterns and the structure of their networks (e.g. Amin and Thrift, 1995; Bagnasco, 2009; Markusen, 1996; Pyke et al., 1990).

Most of these incremental studies have explicitly looked at the Italian case - in particular at the districts from the regions of Emilia Romagna or Veneto - as the reference to build up their narrative. Those studies looked in particular at the organization of the social networks and at the relations of trust established among firms and between firms and local authorities i.e. stepping stone works such as Scott (1988b), Storper (1989), Markusen (1996), or Gordon and McCann (2000).

On this subject, Granovetter (1985, p. 482) defined the concept of embeddedness claiming that the economic behaviour of a certain area cannot be parted from its social and political context or patterns:

“the behaviour and institutions to be analysed are so constrained by ongoing social relations that to construe them as independent is a grievous misunderstanding”.

Harrison (1992) underlined how the concept of the externalities coming from proximity had changed throughout time. He distinguished between the logistic
approach of earlier researchers relying upon Marshall theorization and the latest studies focusing on Granovetter’s (1985) idea of *embeddedness* and trust relations between firms. In particular, the scholar pointed out that the second perspective is entangled with the changes occurred in manufacturing techniques, which brought some differences in the inter-firms linkages and in the awareness of competitors. For instance, when trust relations are not involved, firms only get to know their competitors by reading names appearing on business intermediations and contracts, while in the Marshallian districts the social *embeddedness* given by the spatial proximity changed the situation. The importance of those inter-firm linkages has also been investigated by a branch of economic sociology (Simmie and Sennett, 1999) specifically referring to the ‘socio-cultural’ ties of the traditional Italian industrial districts.

There are indeed important similarities between the key features of the Marshallian ‘industrial atmosphere’ and the social context of the Third Italy. Cultural *embeddedness* or social capital have been proved by several studies as the common thread of the Italian local and regional economic development (Boschma, 2005a; Crescenzi et al., 2013). The attitude of entertaining informal linkages based on reciprocal trust and cooperation can be traced back to historical reasons as the genesis of the Italian traditional administrative structure or ‘comune’⁴. Similarly, districts were generally settled in small towns

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⁴ The *Comune* unit and its historical peculiarities, as well as the “family-oriented” network model are part of the Italian tradition and cultural geography. A *Comune* is the smallest territorial unit in Italy and it corresponds to the institution ruling a city, town or village. Its origins have to be historically traced back to the Middle Ages as a natural association of citizens with their own laws and rules rebelling against feudalism. Some of them were so strong that they often became little independent States. This situation led Italy to be a fragmented country until 1690: divided into an array of small states with their own language and laws (Milani, 2005). Family capitalism and traces of enterprises identified with family surnames are found in Italy since the Renaissance age. If social capital is seen as a positive element
whose policies and economical choices were oriented to protect their development (Becattini, 1987; Sforzi, 2008). As analysed in the following section, the institutional behaviour has strongly influenced the dynamics of the Italian industrial districts, being the necessary condition to allow the flourishing of such specialized industries.

2.2.2 Relations of trust, political ideology and the role of institutions in establishing the Third Italy

An examination of the evolutionary features of the industrial districts cannot overlook the role of the various political and economic institutions in shaping the Third Italy. To understand it, we need to take a step back gasping the political ideology behind such horizontal economy. As briefly discussed in the previous section, the political support granted by the DC party in the North-East and the PCI in the centre was key to determining the success and resilience of the Third Italy (Trigilia, 1986). After the Second World War and up until the mid-1970s, those two parties shaped ‘the social re-engineering of Italy’ (Bagnasco, 1977, pp. 96–103). Nowadays both parties do not exist anymore, it could be argued that the decline of such political ideology corresponded also to the decline of the district model.

The political support granted to the Third Italy was only in part due to the Italian cultural tendency towards the establishment of networks of trust (Boschma, 

within the Italian industrial districts producing inter-firm cooperation, the non-cooperative ‘amoral familism’ is instead considered one of the main causes of the economic gap between North and South of Italy (Dei Ottati 1994; cf. Bamfield 1958 for the ‘amoral familism’ concept).
2005a; Crescenzi et al., 2013; Storper, 1995). It indeed disclosed a political will to re-invent an Italian middle class, which is key to understand the district governance. As it was pointed out in section 2.2.1, the Italian left ideology of that time took inspiration from Gramsci’s philosophy (Gramsci, 1968). In his *Notes from Prison* he spoke about “Americanism and Fordism”, arguing that capitalism is embedded in socio-economic and historical influences. He therefore criticized the American influence over the global economy and the standardization and monopolization promoted by fordist mass production (Antonio and Bonanno, 2000). Togliatti’s politics, in the aftermath of the Second World War, informed by Gramsci’s philosophy supported smaller size entrepreneurs to contrast the economic monopolies that were typical of the Fascist era (Brusco and Pezzini, 1990).

Despite SMEs and craft enterprises already existing, the Italian left in the post-war restructuring period allowed for the emergence of the Third Italy as an economic entity. As described by Brusco and Pezzini (1990) the Italian DC and PCI parties, responded to socialist movements in a very peculiar way, deeply influenced by the national cultural embeddedness. They supported small enterprises as an ideological contrast to mechanization and mass-production, and they believed it was easier to re-instit economic growth and to penetrate the economic fabric through small enterprises. Later on, they also aimed to contrast and control the increasing trade unions’ recriminations and demonstrations shaping Italy during the 1970s. Such turmoil also induced large industries to entrust certain part of the production to small manufacturing factories, escaping unions’ attention.
In terms of national policies, the support offered to local manufacturing firms was translated in:

“Favourable terms of credit and no-security loans, and in lobbying for the introduction into company finance legislation of provisions for the allocation of specific funds to small companies. Given Italian rituals of partnership-based democracy, the increase in funds earmarked for small firms and their associations has always represented an essential stage in the process of securing the passage of these laws” (Brusco and Pezzini, 1990, pp. 152–153).

In short, the main measure in place was a system of small loans dedicated to set up the plants of those small-scale manufacturing firms. The consequence was the shift from a mostly rural landscape to an “urbanized countryside”, although firms remained mostly family run and craft oriented (Piore and Sabel, 1984, pp. 227–228). We will see in chapter 6 that not much has changed in terms of policy tools and funding opportunities offered to contemporary emerging firms from the speculated Fourth Italy.

The role of formal informal institutions in establishing industrial districts as places nurturing innovation was crucial (Trigilia, 1990). The powers of regions were still limited at that time, their strategies needed to be “less conventional and more innovatory […] taking the form of a kind of town planning”, designating industrial areas or infrastructures and supporting social services as the rural locations of districts lacked adequate facilities (Brusco and Pezzini, 1990, pp. 154–156). In Emilia Romagna most of the work to establish the
network was undertaken at the local scale by trade associations such as the Confederazione Nazionale dell’Artigianato (CNA). These intermediaries raised awareness among professionals, they steered the flow of information by providing expertise, technical support and other educational services (Pike et al., 1990). This final aspect specifically recalls the traditional literature on intermediaries triggering processes of innovation, that will be later developed in the field of knowledge economies (den Hertog, 2000; Howells, 2006; Phelps, 2017).

Industrial districts were for a long time considered the place to nurture innovation and economic growth. For this reason, especially in the later studies on regional development, an extensive debate has spread on the role of institutions in enhancing agglomeration effects and districts’ resilience (Amin and Thrift, 1995; Raco, 1999; Storper, 1995). Traditional institutionalists like Amin & Thrift (1995), explained the crucial importance of networks and the emergence of new systems of trust relations at the local scale as a direct effect of globalization. They celebrated what they called ‘institutional thickness’ and the positive impact that can have on economic development. The original meaning of the definition applied to the density of the local institutional framework, later on critics have pointed out that it is instead the value of such institutions to be crucial (Farole et al., 2011). Innovative firms will tend to move to that milieu offering the best institutional framework for their settlement. Both readings imply that economic growth is shaped by institutional patterns and path dependencies (Amin, 1998) thus, both market trends and networks’ size or strengths can be explained by the contextual social conventions.
Positive approaches towards the role of institutions in regional development include the capability of local institutions in developing indigenous capacity to adapt to changes (Scott and Storper, 2003).

Traditional theorists of the Third Italy instead believed that formal institutions could not influence the creation of a district, as this process was dependent on some more informal local actors:

“Studies brought to light a range of precious resources that can be found in local communities such as: traditional craftsmanship, local banks that sustain growth, previously accumulated capital, good internal communication, infrastructures and links to external networks, education programs that target professional formation. [...] No district was instituted or governed by decree. This does not mean that politics have had no part in instigating growth within districts”. (Bagnasco, 2009, p. 226).

The reality stands in the middle. As stated by Hodgson (2003) institutions always operate on the basis of contextual social and cultural habits, though their intervention can stabilize an emergent economic process just like their evolution can trigger a change in the same contextual habits.

Similarly, the socio-economic model of the Third Italy finds its roots very deeply embedded in the Italian culture of crafts and its social capital structure (Dei Ottati, 1994). SMEs surely existed in those areas before the Third Italy was labelled and brought to global attention. However, the former would not have
flourished without the political support at the local scale and without a system of intermediaries consolidating the network. Storper (1995) emphasized the importance of ‘untraded interdependencies’ or relations of trusts between local institutions (both formal and informal) to shape regional development. The essential role of this network is particularly in determining any technological or organizational change; he used indeed the example of the Third Italy to show the role of this local behavioral support in a phase of industrial divide from mass production to flexible specialization (cf. Piore & Sabel (1984). Several scholars providing incremental contributions to agglomeration theory, confirmed Storper’s claims (Brusco and Pezzini, 1990; Gordon and McCann, 2000; Markusen, 1996).

Figure 2.4 The diagram from (Markusen, 1996) shows the way the different resilient types of clusters work, compared to the Italian case or the A. Marshallian Industrial District.
Those ‘untraded interdependencies’ (Storper, 1995), remained the distinguishing feature of the Third Italy throughout the following incremental contributions to agglomeration theory. Markusen (1996) used the ‘Italianate’ or ‘Marshallian industrial district’ to measure and compare the stickiness of the other emergent types of districts (the ‘Hub and Spoke’ and the ‘Satellite Platform district’) as shown in figure 2.1. In particular, she identified the support of local political institutions and the presence of a resilient local culture as the key for their endurance over time. Similarly, Gordon and McCann (2000) in their classification based on the type of relations between firms and location, referred to the Third Italy as the ‘Social Network’ model, characterized by intra-firms relations based on trust. This former type of district needs necessarily to rely on previous cultural and historical bases embedded in the related location, and again, the Italian Industrial district is addressed as the perfect example for it. Both Markusen (1996) and Gordon & McCann (2000) stressed the value of the complex system of local support either social or institutional as a necessary feature to elect the Italian industrial district as representative of the Marshallian model.

On the other hand, if policies would not have acknowledged districts granting more decisional power to the regions, the economic model of the “Made in Italy” manufacturing branding would not have thrived. Districts were effectively out of the governmental scope and system of subsidies until the late 1990s, once the debate on the Third Italy was well established and spread. Even trade unions did not have a role in their small scale production chains until the early 1990s (Brutti and Calistri, 1990). Effectively it is in 1991, that industrial districts
were formally acknowledged by the Italian government through the law 317/1991\textsuperscript{3}. This was one of the first dedicated policies in the European scenario and it was meant to support innovation - identified in the flexible manufacturing activities from the industrial districts - increasing the competitiveness of firms by a systemic approach.

The policy did not address interventions for the single firm but the system of local firms devolving powers to the regional authorities to support and enhance innovation. This was to be achieved by the creation of “local-specific public goods” e.g. cooperatives and consortiums of firms, business intermediaries and trade associations, logistic platforms, business development centres and training organizations. The law was meant to combine and coordinate bottom-up actions at the local level with regional strategies. At a time when industrial strategies were implemented by the central government, this framework granted for the first time specific intermediaries responsibilities to regional authorities. To make it operational, the leading agencies among each industrial district were supposed to organize themselves in local committees or consortiums to elaborate “district development plans”, composed of several projects; while the regions had to select the projects to be funded on the basis of periodical tenders. However, the Italian government did not provide enough

\textsuperscript{3} The law set some specific criteria to define and identify industrial districts. To be classified as a district an agglomeration of firms should first comply to one of the ‘local productive systems’ (Sistemi locali di lavoro) identified by ISTAT’s Census in 1991. A firm should then fit into the following criteria 1) index of manufacturing higher than 30% of the regional or national share 2) entrepreneurial density higher than the national average 3) index of specialization of 30% or higher compared to the national average in a specific sector 4) more than 30% of skilled labour force in the specialization sector 5) more than 50% of specialized SMEs in the specialization sector. The law was amended in 1999 (law 140/1999), widening the criteria to define the local systems of productivity, the required district specialization and the variety of firms included, both in terms of activity and size (Carminati, 2006).
funds afterwards to implement those actions, which - added to a lack of investments in research and development - triggered a slow decline of the model (Becattini, 2002).

A stagnating institutional framework can generate a lagging economic context. The excessive reliance on social embeddedness can determine in the long run economic disadvantages like increasing inequalities between industrialized and non-industrialized areas or the decline of regions that have not enough invested in R&D generating the so-called economic “lock-ins” (Becattini, 1991; Bianchi, 1998; Boschma, 2005b). The emergence of global markets and cities seriously put at stake the industrial district manufacturing model. Amin and Robins (1990) had already expressed their sceptical view on districts as a solution to the de-industrialisation led by post-Fordism. They argued that districts would have been just a temporary phase destined at some point either to be monopolized by the major firm in the area or to move the production to other world regions with cheaper labour costs. The following section will discuss evidence from the changes occurring in the Italian districts following the creation of global production channels at the beginning of the new century.

2.3 Incremental contributions to agglomeration theory and the transition towards a global market.

2.3.1 Failure, evolution and future of the districts

Studies on regional development became extremely popular and numerous especially at the beginning of the new century, as a result of the upheaval
imposed by the emergence of new global markets. The consequence was a revival of interest in localization and regional policies, mainly as a way to retain regional assets and diversities (Storper, 1995). This type of literature especially dealt with a specific conundrum offered by the development of the new communication technologies. On one side, the loss of importance of places suggested by the rise of informational capitalism (Castells, 2010) triggering the internationalization of firms (Basile et al., 2008) and on the other the defence of physical proximity and its importance for innovation (Boschma, 2005b; McCann, 2007) and to fight uneven regional development (Scott and Storper, 2003). Many studies have therefore looked at the consequences of globalization forces on the traditional milieu of industrial districts (Amin and Thrift, 1995; Scott and Storper, 2003; Simmie and Sennett, 1999).

The globalization of economic flows triggered an extension of agglomeration theory, widening the scope to global production networks and innovation (Archibugi and Iammarino, 1999; Atkinson and Ezell, 2012; Coe and Yeung, 2015) or to the way business institutions could recreate the same externalities of agglomeration economies at larger geographic scales (Phelps, 2008, 2000, 1992). These types of processes tried to emulate Silicon Valley’s technology cluster (Engel, 2015; Hall and Castells, 1994; Saxenian, 2006) rather than the Italian case. It was the generation of “the New Argonauts” described by Saxenian (2006): a class of entrepreneurs, which had trained in the global technology headquarters such as Silicon Valley and then founded their own companies in the techno poles and science parks of their own countries (e.g. Taiwan, Singapore or India) although maintaining professional linkages with
the previous global businesses or multinationals. This was most of all the moment when the word “district” was slowly replaced by that of “cluster” both in literature and on policy agendas (Martin and Sunley, 2003) with extensive discussions on the possibilities of creating new clusters from scratch in various different contexts (Fromhold-Eisebith and Eisebith, 2005). Although this research focuses on small businesses - for which Italy remained the most emblematic case study – it is still important to name the above studies, as the shift towards global economies stands as one of the reasons causing the decline of the pure Marshallian districts.

The globalization of the economy has blurred “the boundaries between local and global areas of production”, and caused a large debate about the future of industrial districts (Rullani, 2009, p. 643). At the beginning of the new century, following the emergence of the new communication technologies, scholars started to question the endurance of the relations of trust characterizing the industrial atmosphere of traditional district areas, and began to study their evolution into different economic structures (Becattini, 1991; De Marchi and Grandinetti, 2014). Only those targeting a high-end niche of luxury products - close to handcrafted manufacturing - managed to remain successfully in the market, keeping a model similar to the Marshallian one. With the emergence of global production networks and the internationalization of firms (Phelps and Waley, 2009), district areas have experienced a distinct period of crisis.

The new challenges imposed by globalization and the new technologies caused the decline of many traditional manufacturing areas, triggering within
literature the renewal of the debate around agglomerations of firms and local/regional development policies. Discussions on the institutional basis of agglomeration notwithstanding, the classic literature on urban economic agglomeration (e.g. Amin & Thrift 1992) contains important circularities (Phelps, 1992). Especially after the popularity of the theorization on clusters proposed by Porter (1998) and its wide reception among policy makers, scholars have critically questioned the possibility of artificially re-creating districts and reproducing their positive externalities [e.g. Martin & Sunley (2003)], interrogating the role that institutions might have in such processes (Fromhold-Eisebith and Eisebith, 2005; Rodríguez-Pose, 2013). Expansions of such debate have also analysed the implications for the planning world and the capacity of attracting investments (Phelps and Tewdwr-Jones, 1998).

Several evolutionary scenarios have been registered in different locations: both processes of offshoring to countries with lower labour cost and of shrinkage, questioning their endurance and resilience to market changes (Trigilia and Burroni, 2009). As predicted by Amin and Robins (1990), some districts lost their horizontal specialization, becoming vertically oriented with a major firm acquired – or starting to control – all the others: an example is provided by Luxottica in the glasses district of Belluno (Grandinetti and De Marchi, 2012). It has been observed that the leading enterprise was usually the one investing more on research, quality, and sustainability, in order to reach a closer interaction with consumers. In other words, those firms had observed a particular care toward project phases, product development and promotion and they intertwined connections with brands and distribution
channels, which allowed them to take the control of the whole product chain (Bianchi, 1998; Grandinetti and De Marchi, 2012). Among the failure experiences, an unusual example is the textile district of Prato, which has been entirely sold to Chinese stakeholders. They acquired entirely the textile factories on the verge of failure. Even though the district still exists, holding the same specialized textile production, those Chinese firms are now producing value added abroad (Dunford et al., 2013)

More often though, district areas have simply experienced a diversification of the activities turning into a more heterogeneous milieu. The loss of enterprises and jobs in the traditional specialized business of the district has been compensated by the development of other economic sectors, such as knowledge intensive business services (KIBS), tourism or the cultural industries (Grandinetti, 2011). A good example to explain the phenomenon is the silk, ties and foulard district in Como (Bottinelli and Pavione, 2011), or the cashmere district around Perugia with the well-known case of Brunello Cucinelli, an enterprise which led a regeneration strategy by settling in the village of Solomeo. In general, rural and industrial locations, have suffered the most from these market changes, as they could not count on tourism to compensate the decline of the traditional district activities. In this case, the shrinkage or the depopulation of the corresponding villages occurred. Cases like the Montappone and Massa Fermana hat district or the sprawled rural agglomerations of the outer suburbs from Veneto region (i.e. the Montebelluna shoe district) are good examples of this trend (Iommi 2013 cf. Belussi 2010).
The empirical evidence suggests that in this evolutionary pattern, the type of location hosting the district is almost as relevant as the related social tissue to determine the trajectory that the district area would follow. Although the successful district cases demonstrated durability by refocussing on a luxury and niche market sector, the most important difference was made by the location. While facing globalization issues, districts which had a high-quality settlement performed better than the rural ones because they were able to diversify the local economic fabric and recreate an environment similar to the inner urban tissue of a dense city (Sammarra and Belussi, 2006). In a similar way, Dunford and Greco (2006) tried to give an overview of the various regional development scenarios at the beginning of the new century assuming of being “after the Three Italies”, meaning after the decline of districts and of the associated model. The review of possible trajectories concluded arguing for increasing inequalities and an uneven regional development. Despite the practical decline of the original model of districts from the Third Italy, at the end of the 1990s new waves of regionalism were registered exactly as a reaction to the risks threatening regional assets (Storper, 1997).

Increasingly, in the last decade, the discussion on regional development has been intertwined with that of knowledge, innovation creation and capitalism evolution (Asheim and Coenen, 2006; Tomaney, 2014). Pike et al. (2006, p. 95) introduced the issue explaining that: “development is interpreted as the enhancement of the locality or region’s ability to produce, absorb and utilise innovation and knowledge through learning processes”. Since the time of districts, an “innovative milieu” was also a synonym for a flourishing economy
or at least of potential growth (Camagni, 1996). The continuous tensions between bottom-up and top-down approaches have, ever since the aftermath of WWII, shaped the debate on governance for regional development (Pike et al., 2006). Though the topic has become even more relevant after the new waves of regionalism prompted by the globalization of markets and more recently interpreted even at the city scale [see Phelps (2004) on the concept of “borrowed size”].

This discussion has ultimately stimulated a debate on an evolving scenario of capitalism (Asheim and Coenen, 2006). In the Fordist society, the main driver of urbanization for cities was industrialization (Weber, 1929) with heavy mass production as the economic model. Whilst in the post-Fordist era, the informational economy (Castells, 2010) was believed to influence urbanization forces and as a reaction districts became the economic model to enhance small-scale manufacturing (Asheim, 2000). At the stage of post-Fordist capitalism, the region became the key geographical unit and source for territorial development, finding a key example in the Third Italy (Storper, 1995). The second part of this chapter reviews the contemporary drivers of urbanization, identified in the cultural and creative industries following the framework of cognitive capitalism (Scott, 2008). Here the city becomes the geographical reference for which a new interpretative and economic model has yet to be defined.
2.3.2 A new wave of regionalism and creativity

The erosion of regional and national trades and of transport barriers brought deep changes in traditional manufacturing industry’s dynamics as well as in the related markets declaring the decline of the industrial district model. Nonetheless, as a theoretical consequence of globalization forces, a renewed interest in regional development was registered, with local diversities identified as a resource and a growth opportunity opposed to mass production and the crumbling Fordist ideals (Storper, 1995). The new extension of the global market allowed, on one side, firms inter-relations but it increased their competitiveness on the other, so that local and regional specialization acquired a social role for firms’ survival and distinction (Krugman, 1993b). These new regionalism trends interested scholars from different disciplines as well as planners and policy makers, leading to a mainstream use of some traditional principles from agglomeration theory as a supportive statement for many practical developments of urban regeneration strategies for abandoned lots of the city. Regional development became increasingly a global matter (Pike et al., 2017). However, the reuse of many urban post-industrial sites for cultural and creative activities and the increasing commodification of knowledge contents, ultimately has stimulated the emergence of a further and more comprehensive debate on the evolutionary phases of capitalism: the cognitive-cultural capitalism – or simply cognitive capitalism (Scott, 2008).

The aim of this second part of this literature review is to provide a similar account of the key features of cognitive capitalism as we did earlier for the Third Italy. Despite the geographical and apparently theoretical differences,
the two bodies of literature are linked as being one the natural follow up of the other. This is a story of urban regeneration and renewal of a post-industrial patrimony left behind by the changes occurring in global production chains (Lever, 1991). At the rise of the new century, urban warehouses, docks, and any other traditional industrial land or site made affordable by the loss of its primary function became naturally filled by artists and creative professionals seeking affordable rents (Mommaas, 2004). Among policy makers, creativity and culture became the buzz words to foster the renewal of former industrial areas of inner cities - deeply intertwined with the safeguarding of local identities (Florida, 2002; Jessop, 1997; Landry, 2000; Tepper, 2002). Ultimately, it would be reductive to talk just about creative economies, as this is only the beginning of a wider economic shift in capitalism for which a new suitable economic model has yet to be developed. Here, a review will be provided of the most salient steps that led to the emergence of the creative economy first and more recently of wider urban ecosystem of entrepreneurs or innovation hubs (Lee and Rodríguez-Pose, 2014), to understand the most recent drivers of economic growth in contemporary cities and its wider implications for capitalism.

The concept of “creative city” appeared in the late 1980s as a way of stimulating innovative thoughts regarding the functional renewal of some post-industrial areas in the post-Fordist city with the related array of policies (Landry and Bianchini, 1995). In 2004 UNESCO added creativity among the indicators for sustainable development and a Creative Cities Network (CCN) was created as an initiative to preserve local heritage and diversities. The cultural sector
became officially the leading engine to shape the appearance of many “fashion (or design, or simply creative) districts” or other similar developments on the local agenda of cities’ economic strategies around the world. An instance is the city of Antwerp, whose dockland area has been converted into a fashion hub (Martínez, 2007). This approach has raised a number of concerns, which lead to the controversial issue of the commercialization of culture. Creative cities’ strategies have indeed provided new layers of argumentation on gentrification triggered in the areas invested by these cultural policies, and the so-called ‘Bilbao effect’ (Plaza, 2006; Plaza and Haarich, 2015). Under the economic point of view, a controversial debate on the revival of manufacturing in the urban dimension has engaged geographers, economists and policy makers.

There is a range of material addressing creative and cultural clusters as an expansion to agglomeration theory and the related literature on industrial districts. Firstly Scott (1997, p. 323) shed light on the development of cultural economies as a product of the heterogeneity of cities and “one of the distinguishing characteristics of the contemporary urbanization”. While referring to the geography of culture, he identified the production of culture as a peculiarity of “localized clusters” opposed to the global network of its consumption. This has opened the path to a wider debate on clustering processes and the definition of cultural industry. The subject was brought to public attention by the works of Florida (2002) and Porter (1998). Porter opened the debate on clusters and the use of agglomerations of activities as a policy tool. Florida and its “creative class” sanctioned instead the shift of the
debate from “culture” to “creativity”, enlarging the set of activities acknowledged as the new economic foundation of certain contemporary cities.

Porter (1998, p. 199) defined clusters as: “a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities”. This definition substantially expanded the notion of agglomeration as it was conceived at the time of the industrial districts from the Third Italy. While an agglomeration needs to have a geographical connotation to be considered as such (Gordon and McCann, 2000; Marshall, 1920), here any reference to boundaries or a strictly related location is omitted. Therefore, any kind of context could be included in it. Cluster theory and the following developments (Porter, 2000) received several criticisms, especially among economic geographers, which considered Porter’s work as too broad and not spatially bounded (e.g. Martin and Sunley, 2003). However, his definition was positively welcomed among policy makers, paving the way to large possibilities of application in urban regeneration strategies: clusters became the new policy panacea (Martin and Sunley, 2003).

A similar and complementary story applies to Florida’s work on the creative class. The response among policy makers was enthusiastic and the influence on governance strategies remarkable. As a result “creative cities” or “creative clusters” labels spread all over the world to support regeneration strategies led by local governments (e.g. London, Antwerp, Ghent, Shanghai, Glasgow etc.; cf. UNESCO 2016). However, criticisms among scholars were extensive,
either pointing out the vagueness of the metrics put in place to assess creativity (e.g. Nathan, 2012, 2005) or - as originally theorized by Zukin (1982) and (1987) - the ways the process recalls traditional gentrification issues (Peck, 2005; Pratt, 2008a) with the consequent loss of place identity. However, the identification of policies targeting the creative industries with the attraction of gentrifiers is limiting. A better approach would be addressing a flaw in the relating system of planning governance focussing on the settlement of new creative activities (Markusen, 2006), but failing to control other variables such as real estate trends, rent prices or the most recent challenges to local economic development at the city level.

2.4 Cognitive-cultural capitalism: creative industries, urban revival and the new frontiers of economic growth and innovation creation.

2.4.1 Cognitive-cultural capitalism: a comprehensive umbrella for cultural industry, creative economy and new economy.

The rising interest in creativity and clusters is the result of the contemporary economic dynamics linked to the commercialization of culture. The shift of capitalism from an economy based on heavy industries and manufacturing to a more cultural industry imbued with cognitive contents is just another consequence of globalization and the new communication technologies. Yet, this sector remains quite undefined and volatile, as it is hard to classify with a traditional economic label or sector. The confusion in the terminology and the ambiguous use of “cultural industry” and “creative economy” reflect the main
issue of the difficult definition of the activities included in such a sector. The boundaries of the cultural industry are indeed difficult to identify, as it implies a heterogeneous milieu of innovative firms (Smith Maguire and Matthews, 2014). This section tackles this issue comparing categorizations proposed by several scholars.

Both Scott (2010) and Markusen et al. (2008) tried to fill this literature gap by proposing the conceptualization of a sample of activities acknowledged among the cultural industries. In particular, Markusen et al. (2008) denounces a lack of transparency in the use of data and in the related statistics employed for their assessment. Activities acknowledged as cultural are those directly involved in the production of social meaning in the form of texts and symbols (e.g. television, radio, cinema, newspapers, magazine and book publishing, music recording and publishing, advertising, performing arts, etc.). However, following an occupational criterion, Markusen et al. claim the exclusion of all professionals not leading any creative task even if employed by a cultural industry (e.g. all administrative staff, accountants, hospitality, etc.). Equally, the authors consider not strictly related to culture and therefore cut out all other professions producing intellectual contents in the scientific field (e.g. engineering, computing and education), which are instead included in most of the creative economy taxonomies [i.e. in Florida (2002)]. This approach can be now considered obsolete especially given the permeating presence of technology in the cultural field, causing the gradual muddle of cultural and creative economies. On the same trend, also Hesmondhalgh’s (2002) definition of cultural industry evolved throughout time, conforming with the
digitalization occurring within the sector, as registered by the various editions of the same author’s publication until 2013.

Other than this, a supplementary uncertainty in the use of terminology regarding the concepts of culture and creativity, often refers to the same type of activities. While Scott (2010) and Markusen et al. (2008) preferred to address the sector as ‘cultural industry’, both Hall (2000) and Hutton (2010) used the expression of ‘creative economy’. The former stressed the emergence of new communication technologies as well as of the progress made in the development of technological machineries and software and their influence on the evolution of this economic sector. In particular, Hutton (2010) gave a substantial contribution in the definition of which range of firms could be included in the sample and which features they share. He observed that with the recent progress in technology, this industry includes both goods production and services, combining cross-sectorial knowledge from computer graphics, web-design, technology production, high skilled software development and the communication industry (Hutton, 2010). The tendency towards a more diverse sample and the increasing influence of technologies – mixing the offer of services and products with the development of specific software – comes clearly across by comparing the list of activities acknowledged in the set by the different authors throughout time (see table 2.1).

Finally, in the last decade we have experienced the progressive replacement of “creativity” by “technology”, as testified by “tech cities” dismissing the
“creative city” brand and becoming the new tool for planning practitioners (e.g. London Tech City, La French Tech, New York Tech Valley, New Tech Seattle etc.). Foord (2012, p.1), while investigating the case of East London, right after the financial crisis of 2008, observed that firms engaging in “risky experimentations” performed better than all the traditional craft and creative industries. The author identifies the core of all those “self-organizing creative digital clusters” in those hybrid firms (ibid.) and their peculiar networks. This transition from ‘cultural’ to ‘creative’ and finally to ‘tech’ cities shows that these three fields are deeply intertwined. Boggs (2009) had suggested that if “the definitions of cultural industries and the creative economy are closely scrutinized, they are inconsistent” (pg. 1494) as it is impossible to deliver a binding definition of this sector. However, despite the limitations in narrowing down the sample the investigation of such firms is crucial to “enable researchers to discuss economic activities alleged to be replacing older extractive and manufacturing industries” (pg.1483). The study of the locational pattern of these activities is fundamental for understanding the geography of capitalism and its evolution as well as the contemporary dynamics of economic development.

The commodification of culture can be considered within the wider framework of capitalism and Allen J. Scott has provided a thorough supportive framework to it. Citing from Scott's (2008, pp. 65–66) definition of cognitive-cultural capitalism

“Much of the contemporary economy is being driven forward by key sectors like technology-intensive manufacturing, services of all
varieties (business, financial, personal, etc.), fashion-oriented neo-artisanal production, and cultural-products industries. These sectors by no means account for the totality of the capitalist production system at the present time, but they are assuredly at the leading edges of growth and innovation in the most economically advanced countries. Notwithstanding the evident heterogeneity of these sectors, they have all been deeply penetrated by digital technologies [...] employment relations have been subject to radical flexibilization and destabilization, thereby injecting high levels of precariousness into labour markets for workers at virtually all levels of skills and human capital formation. Also, project-oriented work based on shifting teams of individuals, each of whom brings distinctive skills and talents to the labour process, has become increasingly important.”

This definition offers solid ground for the activities, which are the object of this research as it takes into account the complexity of innovation and the hybridization of culture with technology.

Scott also points out the lack of references to the social embeddedness of creativity in most of the related study. The author links changes in the economic structure to those occurring in the dynamics and patterns of urbanization. Thus, cognitive-cultural capitalism is presented as the adequate “theoretical framework [to explain] the contemporary urbanization processes” (pg. 565). On the same trend, Pratt (2008b) has drawn attention to the implication of power in the cultural economy. The increasing interest of policy
makers in culture has to be valued in terms of the quantity of jobs and welfare that the sector can generate. Pratt also argued that globalization has generated more heterogeneity and diversity in culture, rather than a mass homogenization. Despite the digitalization of the world that made information quickly accessible to everyone everywhere, in any cultural industry the local dimension of places still matters *(ibidem, pg. 43)*.

This statement opens the path to a new debate on the location of the cognitive-cultural economy. Scott (2010) predicted that despite local and urban seeming two distinct scales they would increasingly intertwine with one another in the near future. Hutton (2010), referring to the network and the characteristics of these firms, affirms that the urban dimension of metropolis is the only place in which a profitable balance between global and local can occur. The same point of view is also shared by Pratt (2008b) who points out the singularity of the geography of the cultural economy “that is strongly […] articulated in urban areas in the developed world” (pg.47). He stipulates reason for this location in the necessity of proximity to the market scene due to the close tie between consumption and production that regulates cultural processes. The next section analyses current debates on the role of cities and the implications of an urban settlement for the development of contemporary innovative firms in the cognitive-cultural field.
<table>
<thead>
<tr>
<th>CULTURAL INDUSTRY</th>
<th>ACTIVITIES AKNOWLEGED AS PART OF THE INDUSTRY</th>
</tr>
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<tbody>
<tr>
<td>MARKUSEN et al. (2008) Reworked</td>
<td>Architects except Naval, Artists and related workers, Designers, Actors Producers and directors, Dancer and Choreographers, Musicians singers and related workers, Writers and Authors, Photographers, Religious organizations activities and services, Sports and related workers, Media and communications workers (editors, technical writers, journalists, announcers).</td>
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Table 2.1 - The table compares the different attempts to build a sample of “creative” activities respectively from Markusen et al. (2008), Scott (2010), Hall (2010) and Hutton (2010). The chronological order reflects the emergence of technology within the listed activities.
2.4.2 Twenty-first century cities and the revival of urban economies. The locational patterns of a geographical shift of small-scale innovation: from rural to urban.

This chapter has hitherto assessed the implications of the globalization of markets and trades in terms of policy trends and economic changes, however, these major economic shifts have also led to a re-conceptualization of cities. From the late 1990s and for the following decade, economic geographers had lost interest in cities, shifting their attention towards global production networks (Amin and Thrift, 1992; Coe and Yeung, 2015) and technological clusters or techno poles following the style of Silicon Valley (Amin and Thrift, 2002; Hall and Castells, 1994; Miao et al., 2015; Pratt, 2000). In parallel, the debate on creative economies has instead triggered the revival of traditional ideas from Jacobs (1961) and Hoover and Vernon (1959) stating the importance of face-to-face contacts in processes of innovation. The revival of inner city manufacturing and local development measures became important to regenerate post-Fordist heritage within cities (Duranton and Puga, 2001; Hutton, 2010; Proscio and Grogan, 2000). Moreover, the general downturn, occurring after the financial crisis of 2008, has further enhanced the role of cities and urban economies, widening the debate on their capacity to attract highly valued human capital (Glaeser, 2011; Storper and Scott, 2009), especially as a way of contrasting dysfunctional national economies (Barber, 2013; Katz and Bradley, 2013). This section intends to review and expand on the key conceptual steps of this urban renaissance.
At the end of the last century, when new global economic challenges arose triggering the decline of the traditional district model, cities were not yet in the same foreground position that they occupy nowadays among literature. The term ‘New economy’ was first used by Charles P. Alexander (Time Magazine, 30 May 1983) to designate the transaction from a traditional heavy and manufacturing based economy to a new knowledge-based economy shaped by the development of new communication and information technologies. During the 1990s scholars have reviewed this transition in a very enthusiastic way, pointing out the benefits of the computer era and the way it would have fostered remote working at the expense of face-to-face contact (Gordon, 2000; Toffler, 1980). Scholars have reached awareness of being in a post-industrial society (Bell, 1973). The American Post-Modern approach to the city (Soja, 2000) and consistent studies on industrial decentralization and manufacturing relocation endorsed the argument of the loss of importance of places (Scott, 1984, 1983a, 1983b, 1982). As hinted in section 2.3.1, Castells (2010) in his theorization on the ‘informational age’ referred to the creation of a ‘space of flows’ allowing new dimensions for people interactions thanks to the arrival of the new communication technologies. Other than the implications for regional development that we have analysed in the previous section, the possibility to overcome spatial distances also raised a debate on the decline of the traditional role of the city (Glaeser, 1998; Pratt, 2000).

Despite the perspectives offered by the new communication technologies, the conclusions that several scholars reached was that places and in particular cities were still relevant for innovation processes where face-to-face contacts
still matter (Hall, 2003; McCann, 2007; Morgan, 2004). In particular, Hall (2003) highlighted that the new telecommunications acted as a stimulus to people mobility and flexibility rather than as an encouragement to be static and work remotely. In this sense, digital tools cannot replace face-to-face contact and cities confirm their ‘urban glue’ role. In the description of this urban transition, Peter Hall also stressed the value of the cultural economy and the related social infrastructures, as a new efficient means to shape the built environment as opposed to the traditional construction industry approach (Hall 2000).

Meanwhile, the deindustrialization of the post-Fordist era raised the issue of the re-functionalization of the post-industrial heritage in many cities of the world (Lever, 1991). The debate on creative and cultural industries and their role in the regeneration of such parts of the cities contributed to bringing attention back to urban centres, changing the common belief on the subject⁴. Among the others, Hutton (2010) referred to the ‘inner city’ as the place in which global and local interact linking the volatile processes of the ‘New Economy’ with other more traditional activities. Though the crucial contribution to the expansion of the debate belongs to Scott (1997), who first identified the cultural industries as the contemporary drivers of urbanization. He then expanded the notion by developing the idea of cognitive-cultural capitalism, now shaping the urban economies of our cities (Scott, 2014, 2008, 2007).

⁴ Hall (2000) also argues the necessity of a new theory of location, with an update of Weber, Christaller and Losh’s contributions. This would have to take into account the global changes occurring in the meantime: the globalization of the markets, the new communication technologies and the new economical geography imposed by the constitution of the EU (Hall, 2003).
At the start of the new century a revival of Jacobs’s (1961) social reading of the American post-industrial city was experienced all over the world. Those ideas were complemented by a new definition of global cities advocated by Sassen (2001). The former refers to the “global city” as a central hub in the global flows of information and capitals by analysing the different types of relations within it. Recalling the change of scale imposed by the development of information technologies foreseen by Hall (2003), Sassen describes the economic activities engendered by the globalization of trades as:

“The mix of firms, talents and expertise from a broad range of specialized fields makes a certain type of urban environment function as an information centre. Being in a city becomes synonymous with being in an extremely intense and dense information loop” thus, global city’s activities are subjected to agglomeration economies (Sassen, 2005, p. 29).

However, according to the author there is still a gap to cover in the understanding of the contemporary urban economy, requiring an update of the traditional key concepts of the agglomeration theory.

Following this trend and leveraging on principles from the so-called ‘New Economic Geography’ (Krugman, 1998) a series of cities’ enthusiasts like Glaeser (2011) kick-started an even stronger urban revival by optimistically celebrating the triumph of urban centres over rural environments. He celebrated cities as a place fostering proximity among highly skilled humans and thereby leading contemporary economic growth processes. His argument
mainly consisted of pointing out how urbanization rates of certain cities like New York or San Francisco have been steadily rising since the nineteenth century, in spite of the increase in real estate prices, showing how inner city locations are dramatically important to foster human contacts (Glaeser, 2011). Initial research in the American context showed the disconnection of urbanization trends from the size of metropolises’ agglomerations, assuming instead as a discriminant the size of their population. This consideration led first to a theorization on the ‘consumer city’ (Glaeser, 2001) and then to the ‘triumph of the city’, supported by the urban offer of amenities for consumers and a highly skilled labour force. However, Glaeser’s urban enthusiasm also found fertile ground in accordance with the worldwide success of the ‘creative class’ by Florida and the theorization on creative clusters derived from Porter.

A complementary debate in human geography investigated labour flows and the mobility of skilled professionals, highlighting the way they influence contemporary urbanization trends and reversing Weber’s theorization on industrialization as a main driver for it. Some scholars particularly tackled creative professionals (Storper and Scott, 2009, p. 148) concluding that places can contribute in attracting skilled labour by providing the right amenities for them:

“Places that can attract workers with high levels of human capital […] will grow with special rapidity because of the entrepreneurial,

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5 In the United States from 1970 to 1990 metropolitan areas with over a million inhabitants registered a growing share of population from 41 to 48.1 per cent (Glaeser, 1998).
creative and innovative energies that these workers carry with them”.

Especially stemming from the success of Florida’s and Porter’s theories is the development of urban policies fostering the creative economy in order to make cities more appealing for “creative people” (Landry, 2000; Peck, 2005). “Culture is now seen as the magic substitute for all the lost factories and warehouses, [...] making the city more attractive to mobile capital and mobile professional workers” (Hall, 2000, p. 640). Moretti (2012) looked at the migrations of skilled jobs in the USA context, underlining the increasing inequalities that those flows have implied in the different areas, with wages generally higher in all economic sectors where the concentration of skilled labour was higher. Those areas corresponded to the most successful urban centres.

The conception of global cities implied the concentration of economic activities in certain specific parts of the world, triggering increasing inequalities at the national scale. A number of more sceptical studies were generated, claiming that the growing pressure on metropolitan areas needs rather to be read as a signal of a dysfunctional national economy (Katz and Bradley, 2013). Similar considerations apply to the increasingly central role of mayors on the international scene (Barber, 2013). Even Florida (2017) has recently reconsidered his passionate argument over the ‘creative class’, by stating that the same forces generating growth in our cities are also triggering new challenges such us: housing crisis, gentrification or social inequalities (cf. Nathan, 2005). It is exactly in this context that innovative sectors could appear
in the economic fabric of a certain place as a rupture with a past of failures (Bathelt and Boggs, 2003).

We can nevertheless take a major message from this urban centrality and Glaeser’s optimism: proximity in the twenty-first century is intended in its social meaning and cities bring people and ideas closer. The concept was underlined also by Hall (2003) who speculated that technologies could substitute spatial proximity, but face-to-face contacts cannot be recreated or replaced. Agglomeration effects and externalities also recur in the coexistence in the same place of a diverse range of skilled professionals and activities appealing to the cultural industry, for which the city is believed to be the natural geographical settlement (Pratt, 2008b). This urban revival together with the digital and entrepreneurial features of this developing economy recalls Polanyi’s (1967) concept of tacit knowledge, which is necessary for creative activities but difficult to exchange through distance or traded flows (differently from the codified knowledge required by scientific matters). Above all though, the diversity offered by cities as well as the way they foster professional linkages and spillovers are mostly relevant for processes of innovation creation.

Already Jacobs (1969) saw the role of urban agglomerations in pacing innovation and shaping development due to the effects of diversity. However, among the classical literature in economics, the origins of these speculations are located in Hoover and Vernon’s (1959) urban incubator idea. They studied the mobility patterns of jobs in New York and highlighted how central New York
pursued throughout the years a key role in hosting innovative activities despite the low affordability of land that caused the relocation of traditional manufacturing industry in the outer suburbs. Moreover, those urban productions were more precious than the others as they were produced in small-scale. Then, an increase in the demand and an enlargement of the production would have entailed relocation outside the urban core. An initial urban settlement allows firms to benefit from the necessary economic and social linkages in order to test the prototypes. Proximity, in the logistic and spatial meaning of the term (i.e. shared infrastructures or skilled labour force in the traditional meaning), is not that important in a first phase of research and development (R&D). It is only in a later stage, after the identification of the ideal production process (or service offer), that firms can relocate in an outer location if they wish to shift from a small scale to a mass production.

Duranton and Puga (2001) rephrased Hoover and Vernon’s idea by claiming that big cities act as a “nursery” for new activities, thus this is one of the main reasons for them to settle in inner city locations:

“A young firm needs to experiment to realize its full potential […] a diversified city allows them to do so without costly relocation after each trial. In this sense, diversified cities act as a ‘nursery’ for firms” (pg. 1455).

This assumption underlines the peculiarities of innovative firms, which display different locational requirements from traditional manufacturing and large-scale productions. They are engaged in testing innovative ideas on the market, their initial assets are low, and they need cheap means and spaces in order to face the initial trial stage of their activities, so the possibilities offered by the
urban dimension at the initial stage are more valuable than any other logistic arrangement.

Discussions on the heterogeneity of cities’ activities and the way they foster the burst of innovative businesses are extensive (Feldman and Audretsch, 1999). Simmie and Sennett (1999) claimed that “innovative clusters are characterized more by their heterogeneity than their similarity”, so they benefit from urbanization economies. Those reflections on urban vertically integrated environments fostering innovation stimulated a discussion on the new typologies of clusters of innovative enterprises based on the idea of social proximity (Boschma, 2005b). Already Markusen (1996) had claimed the existence of such agglomerations corresponding to: “cities at the top of their national urban hierarchies which are also international trading nodes” (pg. 89). Here, externalities are generated by the participation in both national and international markets, the proximity of international transport, and the competition engendered by cohabitation with other innovative firms. In this context it is relevant to mention the concepts of ‘variety’ and the shift from Marshallian externalities to Urbanization and/or Jacobs externalities (Frenken et al., 2007; Neffke et al., 2008).

Based on this expansion of the definitions of externalities and proximity, a number of more recent studies have proved that face-to-face contacts are crucial to establish a business, especially in its initial stages (Bathelt et al., 2004; Bathelt and Turi, 2011) and that it is easier to establish them in an urban area (Storper and Venables, 2004). Bathelt & Turi (2011) emphasized this
duality, building a comparison with local and global network. Both are simultaneously necessary and deeply intertwined: the first is useful to test the response to and the needs of a product locally, although this level of knowledge needs to be continuously enriched by comparison with the global scale. Global networks are virtually oriented for obvious geographical reasons. Codified knowledge can be entrusted by traded flows while tacit knowledge is generally associated with the local scale. Bathelt et al. (2004) demonstrated that the cooperation of “global-pipelines of trans-national linkages” (or those virtual and global information channels) with the local buzz is vital to build a stronger innovative cluster.

From here the belief developed that even dedicated international events, conferences or trade fairs could be considered as temporary clusters (Bathelt et al., 2004; Ramírez-Pasillas, 2008). During such events, professionals can physically show their prototypes, compare their findings and share knowledge with other experts in the field from all over the world, building professional and knowledge spillovers. International events carry important implications for urban economies, being a tool to help the establishment of a certain group of activities in a given location (Anand and Watson, 2004; Power and Jansson, 2008). These temporary clusters are particularly relevant in the contemporary ecosystems of urban innovative entrepreneurs (see section 2.5).

The common thread in the evolutionary path pictured until now, seems to be the externalities generated by proximity. The horizontally specialized Marshallian industrial districts profited from spatial proximity and its logistic
reasons and externalities. Under the effect of globalization trends, we have switched to vertically integrated urban clusters profiting from social proximity (Harrison, 1992). Proximity is nowadays intended in terms of face-to-face contacts and critical exchanges of knowledge and skills between professionals. Despite the geographical scale of intra-firms networks - widened by globalization and new communication technologies - the urban buzz allows innovative firms to gain knowledge of their competitors. The dynamism perceived within cities is the necessary environment for the coexistence of innovations, creative economy and entrepreneurial ventures (Storper & Venables 2004).

2.5 The new emerging trends and literature gaps: Makers Movement, start-ups, co-working spaces and the new urban ecosystems of entrepreneurs.

2.5.1 The Makers Movement

The discussion on the re-shaping of urban economies and the emergence of cognitive-cultural capitalism implies the description of the peculiarities of the contemporary actors of urban manufacturing and innovative entrepreneurs e.g. Makers Movement and innovative start-ups. This section goes through the last items on the research agendas in the field of urban economies and trends, investigating changes occurring in the working spaces, the professional figures and the networks characterizing the emergent urban economic sector. This chapter has previously explored how globalization trends have shifted the geographical attention from industrial districts first to science parks, due to the
rise of the knowledge economy, and more recently towards cities, under the influence of creative economies and the new entrepreneurial challenges. As a result, cities are increasingly becoming the centre for innovation and the focal point of ‘industry 4.0’ or ‘distributed manufacturing’ (Brettel et al., 2014; Srai et al., 2016; Weyer et al., 2015).

This recent industrial shift in the framework of cognitive-cultural capitalism recalls and follows two other stepping moments triggering important conceptual changes in the literature on economic geography: the ‘second industrial divide’ and the ‘informational age’. Respectively they were tackled by Piore and Sabel (1984) and Castells (2010). The district milieu and the shift from mass production (or the ‘industry 2.0’) to flexible specialization were the drivers of ‘the second industrial divide’, while ‘Industry 3.0’, shaped by the unbounded possibilities offered by new communication technologies, opened up the path to the era of the globalization of markets and trades. The contemporary ‘industry 4.0’ joins instead cyber and physical systems and it is accessible to a wider audience (Lasi et al., 2014). The democratization of technology led by the Makers Movement is an example of its entrance in small urban manufacturing productions. The entrepreneurial ecosystems of our cities are evolving with new important implications for agglomeration theory.

The Makers Movement finds its roots in the United States in San Francisco Bay area starting with the launch of the first issue of Make magazine by Dale Dougherty in January 2005. The periodical was born to give exposure to a group of Do It Yourself (DIY) enthusiasts in the field of digital fabrication:
hobbyists and a small portion of professionals – mainly free-lancers or entrepreneurs - who shared a passion for making things while experimenting with new machinery. This was followed the year after by the organization of the first Maker Faire in San Mateo: an event gathering the members of this community to share ideas and prototypes. Given its success, it became a reproducible branded event. The community then grew to have a global presence. Though in Europe, makers embody the peculiarities of a new emerging entrepreneurial class where creativity, technology and innovation are blending - being characterized by low barriers to entry and strongly embedded in social networks (Gertner and Mack, 2017).

Anderson (2012) provided an explanatory excursus of the rise of makers by defining the entrance of high-technology activities within the manufacturing sector as ‘the new industrial revolution’. Over the last decade, laser cutters and 3D printers entered the productive chain of some traditional making professions, opening new perspectives in the debate on local economic development (Van Holm, 2017) in ways that are reminiscent of earlier discussions on a second industrial divide (Piore and Sabel, 1984). Here, makers stand as an updated version of traditional artisans: their creations could be as unique even if produced by new technological means requiring significant skills in software coding, design and information and communication technologies. This might profoundly change the productive chain of selected goods allowing for customization, a whole new world of perspectives in the craft of prototypes as well as the use of new materials (Birtchnell and Urry, 2016).
Characterized by low initial capital requirements but high risks of entrepreneurship these activities share some common features in the way they are usually set up and structured. While the implications of digital fabrication techniques for the labour market are still under researched, literature has begun to be more engaged in the analysis of their working spaces. Maker space are equipped with machinery (e.g. 3D printers, mills and laser cutters, etc.) that is shared by the users, cutting the cost of buying tools and allowing for further experimentation without wasting resources. Fab-labs in particular are a network of spaces developed and partnered by MIT equipped with a basic set of tools and inserted in a worldwide network. If the initial choice of Shared Service Accommodations (SSAs) is a matter of affordability, as a reaction to the general downturn (Ferm, 2014), we should not underestimate the social value of these spaces (Merkel, 2015; Schmidt and Brinks, 2017).

Makers could work remotely, though they appear to prefer the networking and trust-building opportunities provided by co-working spaces (Spinuzzi, 2012). Here the possibility of sharing knowledge and skills is still the added value. The current literature also briefly acknowledges the role held by those spaces allowing the activation of important learning processes (Sheridan et al., 2014) as well as the cross-fertilization of “global pipelines of knowledge” and local innovation dynamics offered by their social proximity (Capdevila, 2014). Ultimately, the same spillovers and externalities found in traditional agglomerations can be found at a smaller scale in co-working spaces (Capdevila, 2013; Moriset, 2014). On the wider urban scale instead, it is up to
temporary clusters like Maker Faire to provide some of the additional ‘buzz’
found in such spaces (Bathelt and Turi, 2011). Especially when we deal with
rising economic sectors it is in temporary clusters, such as fairs and other
similar events, where network establishments and knowledge spillovers are
accelerated by recreating the same positive conditions found in the industrial
district model (cf. Marshall, 1920). As discussed in section 2.4.2 in events like
Maker Faire, social proximity replaces the spatial one of the traditional
specialized districts (Bathelt et al., 2004; Bathelt and Turi, 2011).

The sharing attitude of makers recurs also in economic initiatives and learning
processes and justifies their urban location. Given the era of austerity with the
limited initial capitals and the risky trial phase of their innovative businesses, it
is not a wonder that crowd-funding has often replaced other forms of micro-
finance (Pais et al., 2014). Here I note that these ideas are valuable only if
integrated with an appreciation of the subtly altered urban context of social and
political transformations (Bathelt and Boggs, 2003), new technologies and
forms of communication that influence contemporary professional habits and
locational preferences of entrepreneurs (Capdevila, 2015; Nascimento and
Pólvora, 2016). Despite the promises of innovative technologies, sociability
and physical contacts are still important for the exchange of information and
knowledge (cf. Foord, 2013, p. 5 on ‘noisy networks’). The Makers Movement
might seem a very peculiar case, although it offers a valuable window of
observation on the new urban entrepreneurial trends. Their investigation
grants a broader understanding of how the contemporary urban economy is
changing at the junction between physical and digital networks.
At first glance this new entrepreneurial group might be interpreted through familiar ideas regarding urban economic agglomeration - albeit these have been recast in terms of the emergence of cultural and creative industries (Hall, 2000; Markusen et al., 2008; Scott, 2010). Makers and the contemporary start-uppers usually have higher education qualifications than those “individuals endowed with high levels of human capital” (p.147) described by Scott and Storper (2009). Even though the industry 4.0 might still be at its initial stage, we could argue that the roots of this delineating urban economy could be already sought in Florida’s (2002) ‘creative class’ and its famous ‘three Ts’ (standing for Technology, Talent and Tolerance). Though, more than a ‘class of creative talents’, makers – or the new generation of digital artisans - are most of all entrepreneurs and inventors of themselves. Naturally stemming from the creative economy with which their features seem to overlap, ultimately it is the wider framework of cognitive-cultural capitalism, provided by Scott, that seems to offer the most comprehensive way to tackle those changes in the urban labour pool and the basis to investigate the new urban entrepreneurial ecosystems.

The resurgence of the figure of the entrepreneur as the key professional in a transitional economic moment following a global downturn, recalls Schumpeter’s (1942, pp. 82–85) idea of ‘creative destruction’ and ‘Business Cycles’. According to the famous economist, only entrepreneurs are able to perturb the stability of economic cycles (consisting in a sequence of recession and upward phases), determining changes in a crisis period and bringing
innovation and growth. Similarly on the urban side, literature had shown a
cyclical string in the re-industrialization of cities during the nineteenth century
followed by an industrial decentralization brought by the post-Fordism during
the twentieth century (Scott, 1983a). Nowadays following a new global
downturn, a shift of innovative activities in the inner urban is observable anew.
Small-scale production, the mixed offer of products and services, the necessity
of testing new ideas and processes to find a new stability all suggest the
starting point of a new business cycle following Schumpeter’s theorization.

2.5.2 The new shared working spaces

The challenges emerging in the urban economies of cities, the increasing
number of free-lance professionals and the democratization of innovation and
technologies offered by the Makers Movement are changing the habits of
contemporary entrepreneurs including their working spaces. SSAs or co-
working spaces (CWSs) of different typologies are emerging in many cities of
the world as the preferred workspaces of the contemporary entrepreneurial
ecosystem (Merkel, 2015). Starting as facilities facilitating the creative
economy and its natural necessity of face-to-face interactions (Moriset, 2014;
Pratt, 2008b), the many different typologies of CWSs are now relevant for start-
ups and innovative business in urban areas. Given its newness, literature on
this topic is still quite limited and not holistic in scope. Previous research
usually offers a fragmented view, focusing separately on the different actors
and generally lacking an all-round perspective.
In the specific case of CWSs, studies have looked first at the way they have replaced cafés as ‘third places’ in the locational choice of many entrepreneurs (Brown, 2017; Moriset, 2014; Spinuzzi, 2012). At the early stage of the proliferation of CWSs, those studies intended to explain why creative or even digital professionals chose to concentrate in this new space typology instead of undertaking remote-working from home or a ‘third place’ (Oldenburg, 1989).

Although these people could work remotely as “lone eagles” from their houses (or from ‘third places’ such as cafés), they prefer the networking opportunities given by large urban areas and the physical interactions with other professionals that co-working spaces (CWS) can offer (Sassatelli, 2007). Therefore, CWSs avoid alienation and allow for flexibility with a distinction between personal life and working spaces (Spinuzzi, 2012). This research focuses on proving that face-to-face interactions and social proximity still matter even for digitally-based businesses (Bathelt and Turi, 2011; cf. Storper and Venables, 2004) and they could be maximized within CWSs (e.g. Spinuzzi, 2015).

Certain scholars concentrated on the way the new working-spaces allow the cross fertilization between global and local pipelines of knowledge (Capdevila, 2015; Schmidt et al., 2017 referring to the so-called ‘clusters of knowledge’ already analysed by Bathelt et al., 2004). While some others have observed the activation of knowledge spillovers created by a diverse group of professionals sharing the same office space (Boschma, 2005b; Parrino, 2015). Overall, those studies mainly focussed on the sociological implications of such facilities in accommodating the needs of contemporary freelancers.
Following the aforementioned debate, such spaces have gradually started to be associated with processes of innovation creation (Schmidt et al., 2015). This tendency was also supported by the emergence of the Maker Movement (Dougherty, 2012; Hatch, 2013), which has contributed to the multiplication of the different typologies of existing shared workspaces. In this regard, literature has witnessed a shift towards the examination of the different dynamics activated by the various spaces and target users (Kojo and Nenonen, 2016; Pais, 2013; Sheridan et al., 2014; Toombs and Bardzell, 2014). In the specific case of maker spaces, scholars have highlighted the educational role played by such facilities in stimulating a revival of manufacturing and entrepreneurship (Nascimento and Pólvora, 2016; Sheridan et al., 2014).

As a recent phenomenon, investigations of makers as entrepreneurial drivers and the wider geographical implications of their locational preferences are still quite limited. Existing studies have looked at these working spaces mainly implying an urban environment as a settlement (e.g. Capdevila, 2014; Schmidt et al., 2015). More recent studies have started exploring the entrepreneurial orientation of such spaces and their role in the surrounding socio-economic context (Gertner and Mack, 2017; van Holm, 2015; Wang and Loo, 2017). Very few, for now, are approaching the related issue of quantifying and describing the effects on the urban economy (Wolf-Powers et al., 2017) or local development (Van Holm, 2017).
In particular, van Holm (2017) has identified the key contributions brought by maker spaces to the corresponding local economy in Georgia as: an educational role encouraging entrepreneurship, support, services and training directed to small enterprises, and a contribution to new job creation. Similarly, Wolf-Powers et al. (2017) provides a qualitative study of the different typologies of maker firms assessing their impact in the relating urban economies. Settled in the USA context, the study has highlighted the attachment that makers have to their location and the existence of “a robust set of intermediary firms and organizations, or maker-enabling entrepreneurs, that address the challenges makers face” (2017, p. 370). This study lays the groundwork for a discussion on the intermediary role of CWSs in the contemporary process of local development especially at the city scale (cf. Howells, 2006). However, this recent literature mainly tackles maker spaces, excluding the other typologies of CWSs (including start-up incubators), which might equally contribute to processes of local and regional development.

In the planning literature, there is an almost complete lack of studies exploring the way those spaces interfere with the contemporary processes of urban regeneration and urbanization. Studies conducted from a real estate point of view are also sparse; they focus on the boom of CWSs as an affordable reaction to increasing office costs in times of austerity (e.g. Ferm, 2014), discussing pros and cons of having a dedicated planning regulation. Ultimately, making CWSs a commercial product could easily lead to increasing rental costs and undermine their supportive role for innovative small businesses just like in other ‘tech’ or ‘creative’ cities’ experiences (Nathan and
In the last decades, the debate on ‘institutional thickness’ and regional development has been extensive (Amin and Thrift, 1995; Raco, 1998; Rodríguez-Pose, 2013; Tomaney, 2014). Discussions on the traditional dynamics of agglomeration and cluster creation – even if temporary – contain important circularities (Phelps, 1992). In particular, the new challenges offered to urban economies as represented by makers and start-uppers leave open a debate questioning top-down interventions as a way to galvanise bottom-up phenomena (institutions as cause) or whether they are largely unnecessary and even counterproductive (institutions as effect). In the wider framework of an evolutionary tail of capitalism - with the increasing inclusion of knowledge and cultural contents in contemporary economic dynamics - the attention has
more recently further shifted from clusters to processes of innovation creation and entrepreneurial support.

At the start of the new millennium, the attention among policy makers shifted from industrial districts and traditional manufacturing to the attraction of innovation. As highlighted in section 2.3.2, it was a direct consequence of the emergence of a global economy, triggering a wave of ‘new regionalism’ (Storper, 1997) as a strategy to retain regional development and to contrast the decline of certain district areas (cf. De Marchi and Grandinetti, 2014). On the other side, economic policies shifted attention towards global innovations and the internationalization of firms in technological districts with the establishment of techno-poles and collaborations with universities and research centres (Archibugi and Iammarino, 1999; Miao et al., 2015).

Most of the late 1990s and the early 2000s have been spent trying to recreate the economic spillovers of industrial districts in many suburban areas of the world (Hall and Castells, 1994; Miao et al., 2015). In Italy within the same period, regions - with their renovated powers - stopped concentrating on districts, developing new dedicated policies targeting more explicitly SMEs internationalization, innovation and technology. However, this approach imposed an even bigger burden on the public sector from increasing infrastructural costs. The place-less scenario and the enormous requirement of public spending - to both set up and maintain them - soon proved the techno-poles experiences to be less than successful, especially in the context where traditional corporate jobs and public welfare or social security are struggling.
In Italy, there is evidence for several of these experiences going wrong: *Tecnopolo Tiburtino* and that of *Castel Romano* in Rome or *Città della Scienza* in Naples. On the planning side, the running of a Silicon Valley imitation has been reflected in a shift from ‘creative cities’ to ‘tech cities’ as a tool for urban regeneration [e.g. London Tech city (Foord, 2013)].

Scholars have tried to study and predict the main factors determining innovation concentrations in certain areas in relation to the institutional framework. Examples of such studies include the investigation of the “innovation capacity” of a place based on public R&D expenses (Rodríguez-Pose and Crescenzi, 2008), the attraction of human capital (Crescenzi et al., 2007; Rodríguez-Pose and Crescenzi, 2008) or vice versa the way policies should help cutting the barriers presented to innovation (D'Este et al., 2012).

By and large, social capital and face-to-face interactions are still believed to be one of the main drivers of innovation and knowledge spillovers, especially in the Italian framework (Crescenzi et al., 2013; Inkpen and Tsang, 2005). Although this is particularly true also for start-ups needing to test their business on the market (Witt, 2004). In section 2.4.2, we have seen its geographical implications, electing urban areas as the preferential locations for small innovative businesses. In terms of institutional implications, the importance of those relations of trust brings about the emergence of a series of intermediaries mediating between professionals and formal institutions.

In an institutional analysis of regional development and processes of innovation or even cluster creation a certain number of scholars has therefore
looked at the role of intermediaries (Belussi, 2010). This blend of formal and informal institutions, together with the increasing knowledge contents permeating businesses was originally defined by Thrift (1997) as ‘the rise of soft-capitalism’, entailing some wider structural changes in governance and government with margins for bottom-up, or self-regulated, processes of innovation. From here, the discussion around innovation processes has also implied the study of mediators and other “soft” institutions. In innovation processes the word innovation intermediary is used to denote a range of organizations including brokers, third parties and agencies that are involved in supporting the innovation process (Howells, 2006), which includes among others especially service based activities or KIBS (den Hertog, 2000). Similarly, within the cognitive-cultural economy intermediaries hold the task of “speeding-up capital circulation” (Phelps, 2017, p. 232). When looking at the connected process of regeneration associated to the contemporary urban economy it becomes therefore important to take into account the so-called ‘non-elected’ institutions liaising with the local enabling communities (Raco, 2002). In the Italian context, it would correspond to the investigation of the role of the new informal institutions and actors of innovation.

More recently, the main goal of regional and economic development has become sustaining entrepreneurship (Hague et al., 2011). The positive role of institutions in regional development has also been used to justify the increasingly place-based policy frameworks, used by the European Union in the last decades to tackle the governmental differences among the various member states (Tomaney, 2014). The 2010s saw the revival of place-based
policies (Barca et al., 2012) regulating the allocation of EU structural funds (i.e. Horizon 2020; The Entrepreneurship 2020 Action Plan, European Cohesion Policy). Regions are responsible for triggering new economic growth, modernization and employment investment on R&D. The key word is still 'innovation' but the attention of regional policies has now shifted towards ICT, digital technologies, start-ups and entrepreneurs after an appraisal of the regional resources and yet in synergy with the local research centres and the leader enterprises on the territory (see: Smart Specialization Strategy or RIS3).

The support given to new entrepreneurial ecosystems has recalled the traditional idea of ‘creative destruction’ triggered by entrepreneurs as theorized by Schumpeter (1942), questioning as a result the role that institutions might or might not have in those processes to trigger effective economic growth in one place. Literature has looked at the process of innovation creation in different ways. Mazzucato (2013) sees the State as an entrepreneur itself, who investing in one sector rather than another, influences the future innovative capacity of its regions, with Silicon Valley being an emblematic example of that public sector influence in the long run. On the other side, scholars like Mason (2015) state that processes of innovation should happen from the bottom-up just like the Makers Movement and ‘Industry 4.0’ have emerged; an excessive control from the institutional side would hamper the natural development of innovation. On similar lines, Bathelt and Boggs (2003) believe that innovative sectors are generated by necessity in the search to find new opportunities to replace declining sectors. However, comparative studies carried out by Storper et al. (2015) between San Francisco and Los Angeles, have demonstrated
how the local institutions were the main cause of the difference in the long run development of the two regions.

Especially after the big financial crisis in 2008, innovators, or more generally entrepreneurs, have become the new catch even for urban policy makers. Personalities like Glaeser (2010), have started promoting what will become a neo-liberal approach to the urban labour market, emphasizing the role of start-ups rather than urban institutions in finding a new dedication in the aftermath of the global downturn. It is as part of this trend that the support given to the Makers Movement and the introduction of digital manufacturing into the educational system under Obama’s government needs to be read (Kalil and Rodriguez, 2015). The trend has expanded from the US and reached Italy under that same trend of Americanization of the economy that was pointed out by Gramsci (Antonio and Bonanno, 2000).

This socio-political dimension, at the wider scale, becomes more evident if we notice the consequences imposed by the general downturn on the European economy and the labour market where freelancing has emerged as a very popular job model. In Italy, 19 % of the total working population is registered as self-employed, being only second to Greece (22 %) in the EU zone (EUROSTAT, 2017). Even if we look at other figures such as the youth unemployment rate – 12% (ISTAT, 2016) - the share of temporary jobs – 14% - or the portion of undeclared work – 13% - the picture does not change much (ISTAT, 2015). The State is no longer able to provide adequate social security and permanent contracts have become a mirage for people entering the labour
market. Therefore, the rocketing diffusion of this start-up culture moves forward with the promotion of a new entrepreneurialism among the various governmental institutions of the traditional capitalist world as a way to promote new economic growth.

Start-ups are becoming, after clusters (Martin and Sunley, 2003), the new panacea used by policy makers to achieve innovation in urban centres (Fiorentino, 2018). In this framework, even the related major international events - such as the Maker Faire - have become an essential institutional tool for place-branding (Ashworth, 2009). Ultimately, they disclose an increasingly neo-liberal institutional approach to the labour market (Rossi, 2017). Rossi and Di Bella (2017) have labelled this trend as ‘start-up urbanism’ involving the promotion of ‘socially interactive digital technologies’ and ‘technological start-up companies’ as ‘engines of capitalist recovery and innovation’ (Rossi & Di Bella 2017, p.2). The result is a neo-liberalization of the city itself with the relevant business institutions involved in selling ‘a new “happiness industry” an emotional machine reviving capitalism’s promise of happiness in a general context of economic shrinkage’ (Rossi & Di Bella 2017, p.2).

Although the argument promoted by Rossi and Di Bella might seem radical, the attraction of start-ups and new activities in our cities is becoming more and more an essential part of contemporary urban regeneration strategies and economic development policies, certainly widening the debate around neoliberal approaches to governance (Raco, 2005). Emergent bottom-up processes such as the Makers Movement or even the establishment of certain
co-working spaces in specific areas of our cities (Brown, 2017; Merkel, 2015; Van Holm, 2017; Wolf-Powers et al., 2017) seems to recall the creation of “sustainable community” described by Raco (2005) in the framework of neoliberal forms of governance. In the specific case of start-ups, venture capitalists have already been designated as the new investors to attract to contemporary cities (Keuschnigg and Nielsen, 2004; Mulas et al., 2016). However, the impact of those spaces and innovative enterprises, both on the market and on the built environment, still needs to be tested empirically. The emergence of such new actors in urban economies surely entails important implications for future policy development and it paves the way for the development of new governance strategies for the regeneration of our cities.

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<th>Third and Fourth Italies</th>
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<td><strong>CONTINUITIES</strong></td>
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<td><strong>Characteristics of firms in the agglomeration</strong></td>
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<td>- Small size of enterprises</td>
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<td>- Flexibility of the supply chain</td>
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<td>- Importance of knowledge <em>spillovers</em></td>
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<td><strong>Role of institutions</strong></td>
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<td>- Local institutional support</td>
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Table 2.2 – The table summarize some key conceptual continuities and discontinuities from the Third Italy model and the new speculated Fourth Italy. As emerged from the reviewed literature some changes occurred among the characteristics of the firms participating in the agglomeration. This main reason seems to have an influence on the biggest discontinuity so far speculated: the geography of the new model.

### 2.7 Conclusions

This chapter provided a review of key concepts useful for understanding the shift from the Third to the Fourth Italy. To explain how the two selected bodies
of literature (agglomeration theory and the cognitive-cultural capitalism) are linked I have provided a chronologic account of the key literature in the field of local and regional development from the 1980s until current days. In the first section, I have analysed the traditional literature on agglomeration theory. The review of studies describing the socio-economic model of the Third Italy as a stepping-stone for SMEs producing innovation was divided thematically into three main lines of argument:

1) The definition of the key actors and activities that made the Third Italy
2) Its geographical location and
3) The decisive role that institutions and the socio-political context have played in its emergence (see section 2.2).

This approach helped to provide an account from its genesis to its decline, occurring when the challenges imposed by the new global trends, detached industrial districts from the traditional horizontal specialization characterizing the Marshallian model. These same narrative lines have been followed to review the more recent concepts relevant to the Fourth Italy, allowing at the end a basic comparison between the two models that is summarized in table 2.2.

Section 2.3 of this chapter provided an account of the incremental contributions to agglomeration theory that followed at the start of the new century. Accounts of the new typologies of agglomeration shifted from the concept of districts to more comprehensive clusters. Other than causing the internationalization of firms, the globalization of markets has also generated a renewed interest in regional development policies to retain regional resources
and assets, and a re-conception of innovation creation with an increasing antagonism between MNEs and their global production networks (cf. Iammarino and Cantwell, 2003) and SMEs and the local scale of cities.

In light of this geographical shift, with SMEs back to the urban realm, the second body of literature that this chapter has explored concerns the framework of the cognitive-cultural capitalism and the definition of all the different creative, cultural and innovative businesses that might fit into this umbrella, with their implications for the surrounding built environment. The pace of innovation, at the scale of SMEs, seems nowadays driven by a complex and cross-sectorial mix of activities entangled with cultural and knowledge content, opening to the vertical integration of traditional manufacturing skills to new digital technologies and communication means, as testified by the Makers Movement. *Cities offer the necessary conditions to bridge the local support and the untraded system of relations that are necessary to set up a new business with the global pipelines of knowledge and the information flows typical of new global communication.* Early actors in the story of the cognitive - cultural capitalism were creative industries and the early policy for creative cities, trying to replicate agglomeration externalities for the regeneration of various post-industrial urban areas. The latest characters of this narrative are instead makers, start-ups, co-working spaces and the new innovative entrepreneurs of the inner city.

Similarly, this review has shown the shift from a Fordist mode to the post-Fordist flexible specialization found in the industrial district economic and
geographical model. Here, the region was the key geographical unit. With the progressive commodification of culture and the further shift towards a cognitive-cultural capitalism, the city became the new geographical reference for small innovative businesses. However, a new economic model and a system of governance has yet to be defined for this emergent theoretical framework. Agglomeration theory and the cognitive-cultural capitalism converge in a third conceptual framework that could be identified by the economic and geographical model of the Fourth Italy.

The Fourth Italy, could offer a suitable model to accommodate those new challenges, just like the Third Italy did at the time of the ‘second industrial divide’. Agglomeration theory is the necessary framework to understand spillovers, inter-firm linkages and local embeddedness, as well as to compare the current situation with that of the Third Italy. Cognitive-cultural capitalism instead helps engaging with the new geographical location and the different dynamics stemming from the variety of firms coming together in the new urban ecosystems of entrepreneurs. In the hypothesis of a Fourth Italy, economic activities are yet to be defined in a simple way, but surely they recall the mix of creativity and technology described by Scott (2014), with a geography shifted towards the urban environment, but similar institutional patterns and network dynamics to that of the Third Italy.

This research will follow the structure of this review by investigating and giving a description of the key actors, the geographical dimension and the institutional embeddedness of the emergent Fourth Italy. Having established the
theoretical framework within which the research is set, the next chapter explores the methods through which the emergence of this Fourth Italy has been tested and described. The specific case of the city of Rome is assessed and contextualized.
3 Methodology

3.1 Introduction

The motivation for this research comes from a desire to investigate the aftermath of the Third Italy and the idea of the industrial district, questioning certain traditional concepts from agglomeration theory. This chapter gives details on the methods used to address the research questions (as suggested at the end of Chapter 1), questioning the emergence of a Fourth Italy. The model unveils a new geography of innovation at the scale of small firms, reflecting on its key set of actors, locational and institutional patterns. The unfolding of the narrative on the Fourth Italy consists of an exploratory study to build knowledge and empirical grounding for further discussion on the future development and implications of the new geographical model.

Given the cross-sector framework shaping this investigation, the best way to address the postulated research questions (see section 3.2) is a case study design. This type of approach particularly suits the exploratory character of the investigation of these innovative digital services and crafts settling in the inner city. The originality of the subject requires a joint description of the social, cultural and economic framework to achieve a better understanding of the problem, which can only be reached through an in-depth analysis of a practical case (Yin, 2009). This, therefore, will be the objective of the first section of this chapter (section 3.3), where I give details on the reasons for electing Rome as a suitable single case to be analysed in the Italian context. In this city without a district tradition, the current entrepreneurial ecosystem of innovation represents a discontinuity in the economic path warmly supported by the local
public authorities, as suggested by the organization of a key event such as Maker Faire.

The main research question (How and why has a Fourth Italy emerged?) has been broken down into three sub-questions, whose unfolding correspond to the three empirical chapters of this thesis. To answer them a mixed method approach has been undertaken. First, a “who” question has been tackled to identify the key actors and firms involved in the ecosystem (see table 3.1 SUB Q.1). Given the importance of Maker Faire in Rome, I have used makers as a window of observation to understand, and circumscribe, the idea of innovation led by such innovative firms and professionals. To do so, I have led a pilot survey at the Maker Faire of Rome 2015, to receive a first impression of the types and characteristics of the activities involved. The findings coming from this survey have informed the drafting phase of the questionnaires used to undertake semi-structured interviews. The response? to this sub-question is unpacked in chapter 4.

Then a “where” question depicting the spatial dimension of the Fourth Italy is answered in chapter 5 (see table 3.1; SUB Q.2). Here, the innovative start-ups, present on the business registry provided by the Chamber of Commerce of Rome, have been mapped at different stages of time, together with the distributions of the Roman Shared Service Accommodations (SSAs), highlighting some spreading patterns along the city. More details on the pilot survey and the mapping are given in section 3.4 of this chapter.
The richest volume of data generated by this research comes however, from the qualitative material gathered through semi-structured interviews. Information gathered this way has been cross-referenced with the other data generated through the pilot survey and the mapping process. Interviews have mostly informed the final sub-question investigating the role of institutions in shaping the emergence of the Fourth Italy, as well as the size and structure of the network (see table 3.1 SUB Q. 3). Finally, the interviews led with the key representatives of the Roman innovation scene has provided key details to build a critical assessment of continuities and discontinuities between the Third and Fourth Italy. This has allowed the identification of issues to address in prospective policy agendas (as tackled in chapter 7 of this thesis). Details on the interviewing process, including fieldwork procedures and data analysis, are explained in section 3.5 of this chapter.
### 3.2 Research questions

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<tr>
<th><strong>How and Why has a Fourth Italy emerged?</strong></th>
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<tbody>
<tr>
<td>How can we describe the new geography of innovation in the field of small enterprises in Italy? What are the reasons behind its emergence? Does it correspond to the emergence of a Fourth Italy?</td>
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<tr>
<th><strong>SUB Q.1 - Who are the professionals active in this sector and what are the main features of their activities? Which idea of innovation do they lead forward?</strong></th>
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<tbody>
<tr>
<td>HYPOTHESIS: a new type of urban economy is emerging, linked to cognitive-cultural capitalism, and this corresponds to the emergence of a Fourth Italy.</td>
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<th><strong>OBJECTIVE:</strong></th>
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<tr>
<td>To describe the main features of these activities (i.e. size of firms, working spaces, professional figures, network, type of activity, sector) and to assess their conception of innovation.</td>
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<th><strong>METHODS</strong></th>
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<tr>
<td>Pilot survey to the Maker Faire of Rome 2015 used as a window on the analysis of a new blurred economic sector and a set of 5 pilot interviews to assess the availability of data and the extension of the key actors. This information is integrated with the qualitative data coming from the other 30 interviews led in Rome. More specifically, interviews led to the categories of professionals (F) and SSA users and managers will be the most relevant to this section.</td>
</tr>
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**SUB Q.2 - What is the geography of this emergent urban economy? Why do cognitive-cultural activities choose such urban locations?**

**HYPOTHESIS:** The Fourth Italy is emerging as a new geographical concentration of start-ups around the main Italian urban areas.

**OBJECTIVE:** To map the geography phenomenon, to test its urban location and to check the existence of any concentration areas.

**METHODS**
Mapping the firms from the registry of innovative start-ups held by the Chamber of Commerce and crossing of the emergent paths with the location of SSAs and other relevant amenities.

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**SUB Q 3. – What is the role of institutions in the creation of an innovation hub within the city of Rome?**

**HYPOTHESIS:** A system of untraded relations between local institutions and professionals, and very strong local embeddedness of the firms in the ecosystem of innovation is expected to be discovered in continuity with the Third Italy.

**OBJECTIVE 1:** Description of the formal institutions involved in the creation of this ecosystem of innovation and their role.

**METHODS**
Thematic analysis and coding of the material coming from the semi-structured interviews.

**OBJECTIVE 2:** Determination of the network and the connections of the ecosystem.

**METHODS**
A basic social network analysis is applied to describe the network of this ecosystem and the linkages with the institutional framework.

**OBJECTIVE 3:** Final comparison with the Third Italy model.

**METHODS**
Desk review and comparison with the qualitative and quantitative secondary data gathered on the Third Italy’s context.

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Table 3.1 – The table summarizes the set of research questions and the relating hypotheses and fixed objectives. The answers to each of these sub-questions correspond to the three empirical chapters of this thesis.
3.3 A single case study research

The research uses a single case study design and Italy was identified as the best framework to fill the addressed literature gap and examine a post-industrial and post-district scenario. Given the preliminary stage of theoretical and empirical contributions to this topic, this is the best possible method to build knowledge providing practical data in an under researched field (Flyvbjerg, 2006). Italy at the macro-scale has been a landmark for studies on new regionalism and agglomeration theory. In particular, the Third Italy with its Marshallian industrial districts is an emblematic example that was used extensively throughout literature in economic geography.

Rome is now developing, just like other Italian big urban centres, a concentration of innovative entrepreneurs and start-ups. As a city it also displays a great potential in the cultural and creative industries, representing a good opportunity to test the scope of cognitive-cultural capitalism as described by Scott (2014). The Italian capital city was selected as the most suitable case study to establish the developing theoretical connection between agglomeration theory and the most recent studies on cognitive capitalism, and to unfold new frontiers for innovation and local economic development.

In the exploration of such new horizons of knowledge, the choice of Rome follows Yin's (2009) argument, being the most critical case to test a well-formulated theory. Similarly, Mitchell (1983) identifies the case study design as a way to provide a detailed description of a context, or event, that presents proof of a set of key theoretical principles. In my case, agglomeration theory
and the literature on districts and the Third Italy is compared to the actual situation, falling within the outlined framework of cognitive capitalism.

Notably, the use of case study designs is predominant in both bodies of literature. Within traditional studies on agglomeration theory, single case study research is used for instance by De Propris and Lazzaretti (2007) to test the Marshallian features of Birmingham’s jewels district, or by Dunford et al. (2006) to examine the decline of Prato’s textile one, completely taken over by foreign stakeholders. On the other side, Scott (1996) quite extensively used the example of Los Angeles to describe the dynamics of the cultural industry. More recent studies, on the Makers Movement and start-ups development, have followed the same case-based approach to explain the effects of such emergent settlements on the surrounding areas, social communities and economic framework (Engel, 2015; Rossi and Di Bella, 2017; Van Holm, 2017; Wang and Loo, 2017).

Expanding on the choice of Italy as the country to centre the current study, other theoretical influences are to be sought once again in the existing literature. Since the late 1970s, scholars have considered Italy a landmark for any study on SMEs and small-scale manufacturing. The country in particular is used as an example in many internationally recognized pieces of milestone literature on the subject of agglomeration studies, localization economies and flexible specialization. Among the long list of studies who refer to it we can mention: Piore and Sabel (1984) claiming the beginning of the second industrial divide, Storper (1995) discussing the concepts of milieu and new
regionalism, Markusen (1996) categorizing districts by their durability, Gordon and McCann (2000) questioning the types of networks, etc. Most of these studies however, refer to the geography of the Third Italy, described by Bagnasco (1977), or to a timeframe stuck at the end of the 1990s, omitting the current situation and geographical evolution. Testing continuities and discontinuities in the same exemplar country offers the ideal location for formulating an incremental contribution to this literature.

Moving further down the scale, the case of Rome has been chosen to test the hypothesis and describe the emergence of a new type of urban economy. The Roman region has never shown a tradition in industrial districts, but with its cultural heritage the city carries great potential in the cultural and creative industry, Together with its intrinsic branding image it shows all the necessary ingredients to test a cognitive-cultural type of economy (cf. Scott 2007). Moreover, the capital city is now hosting a consistent Makers Movement, with the biggest Maker Faire organized outside of the United States since 2015 (MakerFaire, 2015). More recently, the organizers of such events have also been commissioned to set up the European Commission featured version in Brussels, demonstrating the great relevance of this phenomenon as a tool to boost entrepreneurialism. Given the shortage of data available on this new type of economy, the Roman maker world has been used as a window of observation to start the analysis of the measures in place to support entrepreneurs.
The rising number of ‘innovative start-ups’ registered on the Roman territory and the emergence of several typologies of SSAs question the cause-effect relation with the numerous institutional bodies present on the territory of the capital city. The special registry was created by the law 221 of 2012 and within the observed period from March 2015 to July 2017, the number of start-ups has tripled, while the number of SSAs has shifted from only 11 units in 2015 to more than 45 at the end of 2017 (see chapter 5). Previous studies have demonstrated that local institutional support was crucial in the development of the Third Italy (Pike et al., 1990) making it an important element to test also in the analysis of an hypothetical Fourth Italy.

The Roman entrepreneurial shift can be explained by observing the dramatic crisis recently experienced by the construction industry and by the public sector, which have shaped the Roman economy for decades [cf. Hall’s (2003) account on other European countries]. However, these changes also show that the city is trying to move on from this downturn, relocating to a different sector and profiting from a different type of urban economy. This manifested intention makes it a valuable case to test the dynamics fostering the birth of new economic paths in one’s territory as in Bathelt and Boggs (2003). Since the Roman Empire, the city’s buzz played a crucial role in gathering people and fostering face-to-face contacts. Thus, the city of Rome seemed the most comprehensive scenario to test the continuity of trust relationships since the Third Italy and to discover the reasons behind the emergence of this new type of urban economy.
I believe that the case of Rome is particularly interesting especially given the lack of a tradition in industrial districts and manufacturing. In this sense, the emergence and therefore the study of the contemporary entrepreneurial agglomerations stand as a further occasion to test the hypothesis of correlation between such typology of ecosystem and lagging socio-economic contexts. In a similar way, the heavy presence of the public sector in Rome, represent a good opportunity to test the role and engagement of institutions in supporting and promoting a potential cluster of innovation. In Milan instead, where the private sector is strong and a tradition of industrial districts exists, the emergence of an ecosystem of start-ups might not be a radical rupture under the socio-economic point of view. In that sense, the choice of a city like Milan would have been less representative for testing the new model of agglomeration. That said, the main change to notice would still be in the geography: urban vs industrial peripheral and new working spaces vs traditional factories.

Finally, an additional reason for the case study choice is linked to my cultural background and native language. This knowledge has granted me an easier access to the Italian literature on the subject of the Third Italy as well as an in-depth knowledge of its economic geography and socio-political context. On the empirical side, this research could count on my personal networks and knowledge, key to enter the social capital linkages regulating most of the information sharing within Rome. The partnership with the Roman branch of the Confederazione Nazionale dell'Artigianato e della Piccola e Media Impresa (CNA) - the national trade association for crafts and SMEs – offering support
to this research was of crucial importance to gather the first interviewees contacts and to assure their agreement in participating in the research.

3.4 Applying mixed methods to unravel the Fourth Italy.

This research uses mainly a qualitative analysis to describe and explain the possible emergence of the Fourth Italy. The different nature of the cultural and the economic issues that are tackled suggested the necessity of the addition of some quantitative data resulting in a mixed method approach (Creswell and Plano Clark, 2010). Qualitative analysis is the most common for case study research (Burton, 2000). Although Burawoy (1998, p. 4) reminds us of the importance of having a joint approach, making a distinction between “positive science” (based on survey, interview, situational effects) - which is influenced by “context effects” - and “reflexive science”, which is instead limited by “power effects” (domination, objectification, normalization).

Since the early stages of my research, a mixed methods approach seemed the most suitable to combine qualitative interviews with quantitative data on innovative firms’ performances. This choice was in line with the attempted desire of joining two bodies of literature, different by nature. As stated by Pratt on the subject of methods applicable to the study of the cultural industry (2008b, p. 47):

“The cultural economy has a very strong and often institutionalized, feedback system between production and consumption: examples are charts, critics and audiences. […] [This] is an information rich activity and hence relies upon a highly qualitative and quantitative
flow of information, coupled with a finely tuned interpretive and relativistic judgement.”

However, issues on the limitation of large data compiling were found in other studies on the creative and cultural industries. Given their volatile definition (Boggs, 2009) and the following struggles in storing quantitative data on the subject and in the selection of the relevant actors (Markusen, 2006). Therefore, studies in those disciplines tend to be more qualitative based with interpretation assuming a key importance.

In addition to that, both the Italian context and the limited availability of quantitative data, either secondary or primary, have considerably limited the quantitative part of the research (see also section 3.3.3). The economy here studied is still at its infancy and as such, most of its innovative features are still delineating. Being a phenomenon in its infancy, the development of a quantitative research approach was not yet an option. Databases collecting statistics, records on the economic performance of start-ups, new activities and makers, do not yet exist.

Given the limitation of the data available on innovative activities, their performances and the exact identification of the participants to this new ecosystem of innovation in Rome, the first effort made by this research was to build a sample of representative actors. As in previous studies on creative industries (Hall, 2000; Hutton, 2010; Markusen, 2006; Smith Maguire and Matthews, 2014), the set of cognitive-cultural activities that this research intended to investigate could not be identified in any of the standard economic
sectors listed in the International Standard Industrial Classification of All Economic Activities (ISIC) provided by the United Nation (2016). Previous examples from other fields, for which the traditional sectorial approach did not fit the purpose of the study include Storper et al. (2015) and Moretti (2012), both engaged in studies investigating shifting geographies of urban economies and their labour markets. In my Italian case, a complication was offered due to a lack of resources that made the interpretation of secondary data and the comparison between macroeconomics indexes and local firms' performances impossible. For the above reasons, this research has primarily engaged in providing an exploratory set of activities and a new conceptual framework to develop a methodology that could be replicated in future analysis on the new type of industry represented by the emerging Fourth Italy.

To narrow down the typology of activities part of the ecosystem, the study has initially referred to the categorization of cultural industry and creative economy provided by scholars and discussed extensively in the literature review [see section 2.4.1 on Hall (2000), Markusen et al. (2008), Scott (2010) and Hutton (2010)]. However, the current research on the Fourth Italy has been motivated by the goal of generating an empirical grounding to the shifting urban economies under the perspectives of the more comprehensive cognitive-cultural capitalism as predicted by Scott (2014). This framework includes therefore the investigation of some more innovative activities in the digital and innovation field that came to public attention with the Makers Movement (Anderson, 2012; Dougherty, 2012).
The quantitative part of this study (map and survey) primarily took place in the preliminary phase, and was used to focus the following data collection\(^6\). The real data collection process started with the pilot survey made at Maker Faire in 2015. The former has followed the traditional approach of agglomeration theory, to verify whether the classical inquiries used for traditional manufacturing firms still applied to the current sector. The responses gathered showed that the contemporary urban concentrations of innovative firms do not comply with these general rules anymore. Similarly, mapping “innovative start-ups”, from the list available to download from the dedicated website of the Chamber of Commerce as detailed in section 3.3.2, made evident a geographical shift with their stark concentration in the inner city of Rome (see figure 5.2).

The above-mentioned lack of data storage, together with the preliminary findings coming from the pilot, imposed a change of direction in the research design for the following steps of data collection, to nurture a more qualitative based design. Hence, themes and questions to cover in the semi-structured interviews have been tailored to accommodate these preliminary findings. Providing a basic understanding of the key stakeholders and their relations as well as the geographical features of the Fourth Italy, means building a theoretical framework useful to set future research, which expands on the topic. This implies talking to the various actors and learning from their words.

\(^6\) A first small set of interviews was also part of the pilot. These first five interviews - three of which with the representative of CNA of Rome – were undertook in order to achieve a preliminary assessment of the extent of the research useful to formulate the relating hypotheses.
From here, the approach? later in the data analysis is to combine thematic coding with grounded theory. The next two sections will give details on the survey and mapping methods.

3.4.1 A pilot survey to define the sector

A pilot survey was undertaken in October 2015 at the third edition of Maker Faire in Rome, to test the main features of the firms shaping the Fourth Italy. Detailed research on makers and on the related temporary clusters is still in its infancy (Bathelt et al., 2004; Birtchnell and Urry, 2016; Capdevila, 2014). The data gathered at the Maker Faire provide a powerful and comprehensive picture of the movement and its surrounding context. The survey of makers has investigated the features, locational preferences and benefits sought by makers when exhibiting at the Makers Faire 2015. It therefore provides evidence that speaks to the first sub research question of this thesis (see section 3.1).

The first signal of institutional and political embeddedness for the Maker Faire of Rome in 2015 was the choice of the location, which was intentionally chosen to establish the event in the city’s annual calendar of events. It intended to mark out the city as a promoter for the development of new enterprises and the placement of young professionals. The fair was organized in the oldest educational institution of Rome – the university of “La Sapienza” - in the city
centre. This was a strategic political choice to establish a connection between the university and the professional careers associated with the fair.

A total of 250 stalls were distributed in 23 temporary pavilions throughout the courtyard area of the campus with some further stages and conference rooms arranged for the various showcases in other courtyard areas and lecture theatres. The various pavilions were organized thematically around macro subjects (e.g. fashion, architecture, music, robotic, etc.). Other than these, there were the stalls owned by the sponsors and the main partner institutions, or hospitality brands. The sponsors’ stalls (mainly owned by big multinational corporations, some of which also sponsoring the event) were excluded from the survey, since these multinational corporations were not representative of the small entrepreneurial sector I wished to investigate. I also excluded those oriented to children’s entertainment or selling food. Among the 200 owners/managers that I sought to survey, 90 completed questionnaires were collected, representing a response rate of 45%, of these firms 62% came from Italy and 17% were based in Rome. Twenty of these questionnaires were accompanied by extended informal conversations. A sample of the questionnaire distributed to the firms is included in Appendix A. Findings from this survey have led the following phases of this research.

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7 Given the more than 100,000 visitors of the 2015 edition, the 2016 edition has been moved to the much bigger trade fair centre of Rome, featuring an exhibition space three times bigger than the year before, despite its less central location.
Makers are not the only facet of the developing Fourth Italy, but this survey was particularly important to define the type of activities and their sector of belonging. The key findings from this pilot have guided the three main lines of investigation undertaken in the following qualitative steps of the research:

1. The Makers Movement and the new type of economy that they represent, include a wide variety of activities. Their understanding bridges knowledge and theories coming from different fields of knowledge (e.g. creative/cultural economies, innovation and technology clusters).

2. They are an urban phenomenon and it is important to investigate the role of the new working spaces: SSAs

3. There are a number of connections to the institutional framework. The understanding of the role played by the public sector in the support and development of those innovative activities is crucial to gather a better sense of the Fourth Italy.

The following steps of the methodology, as detailed in the next sections, mainly spread from these three assumptions and the limitations offered by the scarcity of available official primary data.

### 3.4.2 Mapping the geography of innovation

To give a preliminary answer to the “where” question of this thesis, and to test the physical geography of the Fourth Italy, a series of maps have been produced to show the spatial distribution of those innovative firms. The pilot survey already suggested an urban revival trend. However, once more a challenge was offered by the limited availability of data. A decision had to be
taken on the actors useful to include on the map in order to test the emerging hypothesis of urban centrality. Restricting the sample to makers would have been limiting and impossible at the same time. Given the free-lancing and the volatility of such professionals it was very difficult to trace their locational patterns on a map. In addition to that, only the 17% of those surveyed at the Maker Faire were based in Rome (62% came from the rest of Italy). So again, the results from the survey could constitute a valuable scoping study on the major trends, but they could not be translated in a more systematic quantitative mapping exercise.

Another important resource was found in the business registry of “innovative start-ups” (a category established by the law n. 221 of 2012) held by the Chamber of Commerce. Registries are published at the end of each term on a dedicated website powered by the Italian Chamber of Commerce (http://startup.registroimprese.it/isin/home). At the beginning of this research in 2015, no additional reports existed. The list of start-ups could be openly and easily downloaded from the above website, as they do not contain any sensitive data on the registered firms. Nowadays, as the number of firms and data collected is growing, a request needs to be forwarded to receive the most recent registries by email. These start-up lists have represented the starting point of the spatial mapping of the new geography of innovation.

The first action consisted in gathering, through desk research, all the addresses of the start-ups on the registry headquartered in the Lazio region. Data on location, size or even the structure of those firms are in fact not
included in the data stored and shared on the published start-ups registries. The first downloaded list dated back to March 2015 and it showed 247 firms registered on the territory of Rome (with a corresponding total number of 283 for the whole region). I then repeatedly accessed the registry both in 2016 and in 2017, to monitor the growth and spread of the firms over the metropolitan territory of Rome.

To do so, I have used in the first place MyMap, an open access software powered by Google. The process was iterated once a year (in 2016 and in 2017) allowing a comparison and an appraisal of the trends. The number of start-ups has steadily increased, and their location has remained consistently urban and concentrated in the city of Rome. At a second stage, all the SSAs of Rome have also been mapped, monitoring their evolution throughout time. Locational data from start-ups and SSAs have been matched with the info on locational choices coming from the interviews to highlight and interpret the presence of any correlation. Some concentration areas have emerged, in the inner neighbourhoods around the historical centre of Rome. Matching the dots appeared on the map with an in-depth reading of the urban fabric and the proximity with all the relevant amenities (e.g. university, local institutions, public transports or the most popular locations for dedicated events such as trade fairs, etc.) has supplemented a discussion on the reasons behind the emergence of those areas of concentration.

This step was useful to evaluate the urban character of the Fourth Italy, but also to give an idea of the size and distribution of the Roman cognitive-cultural
economy, especially in relation to the regional scale. Data on the locational patterns will be extensively discussed in chapter 5 of this thesis. However, the analysis of the registry for innovative start-ups alone still displayed a number of limitations, for example the vagueness of the qualifying criteria that mainly concentrate on the skills of the partners and on the firms’ annual turnover. Secondly the omission from the sample of all free-lancers and other regular SMEs, or even innovative activities not fitting the restrictive criteria set by law (see section 4.2.2). Conversely, the registry might also allow the inclusion of activities newly constituted but not highly innovative. These issues will be later confirmed during the interviews. One of the emerging sub-themes cited by several interviewees was the limitation of the criteria to define a new business as ‘innovative’ and therefore get access to the benefits granted by the inscription on the special registry (see chapter 4).

Moreover, the limitation of the analysis to these innovative start-ups registry would have restricted the investigation to a specific bureaucratic and political framework or in other words, to the corresponding legislation and governmental will. The purpose of this study is instead to present a picture of a more general trend in economic geography, disconnected by changes that might occur in the Italian fiscal bureaucracy or in formal firms’ registries. To overcome the highlighted limitations and achieve a full grasp of the overall phenomenon, this material was complemented by information gathered through the interviews.
The set of five pilot interviews in April 2015 was particularly revealing to generalize and give an interpretation of the geographical trends found by mapping the registries’ dataset. It allowed formulating a hypothesis on the defining concentration areas for innovation and it highlighted the importance of including SSAs in the mapping. A list of the first Roman CWSs was provided by two of those pilot interviewees (see figure 5.6), which highlighted the influence of those facilities on the emergent ecosystem of innovation and their potential absorptive capacity for new firms. This initial list was updated in the following two years and complemented by an additional desk research. The next section details the qualitative data gathering process, explaining the way interviews have helped to build knowledge, as well as to explain the typology of firms, the network and the institutional context shaping the Fourth Italy.

3.5 Qualitative research building knowledge in an under researched topic.

3.5.1 Defining an accurate set of actors, snowball sampling and semi-structured interviews

Primary data has been collected from semi-structured interviews led with key professionals and experts active in the Roman ecosystem of innovation. This qualitative method is the best to describe, unravel and explain complex situations and events (Davies et al., 2014). As stated by Yin (2009, p. 110):

“One of the most important sources of case study evidence is the interview. [They] are commonly found in case study research [and] will resemble guided conversations rather than structured queries.”
This is exactly the approach followed by this research design. Interviews have been the key source of original data, based on semi-structured questionnaires and thematically organized around the key features of the Fourth Italy that I sought to investigate (see section 3.4.2). Here as follow I detail the key challenges occurred in the selection of key representatives for the sample, in an inward looking and reluctant context like the Roman one.

Figure 3.1 - The diagram shows the pyramidal (and top-down) approach followed to activate the snowball sampling effect throughout the interviewing process.

The semi-structured interviews mainly shed light on my third research question investigating the role of institutions in the emergence of the new entrepreneurial ecosystem of innovation in Rome (chapter 6). However, such data also complemented the discussions tackled by chapter 4 and 5, respectively on the description of the features of the Fourth Italy and its geography. Qualitative interviews are particularly useful when the set of actors is relatively small and the participants are chosen with good care (Stroh, 2000, p. 196). A total of thirty-five interviews were conducted in this research, out of
forty-six people contacted. A total of eighty-one names were mentioned as the result of the snowball sampling process, thirteen of which was not possible to contact them as no phone number nor e-mail address were ever specified. Among the remaining names, some were not very relevant for the purposes of the research.

At the beginning, the challenge was to define the groups and sub-sets of actors that were effectively part of the ecosystem. As most of these makers or creative professionals are self-employed, it is difficult to keep track of all the businesses involved in the sample. Therefore, the first pilot interviews were crucial to decide the actors that should have been taken into consideration and to make sure to include all the different facets of the studied phenomenon (cf. van Teijlingen & Hundley 2001). Those first encounters revealed three main categories of stakeholders: 1) institutions, 2) firms and 3) SSAs. More specifically, they included innovative start-ups, traditional SMEs producing digital fabrication or applications, SSAs’ users and providers, makers, all sorts of institutional bodies involved in the support of innovation and in the process of cluster creation. In order to cover all the possible representatives, a snowball sampling method has been adopted.

As represented in figure 3.1, interviews followed a pyramidal approach. I started the pilot by interviewing the key institutional figures from the CNA partner of this research. Then, I contacted some representatives from the Chambers of Commerce, and descending the pyramid SSAs and Maker Faire organizers. SSAs emerged as important stakeholders throughout the
investigations (their first contacts were suggested by officers from the CNA of Rome). Speaking with the organizers of Maker Faire instead represented an important step to complete and complement the findings from the pilot survey. The actors at the vertexes of the triangle were able to introduce me to the other institutional actors as well as to the whole set of professionals. The three main different sets inside the triangle represent the different groups of professionals to whom I was introduced. As shown by the figure, sometimes they have an intersection, as they might simultaneously belong to more than one group.

A knowledge of the context and having personal contacts with the “gatekeepers” was crucial to undertake this investigation of the Fourth Italy. Since the first encounters at Maker Faire and after the pilot interviews, it became clear that the innovation scene of Rome is dominated by a close circle of people. Some personal connections in the high institutional ranks were crucial to get access to it. Figure 3.1 shows the dynamics of the snowball sampling process and the pyramidal orientation of the Roman innovation network. Social capital and trust relationships have always been of great value in Italy (Boschma, 2005a; Crescenzi et al., 2013; Gordon and McCann, 2000; Storper, 1995) and they still remain the access key to the Roman innovation scene. Given the lack of official data storages and collection, an access point granted from above has been crucial to gather information and to enter this close circle of professionals and institutions operating in the new urban agglomeration. In my case, the top-down access was a contact at the vertex of the Roman confederation of crafts, CNA, which warmly supported this research since the very beginning.
Among the first five pilot interviews, three of those were with actors from the CNA (INS1, INS2, INS3; the president of the Roman branch of the association and two other territorial officers in charge of innovative businesses and the related events). They introduced me to most of the other relevant institutional charges and to some of the professionals involved in the ecosystem (or hired by formal institutions). The initial list of suggested stakeholders counted around ten innovative businesses, most of which were SSAs (and mostly among their associates). Most of the Roman co-working spaces and fab-labs started as a business set up by free-lancers active in the creative industry, willing to cut their costs. Back in 2015, SSAs in Rome were great news. Numbers indicated that they were less than ten, on the whole Roman territory. Therefore, to gather a preliminary knowledge on the topic, the other two pilot interviews were led respectively with the managers of the first official co-working space and fab-lab of the city (SSA1 and M1).

At the end of the interview, all participants were asked to suggest other relevant contacts in order to enlarge the snowball sample (Walliman, 2006). The method has been iterated until theoretical saturation was reached (Charmaz, 2006; Glaser and Strauss, 1967). Namely, after thirty-five interviews had been undertaken, the suggested names started to overlap and information became somewhat repetitive. Three main categories were identified: firms (F), institutions (INS) and SSAs. The investigation of institutions started by the organizers of Maker Faire to integrate information gathered within the pilot survey. As stated earlier, I was introduced to the first
SSAs managers by the first pilot interviewees, but then all others contacts with professionals (both SSAs’ users or managers and other firms) came as a natural trigger from the snowball sampling as this set of interviewees was more open to dialogue overall. Questions were tailored to the relevant group of belonging and steered by the elaborated findings from the pilot survey. Table 3.1 reports a list of the interviewees and the ID code by which they will be identified throughout this thesis in order to respect privacy and anonymity. Finally, to visualize the structure of the network shaping the ecosystem I plotted in a relational matrix all the connections between the different actors of the Roman innovation scene. Those connections were tested through an additional question added at the end of each interview. The results are shown in the diagram in figure 6.1, which has been developed through UCINET (Borgatti et al., 2002), a software usually used for studies based on social network analysis.
<table>
<thead>
<tr>
<th>#</th>
<th>ID CODE</th>
<th>INSTITUTIONS</th>
<th>CHARGE</th>
<th>TIPOLOGY OF ORIGIN INSTITUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SSA1</td>
<td>Millepiani, co-working municipio Garbatella</td>
<td>Manager, freelance in the graphic design field</td>
<td>NGO (cooperative)</td>
</tr>
<tr>
<td>2</td>
<td>INS1</td>
<td>CNA</td>
<td>President</td>
<td>Trade association</td>
</tr>
<tr>
<td>3</td>
<td>INS2</td>
<td>CNA area sindacale</td>
<td>Event coordinator and union area</td>
<td>Trade association</td>
</tr>
<tr>
<td>4</td>
<td>INS3</td>
<td>CNA pmi</td>
<td>SMEs area employee, now retired</td>
<td>Trade association</td>
</tr>
<tr>
<td>5</td>
<td>INS4</td>
<td>Chamber of Commerce of Rome</td>
<td>Statistics and economic consultant for the region, Chamber of Commerce and related agencies (including Asset Camera for the Maker Faire of Rome)</td>
<td>Chamber of commerce</td>
</tr>
<tr>
<td>6</td>
<td>INS5</td>
<td>Asset Camera (agency of the Chamber of Commerce in charge of events and promotion)</td>
<td>Chief operating officer (COO)</td>
<td>Agency of the chamber of commerce</td>
</tr>
<tr>
<td>7</td>
<td>M1</td>
<td>Roma Makers</td>
<td>Founders</td>
<td>SSA formally an A.P.S. (Associazione di Promozione Sociale)</td>
</tr>
<tr>
<td>8</td>
<td>INS6</td>
<td>Municipio V</td>
<td>Former councillor for social policies, then candidate running for the presidency of the council, currently council member of the opposition party</td>
<td>Local authority</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>9</td>
<td>INS7</td>
<td>Tecnopolo Tiburtino</td>
<td>Chief operating officer (COO) - Assistant Director</td>
<td>Consortium</td>
</tr>
<tr>
<td>10</td>
<td>F1</td>
<td>Fonderie digitali</td>
<td>CEO - Head of Communications and Marketing</td>
<td>Consortium (rete d'impresa) /firm</td>
</tr>
<tr>
<td>11</td>
<td>M2</td>
<td>Independent (Slicer)</td>
<td>Architect, maker, Maker Faire organizer for Asset Camera, researcher for Make in Italy association</td>
<td>Free-lance</td>
</tr>
<tr>
<td>12</td>
<td>INS8</td>
<td>BiC Lazio</td>
<td>General manager</td>
<td>special agency of the Region</td>
</tr>
<tr>
<td>13</td>
<td>SSA2</td>
<td>L'Alveare</td>
<td>Manager of the SSA</td>
<td>NGO (cooperative)</td>
</tr>
<tr>
<td>14</td>
<td>INS9</td>
<td>Municipio V</td>
<td>Council member in charge of the environment, innovation and urban sanitation, president of the NGO &quot;la città delle mamme&quot;</td>
<td>Local authority</td>
</tr>
<tr>
<td>15</td>
<td>SSA3</td>
<td>Fuso Lab</td>
<td>Manager</td>
<td>SSA formally an A.P.S. (Associazione di Promozione Sociale)</td>
</tr>
<tr>
<td>16</td>
<td>M3 and M4</td>
<td>Fab-lab Lazio; Roma Makers</td>
<td>Founder - members</td>
<td>Service for BiC Lazio and the region</td>
</tr>
<tr>
<td>17</td>
<td>F2</td>
<td>Architectural practice</td>
<td>Architects using digital fabrication and digital design</td>
<td>Practice</td>
</tr>
<tr>
<td>18</td>
<td>SSA7</td>
<td>Talent Garden Roma</td>
<td>Manager</td>
<td>SSA (partner Poste Italiane)</td>
</tr>
<tr>
<td>19</td>
<td>E1</td>
<td>Roma Start up</td>
<td>CEO</td>
<td>NGO</td>
</tr>
<tr>
<td>20</td>
<td>SSA4</td>
<td>Impact hub roma</td>
<td>CEO</td>
<td>Franchising SSA</td>
</tr>
<tr>
<td>21</td>
<td>IN10</td>
<td>Consiglio Regionale del Lazio</td>
<td>Executive manager</td>
<td>Region official</td>
</tr>
<tr>
<td>22</td>
<td>SSA5</td>
<td>Famo Cose</td>
<td>Owner/manager</td>
<td>SSA private</td>
</tr>
<tr>
<td></td>
<td>ID</td>
<td>Name</td>
<td>Role/Position</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>----</td>
<td>-----------------------</td>
<td>-------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>F3</td>
<td>Nausdream</td>
<td>Founder innovative startup</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>F4</td>
<td>Whoosnap</td>
<td>Founder innovative startup</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>F5</td>
<td>Codemotion</td>
<td>Founder</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>F6</td>
<td>Karaoke One</td>
<td>Founder startup</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>F7</td>
<td>Bemyguru</td>
<td>Founder startup</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>SSA6</td>
<td>L Venture</td>
<td>CEO Employee</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SSA6b</td>
<td></td>
<td>Business accelerator</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>E2</td>
<td>Prof. Roma Tre/innovation Lab</td>
<td>Academic, member and consultant of various NGOs for start-ups</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E2</td>
<td></td>
<td>Expert, academic, former incubator manager</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>F8</td>
<td>Pekaboo</td>
<td>CEO business incubator</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>INS11</td>
<td>Lazio Region</td>
<td>Councillor</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Regional board elected member</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>INS12</td>
<td>MIT ministero delle Infrastrutture e dei Trasporti,</td>
<td>Architect in the department &quot;Territori e Innovazione&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ministry of the infrastructures</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>F9</td>
<td>ItaliaCamp</td>
<td>General secretary</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Firm with sharehold from Poste Italiane, Ferrovie dello stato, Invitalia, RCS media group</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>INS13</td>
<td>Comune di Roma - Regione Lazio</td>
<td>Member of the opposition / executive manager</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Region/Rome Municipal authority</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>E3</td>
<td>Fondazione mondo digitale/ Solido 3D</td>
<td>Scientific director</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Foundation (Comune di Roma owns a sharehold)</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.2 – The table displays the list of interviewed actors. The acronyms in the ID codes stand for:
SSA: Shared Service Accomodation ; INS: institution ; F: firm ; M: maker ; E: expert or NGO manager
3.5.2 Fieldwork

Most of the fieldwork took place in Rome during the summer of 2016, from April to September, except from the pilot survey and interviews, which respectively dated back to October and April 2015. This represented a peculiar period of time for the Italian capital city. First, the annual leave season made people available by fits and starts. In addition to that, June 2016 saw the election of the new mayor of Rome. The event came in a general climate of socio-political crisis of the city, exiting the Mafia Capitale scam. It resulted in the election of Virginia Raggi, the first representative of the populist Five Star Movement to gain the Campidoglio’s seat. The period of electoral campaign directly affected - sometimes positively sometimes negatively - the availability of the different actors, if belonging to local authorities or other involved institutions.

Semi-structured interviews represented the most suitable style of approach given the Italian cultural framework that is inclined to relations of trust, as well as a good format to cope with unforeseen reactions and events. The first struggles encountered consisted in gaining the trust of respondents, overcoming the general initial reluctance in participating to the research, and finding a way to contact people if not introduced by someone in the higher ranks of the pyramid. On this former point, sometimes it got even necessary that the person suggesting the contact (usually someone at the vertex of the pyramidal diagram from figure 3.1) would personally contact him/her to introduce me in order to assure that I would get an answer later in the process. In some cases, this was not even enough to overcome the general scepticism
and mistrust in answering questions. Throughout the fieldwork, I kept an interview diary reporting dates, contact details and notes to record the storyboard of the snowball sampling process and the number of times people were contacted. The list also includes the unsuccessful cases, when people decided not to participate in the research, or repeatedly missed a booked meeting, and all the mentioned names. For ethical reasons the table could not be included in the thesis.

Given the importance of the network of trust, the face-to-face approach was always more rewarding and successful than a colder approach by e-mail. I contacted most of the interviewees by phone, most of the times needing to declare who gave me their contact and explaining the specific reasons I was doing it. Higher institutional charges and politicians were the hardest to reach (Duke, 2002; Nudzor, 2013). A few hostile and patronizing attitudes were encountered, especially among those unsatisfied with the general economic condition of the city. Overall, this negative attitude – triggered either by my age, gender or as belonging to a foreign academic institution - was more evident among people related to the public sector rather than among the youngest professionals. When they perceived me as a student this would fuel their trust and change their disposition making them less worried in disclosing professional info rather than perceiving me as a judgemental peer.

Reflecting on my positionality as a researcher, to fulfil my goal of disclosing the development of the Fourth Italy and describing the new type of agglomeration, I always tried to adopt an outsider position, to collect data as
more objective as I could (Rowe, 2014). Whenever possible, I always positioned myself as a learner, to avoid interfering in the data gathering (Phillips and Johns, 2012). If required I offered to share with the interviewees a report on the generated findings. I thoughtfully selected the place for my interviews (Elwood and Martin, 2004), and I mostly met the participants in their own working space or offices (except for two occasions in which the professionals asked me to meet in a coffee shop; including the most hostile case). This was the most preferable situation for my research purposes. It allowed me to add impressions gathered from the site visits to the office spaces, and by driving and walking around the surrounding area to the general package of information (Elwood and Martin, 2004). All those observations were noted down in my fieldwork diary, allowing a fuller picture of the phenomenon in the later stages of the analysis.

Most interviewees were surprised and unprepared for recorded interviews that are not very frequent in Italy, even for research purpose. In addition to that, this cutting-edge topic was never investigated by scholars before. Actors used to press interviews and dealing with the media were more open to the format, but very often also less spontaneous in letting themselves go to more confidential details or criticisms. The first set of pilot interviews was not recorded as the main goal of those exchanges was to achieve a basic knowledge of the context and to gather access to the system of untraded relationships shaping the ecosystem, or in other words to access the network introduced by someone from the inside. In this phase, I took extensive notes, and once back from the interview I expanded and elaborated on them in the
form of a commentary for future record in the data analysis. Among the remaining thirty interviews, most of them agreed to be recorded. Although most of the times many additional info on networks and background news were added once the recorder went off. For this reason, I kept taking extensive notes and compiling a fieldwork diary throughout the data collection period.

All interviews were transcribed to facilitate the analysis and to allow a more systematic coding. All interviews took place in Italian. The length of the interviews varied from half an hour for the shortest to two hours for the longest, usually when people were more enthusiastic and knowledgeable. In four situations, I was expecting to interview a person, but I was instead redirected to some of their employees. Most of the times, the inconvenience did not affect my research purposes. Within my conversations, I tried to be impartial and avoid influencing the answers with my own point of view and preconceptions coming from existing theories. I let the selected respondents speak freely when they were willing to, trying not to interrupt their flow but only steering them back to focus if necessary. To do so, I always brought with me an outline of the topics to cover and a notebook where I eventually noted down things that were mentioned to be picked upon later, asking them to expand on that particular subject. I also adjusted my outline and my questions while progressing with the data collection, therefore building a more solid knowledge.

Semi-structured questionnaires allowed for flexibility, which was needed for the exploratory purposes of my research as well as to target very different interlocutors (Fylan, 2005; Louise Barriball and While, 1994). Having an open
questionnaire allowed room for unexpected and additional information or digressions. However, most of all it gave me the chance to test my hypotheses and to adjust my questions while building my knowledge on the ecosystem. I designed different types of guiding questionnaires targeting different groups: institutions, SSAs and firms. In all three cases, I made sure to cover in a tailor-made way the three basic themes relating to my research questions: 1) their idea of innovation, and the type of activity they carried out (a description of what they do), 2) their locational preferences and motivations, 3) the structure of their network and their institutional connections. Gathering some information before going to the interview and showing awareness of who they were and what they had done before generally pleased the interviewees and helped to gain their trust and encourage discussion.

I deliberately tended to avoid mentioning the words “cluster” or “industrial district” with my interviewees, unless they brought them up in the first place, to avoid biases, to test their awareness of any agglomeration patterns and to analyse discourse and terminology (see section 4.4). Similarly, I also intended to allow the natural emergence of any reference to continuities or discontinuities with the Third Italy to later reconnect the emerged patterns with existing theory on the subject, make my assumptions and build a comparison. As detailed in the next section, this process was undertaken in preparation for my data analysis, in particular for the bit related to grounded theory (Glaser and Strauss, 1967).
3.5.3 Qualitative data analysis: from thematic coding to grounded theory.

This research was motivated by a desire to test the emergence of the Fourth Italy and to explain and describe the key features of its geography and of the urban economy associated to it. As shown in chapter 2 the study intends to provide an increment to agglomeration theory by bridging its key theoretical principles with knowledge from the cognitive-cultural capitalism, and incorporating the latest trends on the matter of innovation for small businesses. Given the gap identified among literature, and the exploratory features that have characterized my whole fieldwork, a combination of thematic coding and grounded theory appeared as the most suitable way to analyse my data. This mixed approach is also coherent with the mixed methods used to provide sufficient empirical ground to describe and test the existence of the Fourth Italy in all its facets (cf. Walliman 2006, pp.16-17-37).

According to Braun & Clarke (2006, p.81):

“Thematic analysis is not wedded to any pre-existing theoretical framework, and therefore it can be used within different theoretical frameworks”.

It therefore appears suitable to test my hypotheses based on the macro comparison with the key features of the theorization by Bagnasco (1977) on the Third Italy model. On the other hand, to verify the existence and formulate a description of the Fourth Italy, the inductive approach of grounded theory seemed the most fitting in order to develop and provide a theoretical base for future research (Charmaz, 2006). Usually, the two analytical methods tends to
be confused and overlapped as ultimately they are both based on a qualitative analysis of material coming from a set of interviews and its coding. This section intends to give details on the way the two approaches have complemented in this data analysis in order to provide a final answer to the following question: *is the Fourth Italy a myth or a reality?*

Thematic analysis is a foundational method in qualitative research and it is the best means to look for patterns with a flexible approach (Braun and Clarke, 2006). The types of patterns investigated by this research were both social and spatial. Some initial hypothesis were formulated speculating the evident discontinuities between Third and Fourth Italy model, identified with the different geography or locational patterns and the type of enterprises involved (answering the “where” and “what” questions). On the other hand, in the search for continuities or better in the description of the new features of the Fourth Italy more insecurity was implied. An embedded system of trust relationships and an influence coming from the institutional support were expected, but the nature of it and its structure were unknown until the first data were collected. Similarly, causes and effective awareness of the Fourth Italy as a socio-economic and geographical model were yet to be discovered.

The identification of existing patterns of continuities and the reasons for the emergence of a new geography of innovation (the real “how and “why” questions) needed to be inducted through the data collection (Glaser and Strauss, 1967). For the above reasons, a pure thematic analysis approach was not enough. Therefore, for the sake of testing and defining this new model of
agglomeration – corresponding to the Fourth Italy - coding with a deductive approach and hypotheses testing have been combined with an inductive approach common in grounded theory, particularly useful for comparative analysis or theory building.

Several unforeseen discoveries along the way, contributed to the pairing of the two methods. First, the adjustments imposed by the pilot study and the limited availability of data; secondly, the discovery that hard and soft institutions had even more weight than I initially expected. These two main reasons forced me to adjust questions in the data collection process and to tweak the list of expected participants leading to the entire dedication of chapter 6 to the role of institutions in the emergence of the Fourth Italy. This last empirical chapter more clearly demonstrates an approach typical of grounded theory more clearly than the other two.

Once all the qualitative data was collected, interviews were transcribed and then coded through the use of the software NVivo. In the coding process, I have followed the theorization on thematic analysis provided by Braun & Clarke (2006) and its speculated six main steps before being able of crating meaningful patterns. They correspond to: absorbing the data, preliminary coding, grouping these first codes around possible themes, review of the themes, defining and naming themes and sub-themes, writing-up of the analysis. Grounded theory expects an interpretative approach with the continuous revision of codes while collecting them. Codes are transformed first into concepts and then they become categories or themes. A combination of both has been used in this research (Fereday and Muir-Cochrane, 2006).
<table>
<thead>
<tr>
<th>CONTINUITIES</th>
<th>DISCONTINUITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ch 4. Characteristics of firms in the agglomeration [WHAT/WHO]</strong></td>
<td></td>
</tr>
<tr>
<td>- Specialized and dense labour pool required</td>
<td>- Type of required skills, cross-sectorial knowledge</td>
</tr>
<tr>
<td>- Small size of enterprises</td>
<td>- Input/output relations</td>
</tr>
<tr>
<td>- Flexibility in the productive chain</td>
<td>- Education</td>
</tr>
<tr>
<td></td>
<td>- Conception of innovation</td>
</tr>
<tr>
<td><strong>Ch 6: Role of institutions [HOW and WHY]</strong></td>
<td></td>
</tr>
<tr>
<td>- Network thickness, untraded relationships &amp; social capital</td>
<td>- Importance and impact of urban location</td>
</tr>
<tr>
<td>- Creation of enabling intermediaries</td>
<td>- Working spaces</td>
</tr>
<tr>
<td>- Local institutional support</td>
<td>- Logistic and infrastructural requirements</td>
</tr>
<tr>
<td></td>
<td>- Network’s scale</td>
</tr>
</tbody>
</table>

Table 3.3 - The table show the distribution of some of the emerged sub-themes in the three empirical chapters of this thesis. The categorization here proposed related to continuities and discontinuities emerged with the Third Italy model.

Fifty-two nodes have emerged in total, organized around the three main themes: type of firms, location and institutional role. Those major themes also correspond to the plot blocks of my questionnaires, and each of them is tackled by one of the empirical chapters. All transcriptions were read line by line and the coding process was reiterated to assure the proper use of labels to address the subjects as mentioned by the respondents. The most insightful and compelling statements were translated into English and used as in-text citations, creating a considerable primary dataset. All the emerged codes have been grouped in some sub-themes. Some codes might fall into more than one category.
Table 3.3 shows a categorization of some of the sub-themes which emerged, organized according to the assessment of continuities and discontinuities with the Third Italy and the way they are distributed within the different empirical chapters. These sub-themes here mainly relate to the deductive part of the analysis aiming to test the initial hypothesis. For the description of the Fourth Italy instead, relying on the iterative process from grounded theory, some additional codes (i.e. as financing opportunities, social innovation, start-ups, entrepreneurial ecosystems, capitalism evolution etc.) have also emerged. Such codes have contributed gradually to adjust and focus the interview questionnaire, while advancing in the fieldwork. Finally, they became the building blocks of the narrative shaping the various sections of the three main empirical chapters (and themes) of this thesis.

3.5.4 Ethical concerns

This study has been approved by UCL Research Ethics Committee: Project ID Number: 8583/001. All the data collection, and in particular the interviews, have followed the UCL requirements and regulations. All the participants were given an information sheet before starting the questions. They were informed on the way data would have been treated and disseminated, the purposes of the research and the reasons for which it was carried out. None of the interviewees were forced to answer questions and they were all informed about the possibility to opt out or withdraw their participation at any point of time. Right after the delivery of the initial information, they were invited to sign a consent form, all of which have been collected and stored for the duration of
the research. A sample of the consent form and information sheet are included in Appendix A.

Interviews were recorded and consent was asked for it. Some participants decided not to be recorded and in that case, extensive notes were taken. In both cases, I was the only one to have access to the data. The information collected was used for the unique purpose of this research. All interviews were transcribed by myself, and all the deriving digital files were stored in an encrypted drive, that I was the only one to access. The whole procedure was undertaken in accordance with the Data Protection Act 1998. No sensitive information was requested and no protected categories were part of the research, lowering the ethical threats and concerns. Participants were entitled to request a final report on the data collection and analysis.

For the right to anonymity all proper names of individual participants and all info that could lead to the clear identification of people were also controlled. As shown in table 3.2, only their task, role or belonging institution were kept for research purposes. To do so, proper names have been replaced using acronyms and ID codes as also shown in table 3.2. The same procedure will be followed when publishing material from this research in dedicated academic journals.

3.6 Conclusions

This chapter has explained the methodology followed to unravel the story of the Fourth Italy and its peculiarities. A case study design has been used,
responding to the aim of testing the emergence of a new model of agglomeration following that of the industrial districts from the Third Italy. The single case chosen is the city of Rome. Testing the hypothesis and describing the feature of a Fourth Italy offered a number of challenges that also corresponded to the limitations offered to this methodology. Namely, the lack of available quantitative data and the necessity of building a primary dataset from scratch. The first challenge to overcome consisted of defining the sample of actors and firms, which were part of the interested set. To do so, a pilot survey and a small set of pilot interviews were undertaken. This pilot study has informed and helped the definition of the following steps of data collection. Most of the additional primary data was then been generated through a qualitative research, consisting in a set of semi-structured interviews led to the key representatives of the Roman ecosystem of innovation and defined through a process of snowball sampling. Data generated from this method were crossed with those coming to the registry of “innovative start-ups’ and an additional desk review to physically map this geography of innovation.

Under these circumstances, part of the task consisted in a comparative approach with the Third Italy of the industrial districts to highlight continuities and discontinuities. The second challenge regarded an iterative and explorative process to describe the new features and actors from the proposed new geographical model. Those two dimensions mirror the two main bodies of literature discussed in chapter 2 (agglomeration theory and cognitive-cultural capitalism) and the general contribution to knowledge provided by this thesis aiming to bridge them. The dual nature of the accomplished task is also
mirrored by the analytical approach that has been followed. On one side the
deductive approach of thematic analysis and on the other, the inductive and
more iterative approach of grounded theory, used to navigate the newness of
the Fourth Italy model.

The next chapters of this thesis correspond to the empirical answers provided
to various sub-research questions. Chapter 4 is the more descriptive one of
the three. It provides an account of the emerging trends from the pilot study
and presents the new professional actors of the Fourth Italy (i.e. makers, start-
ups and SSAs). After it, chapter 5 explains the spatial configuration of the
Roman ecosystem of innovation. Chapter 6 focuses on the institutional impact
and describe the structure and dynamics of the relating network. Finally,
chapter 7 discusses the implications of this thesis for policies, future research
horizons and theories.
4 The Fourth Italy: defining the actors and the features of the contemporary ecosystems of innovative enterprises.

4.1 Introduction

This first empirical chapter starts setting the scene of the Fourth Italy argument providing a descriptive analysis of the current nuclei of innovative potential at the scale of SMEs, identifying actors and stakeholders involved, and their key features. In chapter 2 we have seen how local economic development policies targeting SMEs are nowadays putting emphasis on start-ups and their innovative capacity to regenerate urban economies, especially in lagging economic contexts (Rossi, 2017; Rossi and Di Bella, 2017). The start-up panacea (Fiorentino, 2018; cf. Martin and Sunley, 2003) has invested a large part of both in the global North (e.g. the US or Europe), and developing countries (Phelps and Wijaya, 2016). The process reminds the diffusion of clusters following the model of the Third Italy first and of Silicon Valley afterwards. This renovated interest in urban entrepreneurialism has invested many different scientific fields - e.g. economics, planning, sociology, governance and policymaking.

The main challenge in defining the contemporary dynamics of agglomeration consists in targeting the type of activities and actors participating in it. Scott (2007) has described the latest challenges offered to cities using the label of “cognitive-cultural capitalism”, and depicting the new urban economies as a blend of firms operating within a sector mixing creative and cultural industries.
as well as ICT, KIBS and technology. The cross-sectorial approach of such firms has an impact on urbanization and innovation dynamics. The new framework, speculated by Scott, was supported by the diffusion of phenomena such as the Maker Movement grown till global recognition (Anderson, 2012; Dougherty, 2012) and the spread of co-working spaces and of other types of shared service accommodations (Capdevila, 2015; Schmidt et al., 2017). Those facilities support the new entrepreneurial and start-up culture symbolising an evolving urban labour pool and economy.

This chapter intends to expand on Scott’s definition by describing the seeds of this emergent urban economy and its actors. The phenomenon is observed in the wider economic and socio-political context of Italy. Empirical evidence for this chapter mainly come from the pilot survey undertaken in 2015 at the Maker Faire of Rome. This pilot study, illustrated in section 4.2, helped gasping the shifting conception of innovation and the main trends defining the new entrepreneurial ecosystems of innovation providing the base for a Fourth Italy model. The pilot interviews instead helped the identification of the other two main professional actors involved in this ecosystem: innovative start-ups and co-working spaces. The definition of key stakeholders is then complemented by an analysis of the measures and laws in place to tackle economic development and innovation at the national and regional scale. In section 4.3, I review the ideology and conceptual beliefs that move the professionals in the ecosystem, discussing the implications for the relating conception of innovation, capitalism and the new urban development trends. Finally, section 4.4 concludes the chapter with a brief discussion on the discourse and the
terminology used to address the modern agglomerations. The word ‘ecosystem’ seems more accurate than that of ‘cluster’ and surely far from the idea of ‘industrial district’.

4.2 Setting the scene: defining the key professionals of the new ecosystem of innovation in Rome.

This section defines and highlights the features of the key professionals involved in shaping this cognitive-cultural set of urban innovative entrepreneurs. The identification of the actors of the Roman innovation scene resulted from a snowball sampling process, which started since the pilot interviews to the key representatives of the trade association for crafts and SMEs, CNA of Rome, partner sponsor of this research. Additional points of reflection were offered by figures from the pilot survey led at Maker Faire: the main Roman event for innovative enterprises. The objective of this section is to offer a contextual dimension to the Fourth Italy looking for causality relations from its emergency and describing the surrounding historical and socio-economic context.

The advocates of the new entrepreneurs of innovation in Rome correspond to makers, start-ups and SSAs’ managers. They correspond to a close circle of people operating in an embedded system of informal linkages and untraded relations - or social capital dynamics - that had already characterized the Italian industrial districts’ milieu. They represent a series of activities that have settled in the Italian capital city within the last 5 to 6 years. Similar dynamics have been registered in other main Italian cities i.e. Milan, Turin, Bologna or Cagliari.
However, the case of Rome is even more ground-breaking, as the settlement of innovative firms represents a rupture with the historical economic path of the city’s economy, so far mainly based on the public sector and the construction industry (E1). The territory of Rome has never had a strong industrial dedication and, as such, it was not even part of the Third Italy. Some exception can be find in few pockets of land where some traditional craft ateliers or certain industrial areas resulting from state driven interventions to stimulate economic development are placed e.g. the two Roman techno-poles. However, the general downturn, bringing in struggles to provide jobs into the public sector (in what was already an oversized institutional machine), has put some additional pressure and hope in the creation and support of new entrepreneurs as a recovery mechanism.

This general tendency surely complies with the interventions and directions set at the national scale by the Italian central government to meet the economic growth requirements set by the EU, specifically targeting start-ups. Considering the specific case of Rome, the city is undergoing a deep political crisis and a general situation of economic stagnation, shaped by the *Mafia Capitale* scandal that has seen a string of frauds at the mayoral administrative level of the city. First the dramatic political uncertainties from 2015 and then the mayoral elections over the summer of 2016 have consistently influenced the research. A desire among the economic and regional authorities (Chamber of Commerce, trade associations, Lazio region and its various agencies) was highlighted to support and finance interventions helping the creation of a newer reputation for the city, far from the idea of public corruption offered by the news.
The organisation of the first Maker Faire and then the growing interest registered by the event among professionals, institutions, media and visitors, have certainly to be read in this general framework. It was therefore worth to investigate the fair as being the first alert of a changing scenario and of the new ferment investing the capital city. The next sections of this chapter will give an account of the groups of professionals that I have encountered: a) the Makers Movement b) innovative start-ups and SMEs c) Shared service accommodations' managers and other innovation enablers’ employees.

New working spaces, start-up policies and makers are all part of the same jigsaw, and all vital ingredients to understand the more complicated urban clustering phenomenon and the locational patterns of the new urban economy. The new agglomerations then sit at the junction between digital and physical networks and a new time-space dimension needs to be defined where the two scales could cross paths. In the new agglomerations, digital and global channels of information (e.g. forums, social networks and international virtual networks) work jointly with face-to-face relations at the local scale. The coexistence of the two dimensions is guaranteed in an urban location and it explains the increasing popularity of SSAs and international events.

The above mentioned key stakeholders of the new urban economy allow for flexible working and the cross-fertilisation of the two pipelines of knowledge (cf. Bathelt et al. 2004) but they also respond to austerity cuts and to globalisation trends seeing smaller identities tangled up in an array of multidimensional professional linkages. SSAs can nowadays provide support
in the development of business plans, the assessment of risks, the various administrative tasks or even the management of a failure (IN8; IN7; SSA3); finally, yet importantly, they could connect to venture capitalists (SSA6). Temporary clusters such as the Maker Faire and other similar events help crystalizing the cluster reputation other than allowing an accelerated spatial proximity in a constraint space and period of time. They need an urban settlement to be able to host big numbers of attendees and to provide the necessary branding appeal that attract investors. The next sections will analyse one by one the different jigsaw’s tiles: makers, start-ups and CWSs.

4.2.1 The Makers Movement and the democratization of innovation: a window of observation on the new entrepreneurial trends.

As introduced above, one of the key events that has stimulated the investigation over the Fourth Italy was the organization in Rome of the biggest Maker Faire out of the USA. The pilot survey undertaken at the 2015 edition has confirmed some of the key features of this group of new digital artisans, who, despite being only one of the key actors of the innovation scene, offer a valuable window on the emerging changes at the urban economic scale. The discussion around the Maker Movement will be unfolded by presenting findings from the survey, which help us understanding and defining some major traits of this cognitive-cultural sector. The survey brought to the surface the presence of both a flourishing community of makers and of the organisational support by the institutions for this event. According to M2, the organisation of this annual event in Rome was the result of:
“a lucky convergence of a set of circumstances: crisis necessity, presence of public authorities enabling the organization and the will of a key political stakeholder, close to the American experience and to mass-media channels for its dissemination”.

The situation offers a parallel to the origins of the Third Italy and the Americanism of the economy criticized by Gramsci in his assessment of the post-Fordist era, (Antonio and Bonanno, 2000; Brusco and Pezzini, 1990; Lovering, 2009). This comparison once more suggests the starting point of a new economic cycle needing a new identification model that could correspond to the Fourth Italy.

Despite the American influence though, the Maker Faire and makers in general are context dependent. Differently from the American edition – which started as an educational event mainly dedicated to DIY - the Italian (and European) edition of the Maker Faire has seen an overwhelming majority of professionals (82%) showcasing their product during the event. Interviewees M2 and F1 have commented on this difference attributing it to the socio-economic context of Italy. Craft and small sizes of enterprises are aspects that have always been central to the Italian economic culture however, with the general downturn the size has shrunk even further with an average of only four employees per firm, and the rocketing of free-lancing rates (ISTAT 2016). Even at the fair, the typical business’ size was small to micro. Four out of five of the surveyed firms had up to 10 employees. Among these, many declared that they were spin-offs of other existing businesses using the original premises to save funds while testing the new business model.
As confirmed by the interviews led at a later stage, data on the professional participation are in line with the main objective of the institutional organizers. They decided to offer support to the fair as an opportunity to relocate the economy of the city, creating an opportunity for the exposure and the attraction of new businesses and young professionals (Table 4.1 offers a summary of some of the key characteristics registered). Figures from the survey have
confirmed the trend, showing that almost half of the companies are very young having started their business within the last 2 years. The same purpose was also mirrored by the choice of the venues for the first three editions: respectively Palazzo dei Congressi in Eur, Auditorium Parco della Musica and finally the Sapienza University of Rome in 2015, creating a direct and formal link between universities and spin-off firms. This year the full capacity was reached and the venue has now changed to the official exhibition centre of the capital city. Chapter 6 of this thesis will specifically deal with the role of institutions in this process of innovative agglomeration creation.

4.2.1.1 Defining the sample of activities: makers comply to the cognitive-cultural sample set

![Pie chart showing distribution of activities and sectors represented in the makers' world.](image)

Figure 4.1 - The pie chart shows the distribution of activities and sectors represented in the makers' world. We might have the tendency to think that the activities covered by makers are all about digital technologies and electrical components but the reality is much more multifaceted than this. The Makers Movement touches upon a variety of
different sectors, incorporating the traditional activities from creative and cultural industries (cf. Markusen et al. 2008; Scott 2010) with an added flavour of more technological activities that include prototyping, software and its various applications. As shown in Figure 4.1 overall 43 % of the surveyed declared to be active in culturally related fields - almost equally split between creative activities, such as architecture and design and some more traditionally cultural ones, such as photography or education. The rest of the represented activities range from a predominant 28% of electrical, mechanical prototyping and robotics to a 6% of software coding and online services passing by a discrete 13% of materials and machineries components and solutions. On the one hand, this distribution confirms the speculated tendency towards a cross sectorial offer and the integration of technology and design. On the other hand, this endorses literature stating the obsolesce of the debates around creativity and it broadens the discussion on contemporary capitalism and its evolution (cf. Scott, 2014).

Among the respondents from this cross-sectorial set of activities, the concepts of competitiveness and innovation tended to overlap. When people were asked to name the competitive advantage of their products or services (see table 4.2), the answers could be mainly split into two: the uniqueness of the output (product or service offered) and the originality of the offer or its conception and production. Many respondents simply mentioned innovation (13%) in some cases adding details about the peculiar type of innovation they were offering (i.e. technical, logistic, design - overall 18%). To the customization and uniqueness trend instead applied justifications linked to the origin brand i.e.
‘Made in Italy’ (19%), followed by an adequate balance between quality and price (17%) or simply a high-quality offer (13%). Even here, the cross-sectorial collaboration of knowledge and skills, apt to offer an innovative solution, figured for 10% of the respondents as a good reason to be competitive. This quest for customisation and newness recalls literature announcing a new industrial revolution (Anderson, 2012; Birtchnell and Urry, 2016).

### Table 4.2. Definition of the Competitive Advantage of Product/Service Offered

<table>
<thead>
<tr>
<th>Competitive Advantage</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordability/price</td>
<td>17%</td>
</tr>
<tr>
<td>Quality</td>
<td>13%</td>
</tr>
<tr>
<td>Uniqueness</td>
<td>8%</td>
</tr>
<tr>
<td>Customization</td>
<td>8%</td>
</tr>
<tr>
<td>User friendly, accessibility</td>
<td>7%</td>
</tr>
<tr>
<td>Brand: ‘Made in Italy’</td>
<td>3%</td>
</tr>
<tr>
<td>Innovation (not defined)</td>
<td>13%</td>
</tr>
<tr>
<td>Cross-sectorial knowledge</td>
<td>10%</td>
</tr>
<tr>
<td>Technical innovation</td>
<td>10%</td>
</tr>
<tr>
<td>Social innovation</td>
<td>4%</td>
</tr>
<tr>
<td>Logistical innovation</td>
<td>3%</td>
</tr>
<tr>
<td>Design</td>
<td>1%</td>
</tr>
<tr>
<td>Environmental sustainability</td>
<td>3%</td>
</tr>
<tr>
<td>Fun</td>
<td>2%</td>
</tr>
<tr>
<td>Uniqueness in the output of the product/service</td>
<td>56%</td>
</tr>
<tr>
<td>Newness, originality of offer and its conception</td>
<td>40%</td>
</tr>
<tr>
<td>Environmental sustainability</td>
<td>3%</td>
</tr>
<tr>
<td>Fun</td>
<td>2%</td>
</tr>
</tbody>
</table>

Most importantly, the vertical integration of different skills to achieve a cross-sectorial offer of services and products is the essence of the idea of innovation led forward by makers. Innovation should be accessible to everyone and should produce new ways to make our everyday life easier: makers are
advocates of the democratization of innovation and technologies (interviewee M2 cf. Dougherty 2012; Anderson 2012).

Although the emergence of something new was even clearer while approaching the part of the questionnaire investigating some more traditional agglomeration theory’s discussions and aspects linked to the spillovers coming from an economy of scale. The survey included a section with questions more specifically addressing clients/suppliers dynamics, business generation and economic performances of the firms that the respondents often found unfitting for their activities. First, the boundaries between local, regional and national economies are more blurred for this new industry: most of the surveyed struggled to answer questions investigating the location of their suppliers and clients. In addition to that, the local dimension was often misinterpreted or identified with the national one. These answers suggest that the traditional relations with suppliers and the origin of the raw materials have changed: makers do not follow the same purchase mechanisms of traditional manufacturing industries.

Their relationship with the suppliers may vary and if they offer services or applications, they might not even have suppliers at all. They buy semi-assembled commodity parts locally from retailers or wholesalers, with items like semiconductor chips or minor components for 3D printers being produced somewhere else, for example in China or elsewhere by multinationals. If the main reasons of this shift – globalization of markets and new communication technologies - are clear, it also seems clear that these same processes have
important implications for classical understandings of agglomeration based on the importance of physical inter-linkages and untraded interdependencies (Storper, 1995), which appeared to have declined when compared to labour market and informational linkages (Phelps, 1992).

Their income is mostly generated on the number of items or products sold with a certain balance between national and international clients. Some indicated that they had contracts with institutions promoting the digital and creative economy in Rome, and an unexpected 5% declared income coming from the educational sector (cf. Anand and Watson, 2004; Wolf-Powers et al., 2017). Recently, both the USA and many other European countries, including Italy, have indeed promoted schools with integrated fab-labs allowing children to become familiar with the combined use of manual work and new technological machineries. These initiatives aim to create a new entrepreneurial culture and they spur the involvement and the direct employment of some makers in the likes of trainings for schools, help-desks for newcomer entrepreneurs and lifelong learning programs. As confirmed by one interviewee from a local institution, an intervention in the educational system aims to trigger changes also in the labour market. The evidence here points to the wider influence of the Maker Movement in the contemporary industrialization and urbanization processes.
Finally, the ‘glocal’ dimension\(^8\) of these activities justifies the urban nature of these new sectors (as it will be defined by several interviewees later on during this research data collection; see chapter 5 and 6). Those firms are very small so they are tied to their local context and to the fab-labs in which they operate, but they are also connected at the global scale through technological and informational channels. So even temporary clusters – as fairs and other major events – cover a crucial role in bridging local and global networks (cf. Bathelt et al. 2004).

4.2.1.2 Makers’ locational choices and urban revival

The main trend emerging from the survey, as seen in Table 4.1, is the urban character of makers. Cities are undoubtedly leading the digital fabrication scene as 72% of the surveyed innovators have chosen a central location for their activity. When given the chance to motivate their choice in an open answer, they gave reasons varying from accessibility and connectivity (such as easy access to public transports and car parking) to the traditional benefit coming from spatial proximity with similar firms, amenities, institutions and sometimes dwellings. However, the availability of an existing settlement let alone the choice of the general location prioritizing affordability and availability of spaces (almost 30% of respondents, as shown in figure 4.5). This final figure in particular highlights that we are talking about a changing geography of innovation but most of all that we are talking about an economic geography of the crisis.

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\(^8\) The debate around ‘glocalism’ refers in the planning field to the development of policies matching global and local needs and the way global and local elites and networks should interact in cities (see Swyngedouw, 1997; Swyngedouw and Kaïka, 2003).
The idea of cities “nursing new activities” is not new in literature (Duranton & Puga 2001; based on classics ideas from Jacobs 1969; Hoover & Vernon 1959). By definition, an innovation is something new, not proposed on the market before - weather this means service, applications or features added to a traditional product - and therefore, the physical interaction with both peers and potential clients allow the testing phase to be quicker (McCann, 2007). Despite the highly digital and technological contents of those activities might suggest that spatial proximity and physical contacts would no more be relevant to those firms, we are in a transitional phase of economic uncertainties where face-to-face contacts still matter (cf. Storper & Venables 2004). Especially in the establishment phase of those innovative businesses: personal exchanges are crucial for the survival of a start-up and its upgrade to a more mature stage and structure.

Figure 4.2 – The chart shows the locational choices among the Makers Movement as surveyed in the Maker Faire of Rome 2015. The majority of people declared to be working from the city centre.
Figure 4.3 – The chart shows the workspace preferences of makers: despite their digital orientation and the technologies they use, shared service accommodations have emerged as the preferential office premise among 43% of the respondents, with only 2% declaring not to have a real premises for their activity.

Figure 4.4 – The bar chart shows the speculated reasons for the locational choices of makers. For the most part of the respondents, the decision of settling their business in that particular part of the city is most of all a matter of availability and affordability of spaces.

Key changes have also been registered among the working spaces, with a predominance of SSAs: 43% of the respondents. The traditional office spaces seem to be less suitable for this type of innovative activities, especially at the early stages of their establishment. Despite the highly digital character or these sort of activities (online forums and communities renting a stall at the fair were
also part of the sample) only the 21% declared to work remotely from home or another space. A variety of themes emerged to justify this choice, mainly regarding the proximity with various amenities and infrastructures but also with other firms and professionals, especially if the surveyed were in SSA. Less common motivations were the availability of a premise in a precise area or affordability criteria. In some cases, even branding reasons were mentioned, given the wider exposure that an urban location might grant. Overall, the findings here confirm the salience of the traditional literature picturing cities as a diverse environment facilitating encounters and the exchange of ideas (Hoover and Vernon, 1959; Jacobs, 1984).

The confirmed centrality of cities and of their networks of trust is similar to what used to happen in the district milieu from the Third Italy. However, the pace and scope of linkages among the new cognitive-cultural enterprises is different from before, as it needs a "glocal" approach: both global in the scope and local in the support received and the ties established. The significance of this data has to be read in the necessities of social interactions and knowledge spillovers and with the reshuffling of the local and global barriers. On the one hand, the ‘new industrial revolution’ is supported by the new technological global channels of knowledge (cf. Anderson 2012; Bathelt et al. 2004). On the other hand, it is still through the urban buzz and trust relations that professionals build their contacts (Storper and Venables, 2004) being supported at the local level by the different institutions (Granovetter, 1985). This approach responds to the very small size of the enterprises, their initial small capital and high risks, and the crisis context in which they rise, but it also
explains the crucial role played by large international events - such as Maker Faire – where the creation of knowledge spillovers speeds up.

It could be argued that, the traditional factory from the industrial districts of the Third Italy has now in the Fourth Italy been replaced by SSAs. In the first model, the spatial proximity given by the industrial atmosphere constituted the important ingredient for their competitive advantages. In the Fourth Italy, it is the social proximity achieved at different time and scales in SSAs, temporary clusters and the local urban scale to activate spillovers effects. One of the main causes of this urban shift goes back to the changes occurred in the typology of products and in the manufacturing techniques advocated by makers with their new relations to suppliers and clients.

The surveyed makers contained a variety of different nationalities. 62% were Italian, mostly from Turin, Milan and Bologna and a 17% from Rome (taking into account that most of the Roman makers were employed in the organization of the fair thus were not renting a stall in it). The heterogeneity of origins shows that the highlighted urban renaissance can be generalized to other Italian and even European cities. The geography of this new type of innovation industry will be further detailed in chapter 5, expanding from the makers’ situation and taking into account all the different stakeholders.

4.2.1.3 Networks of trust and the importance of temporary clusters

Despite the highly innovative and technological character of the proposed products and services, these entrepreneurs still need above all to build ties and a professional network. This ‘new industrial revolution’ (Anderson 2012) is
still developing, as such it needs to overcome risks and uncertainties, by building a solid network of professional linkages [cf. cities nursing innovation idea from Duranton & Puga (2001)]. The urban buzz allows professionals to keep contact with both competitors and peers, institutions and clients (Storper & Venables 2004; Hutton 2010), granting also the necessary dialogue between users, designers, and makers. This urban dynamism is crucial for the coexistence of innovation, creative economy and entrepreneurial ventures. Then, the easy accessibility of the new making and customization techniques are compatible with the time-space compression or glocalisation most attainable in urban environments. The benefits coming from the institutional support and the local embeddedness (Granovetter 1985) remain a necessity to avoid isolation and generate financial and social opportunities. While the Internet and the other communication technologies, together with the adequate infrastructures offered by an urban location allow contacts at the international or global scale (cf. Simmie & Sennett 1999).

Attending the Maker Faire is a way to build professional linkages, test and improve the businesses. Among younger firms, it tends to be iterative: more than half of the surveyed businesses had already participated in at least one previous edition. Once the business has gained some maturity – with products or services solidly on the market - the participation in the fair loses significance. In this sense, the institutional conception of the event as a tool to give exposure and support to new businesses, has found some empirical confirmation. In line with this speculation comes the assessment of the final section of the survey,
investigating the personal expectations of the participants and the reasons behind the rent of a space to the fair.

According to my respondents, the main aims behind their participation to the fair was gaining professional linkages and testing their business. The questionnaire asked makers to rate from 1 to 5 a set of possible reasons. The results are graphed in figure 4.2, forty-eight per-cent of participants rated professional linkages as the most important reason for their presence at the fair. The possibility to increase sales or clients followed at 42%. Then, the possibility of improving exports, innovating products or gaining financing opportunities were rated as equally important. Recruiting additional labour seems instead to be the least of makers’ concerns. These findings suggest that once a business is mature, exposure and linkages are assessed according to different criteria, which are mainly related to marketing and market demand trends.

Figure 4.5 - Expectations of the Maker Faire of Rome 2015. Participants were asked to rate in a crescent scale from 1 to 5 the influence of a set of speculated reasons and expectations from owning a stall to the event.
‘Contacts’, ‘professional linkages’, ‘networking’, ‘promotion’, ‘updating’, ‘funding opportunities’ were some of the most recurring words when people were given the chance - at the end of the questionnaire - to openly name the subjective benefits expected from the event. Only two people among all surveyed mentioned ‘fun’. In this sense, the professionals’ expectations match the institutional intentions to create a new hub of innovation in the city of Rome.

The format of Maker Faire can reveal a lot about the country and context in which the event is organized. The results from the survey confirm the substantially contrasting character of the European and the American editions of the fair. As referred later by interviewee M2, a famous Roman maker and entrepreneur, in the USA the event is more a showcase for hobbyists and the DIY culture, while in Italy the event is conceived as a tool offered to young entrepreneurs by the public administration to give them exposure and support.

As spelled out in the previous section, a variety of nationalities were represented among the surveyed, showing that this urban centrality and the search for knowledge *spillovers* and professional linkages are independent from the nationality and culture of origin of stalls owners. This is not an exclusively Italian phenomenon. The fair acts as an accelerator for social exchanges, just like SSAs do, but at a bigger scale. The event enables professional collaborations to be built. *However, there is a sense in which this is a subtly different type of urban economy from the rather timeless one emphasised in some of the literature* (i.e. Glaeser, 2011).
This urban renaissance should be regarded jointly with the surrounding socio-political context and the economic struggles that are shaping it. So, it is rather to the accounts of Barber (2013) or Katz and Bradley (2013) that this type of innovation conforms. This is a discussion about entrepreneurs and small firms in a new sector that could shape the next wave of urban regenerations, but most of all it is a story of unhealthy economies and some attempts to recover.

A similar example could be found from the city of Detroit where makers’ communities are stronger than in other American cities (Rainwater, 2016). Perhaps for similar reasons, the Maker Movement has very often been compared to grass root movements: an expression that usually is associated with the political and sociological fields to refer to bottom-up processes or communities demanding rights or better life conditions in a context of inadequate or inattentive authorities. All findings here seems to suggest that, in contexts like Italy, marked by economic and political struggles, with governments failing to provide enough social security, makers give voice to a new hidden workforce in a new emergent economic sector (cf. Bathelt and Boggs, 2003).

Although makers are only one of the actors populating the set, the investigation led at this key event for Roman innovators has offered a valuable window of observation over the whole ecosystem of innovation of Rome. The first of these series of events was organized in 2013; since then, it has dramatically grown in size becoming increasingly integrated with supportive initiatives dedicated to start-up and hosting big multinational sponsors. In the last two years in particular, the event has also promoted job offers and other related initiatives.
linked to employment creation, and partnered by various national and regional public agencies such as: Italia Lavoro, Lazio Innova or Bic Lazio. The pilot has therefore been particularly useful to identify the key representatives for the following round of interviews and in highlighting the three key themes to be further investigated. The formers could be summarized in:

1) A new idea of innovation is shaping,
2) Skills and knowledge are mixing making even more difficult the categorization of the sector
3) Sizes of firms are shrinking even further.

Despite the highly digital features of those activities, cooperation and local embeddedness are still key to their development, which to an extent justifies the main finding of this pilot survey: makers have very clear locational choices and working spaces preferences. This set of assumptions led the following step of the research becoming the base to craft and structure the draft questionnaire for the set of interviews.

4.2.2 A registry for innovative start-ups and small medium sized enterprises (SMEs).

Since 2012 – a timeframe that also corresponds to the last political mandate – the Italian policies targeting economic development have increasingly focused attention on start-ups and new activities as a way to address economic stagnation and crisis. Those measures have mainly reflected some major European pressures and guidelines. In particular, the EU has crafted a number of place-based policies ought to support new entrepreneurial ventures as a way to re-instil economic growth in its member states (i.e. Smart Specialization
Strategy within the framework of the EU Cohesion Policy, and Entrepreneurship 2020 Action Plan). Under this influence, similar policies and measures specifically addressing start-ups have also appeared in Italy.

This ultimately has resulted in a twofold system of measures at the national scale set out by the Ministry of Economic Development (MiSE), aiming to tackle economic growth and young unemployment rates:

1) The creation of a registry for “innovative start-ups” held by the Chamber of Commerce, granting fiscal benefits to the subscribers (law n. 221 of the 17th of December 2012, derived from the DL 179/2012 “Decreto Crescita 2.0” from the 18th of October 2012.) The decree consists in various sections dedicated to the policy agenda for digital development and innovation in several economic fields. A second law has then given birth to a supplementary category of firms: the “innovative SMEs” (or PMI innovative) and to “certified incubators”. In particular, the SMEs category was created to accommodate the growth - in turnover and size - of start-ups allowing them to keep their fiscal benefits after the first five years of activity (“Investment Compact” law n. 33 of the 24th of March 2015 derived from the DL 3/2015 from the 24th of January 2015 tackling urgent matter for investment and finance).

2) A system of micro financing opportunities has been established – Fondo di Garanzia – granting funds for new entrepreneurial ventures, either as a spin-off of existing firms or for start-uppers either subscribed to the above register or not (created as a tool in 1996 and updated in 2012 by the Decree Law “Salva Italia” promulgated by MiSE).
Surely, start-ups already existed even before the set-up of this law, but they were not formally acknowledged, nor any kind of support was granted to new or innovative activities. The established system of incentives and loans, despite recent updates and adjustments, is quite similar to that developed during the 1970s and the 1980s in favour of the Third Italy’s firms and their innovative capacity as discussed in section 2.2.2 (Bagnasco, 2009; Brusco and Pezzini, 1990). Given the new digital approach and the changed specifications of what we nowadays consider as innovative activities, this system is not likely to tailor adequately the necessities of these new innovative firms.

Start-ups classified as innovative and therefore eligible to subscribe to the dedicated register and benefit from the relating fiscal incentives should fit into the following set of criteria (updated in February 2017):

- Respecting one of these three conditions: 15 % of annual income dedicated to R&D, or at least 1/3 of the employees holding a PhD degree or 2/3 of the partners holding a Master degree.
- Being new i.e. born within the last 5 years
- Having their headquarter in Italy or if in another EU member state holding at least productive branch in Italy
- Annual turnover lower than 5 million Euros
- The firms have retained earnings.
- Object of the activity regards technological innovation
- The firm is a spin-off of another one, or do not result from a fusion, division or failure of other similar firms.
The benefits that start-ups get once subscribed to the business registry mainly regards the stream-lining of the costs and bureaucratic procedures to open an activity, fiscal reductions over income taxes, incentives to hire employees at lower fiscal rates, incentives for the internationalization of the firm, and the reduction of the costs of failure (MiSE, 2017b).

Almost 50% of the relevant interviewees have criticized for different reasons the above classifying criteria for innovation (INS2; M1; M2; F1; INS8; SSA3; SSA7; E1; SSA4; F6; F7; SSA6; F8; E3). Most of the people involved in the debate were welcoming towards the existence of a form of support for start-ups even if not completely responding to their necessities. Criticisms were instead raised on the set of criteria defining the applicable firms. Some of the representatives accused them to be too loosely defined and too inclusive allowing sometimes even firms not innovative at all to fit in (F1; SSA3; SSA7; E3; SSA6). Some others claim that a proper definition of innovation is impossible and that the law should not restrict the benefits only to those start-ups fitting into some tricky governmental criteria (F1; SSA4; INS10; F7). The criticism was confirmed by the demographic of the visited start-up incubators and accelerator: only few of the firms here settled normally managed to be subscribed to that registry (SSA6, SSA7; F8). An example could be the Tecnopolo Tiburtino where only 27, against more than 120 firms in the whole consortium, are certified as ‘innovative start-ups’, despite even the presence of two certified incubators, one of which from a special agency of the region BIC Lazio (INS7commenting data dating back to July 2016).
SSA6, manager of the most important start-up accelerator in Rome, argues that the flaws of this law are mostly due to a lack of data storage and of a missing agglomeration’s awareness. “Legislators are always behind market’s dynamics” so, they are not aware of the real extension and of the scope of the innovation ecosystem of Rome (SSA6). The result is a policy tool way too vague, only referring to a general purpose of defining an “economic framework [that] is moving to support innovative start-ups not only as enterprises that could generate quickly billions in turnover, but simply as an element that could raise the employment rates for highly skilled individuals that have studied for that” (INS8). The real issue certainly is that those criteria restrict the scope of the phenomenon. The new activities which are to be taken into account as part of this emerging urban geography of innovation are not just ‘innovative start-ups’. They could be one of the facets of the new emerging economic sector and labour pool and as such, the relevant registry represents a valid starting point for the investigation. Notwithstanding the inclusion in the conceptual sample of the Fourth Italy of free-lancers (and makers), new firms’ spin-offs and all other cognitive-cultural activities not fitting in the ministerial categorization for innovative start-ups.

In this case, who are the average start-uppers? As emerged from the set of interviews, they are mostly young educated professionals, thus to a certain extent their identikit corresponds to the first item on the list of requirements of the registry. However, they could also match with the average makers’ profile. The way most of the business incubators and accelerators are set in Rome foresees a very close connection to research centres and universities. Some
spaces even arise as spin-offs of the formers, which explains the very young age of professionals and their educational profile. As explained by INS7, we could list the average start-uppers as:

- young professionals, up to 35 years old holding tech or scientific degrees,
- forming small innovative businesses from 1 to 4 employees on average (just like the majority of the firms surveyed within the Maker Faire – see paragraph 4.2.1),
- or generating spin-offs of existing firms wanting to develop some innovative products or services or to make available some space within their premises to host start-ups or simply new firms and therefore benefit from their new ideas.

The most typical specializations represented by the start-uppers according to SS7, are engineering and ICT with all their derived disciplines, which reflect the dedication of the most part of the Roman accelerator and incubators to digital services and apps, coherently with the regional guidelines.

The above-defined two main national lines of interventions mainly are intended to work and to be adapted at the regional scale. However, regions have also to respond and comply with the other guidelines and incentives coming from the EU regional policies (e.g. Lazio POR FESR 2014 – 2020). In particular, the Lazio region has one of the highest R&D expenditure in Italy (EUROSTAT, 2015; cf. Rodríguez-Pose and Crescenzi, 2008). Here most of the efforts are canalized towards a set of interventions targeting start-ups and the digital
innovation industry. As confirmed by an interviewed member of the regional board in charge of economic development:

“the current regional administration has given a clear direction to the Lazio region, linked to Europe and aiming to transform it in a region for innovation. It is sufficient to look at its Smart Specialization Strategy (S3) [...] the documents makes some sharp choices: [...] relocating the regional industry towards activities with higher value added in innovative services; consolidating R&D expenditures; connecting SMEs with big corporations and research centres. Around these choices, some concrete political actions [are made] such as financial support, technical assistance, provision of spaces, [teaching] the values of entrepreneurialism since school age, supporting events for innovation. If I had to identify the key specific objectives I would say: a) giving a new strategic configuration to the Lazio region in the view of innovation and in an open dialogue with all stakeholders, b) help the existent realities to grow c) creating new entrepreneurs and jobs.” (INS11)

An additional desk review has clarified the practical results of this strategy, which consist in translating most of the regional R&D expenditure to implement the following list of actions:

1) Micro-financing allocation
2) Providing working spaces and venues to host shared service accommodations
3) Providing enabling amenities, agencies and services such as trainings, educational support, or acceleration and incubation programs (intervention that sometimes overlaps with number 2).

4) Organizing dedicated events and fairs e.g. the Maker Faire.

Finally, certain measures aim to target start-ups even at the local scale of the municipal authority – Comune di Roma – and even at the boroughs’ level – Municipio. Most of the times, they tend to overlap with the above measures, even if implemented by different public authorities, showing an underlining institutional fragmentation. However, agreements made at this particular scale are largely relying on informality. The initiatives in place are still quite disconnected or not systematically regulated.

A final remark goes to the registry for “certified start-ups incubators” established in 2015. This measure has a value mostly as it formally acknowledges the role of incubators as “enabling” professionals of innovation (cf. Wolf-Powers et al. (2017). The sample of enablers, could however be enlarged to the full inclusion of all types of SSAs. A full review of all the emerging intermediaries and on the role of institutions in this process of innovation creation will be provided in Chapter 6 of this thesis. Surely this system of enabling facilities to support the start-up pipelines brings a message of change in the institutional way of tackling economic growth, but being also a symptom of a changing labour market going towards the neo-liberalization of social securities (cf. Rossi & Di Bella (2017). Shared service
accommodations of various typologies, including users and managers, are the last category to be analysed in this record of Roman actors of innovation.

4.2.3 Shared Service Accommodations (SSAs) as emergent actors of innovation

SSAs soon emerged as key actors of innovation in the Roman ecosystem. Other than as demonstrated by the survey, they were identified as key representatives to be taken into account in the study ever since the very first pilot interview. SSAs came as a novelty in Rome. In 2015, at the start of this research, there were only few. Very often, they replicated successful ideas imported from abroad as the result of experiences that the managers made in the first place (e.g. SSA4 and SSA5). More than as a real estate product SSAs initially emerged in Rome as a social innovation manifesto, tackling local issues of social inequalities and low employment rates. Most of those spaces were set up by professionals in the creative industry (e.g. advertisement, design and communication agencies), in a moment when creative jobs were poorly paid and suffering from the general downturn of the city. Here-hence, the necessity for those free-lancers to cut on rental costs by sharing the working space with other similar professionals with which they could even build collaborations (SSA1).

These spaces were mainly settled in derelict public buildings, displaying a strong political and social ideology. Supported by elected members of the local boroughs in some of the most progressive areas of Rome, the first experimental spaces were settled in the neighbourhoods of Garbatella and
Centocelle (e.g. respectively the two co-workings of Millepiani and L’Alveare that still exist). Soon enough this phenomenon started to blend with the other innovative ventures and with the start-ups universe, generating a variety of different types of spaces. The lack of dedicated governance and the bottom-up nature of most of the initial experiences stimulated an incredible variety of managerial and formal structures and regulations (more details are given in Chapter 5 - section 5.4.1). Rome works as a catchment area for most of the South of Italy: many people come to study in the capital and then decide to remain and set up their own enterprise profiting from the presence of enabling facilities. This migration factor is an influential one for the development of such spaces (SSA2).

The background and the education of an SSA user and that of their managers tend to overlap. The vast majority of people gravitating around those spaces, and in general around the Roman innovation scene, holds higher education degrees, some of which even at the doctoral level (e.g. M1; SSA4; E3; F7). Especially for the first SSAs’ experiences, emerged from the bottom-up, who decided to set up a fab-lab or any other type of co-working space was usually a maker or a professional in sector himself in the first place, willing to experiment with the new technologies at lower costs. Since the first co-working space appeared in Garbatella in 2014, Rome now counts more than 40 spaces some of which have only real estate purposes and therefore less local embeddedness. These first experiences are therefore, still the most representative ones to understand the target and the ideology of the correspondent group of professionals. Normally the set of skills required to set
up an SSA is quite mixed and it includes at least one person active in one of the traditional sectors of creative industries, and someone displaying good skills in communication for the dissemination of the value-added that they produce at the social scale (SSA1; SSA2).

Even in the informal environment of Rome, SSAs are very often associated with educational programs or they are endowed with spaces of incubation and acceleration for start-ups and new enterprises (cf. Gertner and Mack, 2017; Kalil and Rodriguez, 2015). Their educational dimension and their connections to universities define, no matter the typology of space, a clear set of average users:

- students or early career professionals that have just finished university’s degrees needing to test ideas for setting up an activity or while finding a job that suits them,
- informal groups of professionals working together on a specific project,
- micro enterprises or free-lancers looking for professional linkages,
- people who have recently lost their jobs and wish to professionally relocate themselves (SSA1; M1). A big part in their setting up requirements stands therefore in recreating a welcoming and cosy environment designed to enhance social proximity and interaction (INS6; SSA2; SSA3; SSA5 cf. Brown, 2017; Parrino, 2015; Spinuzzi, 2012).

To a certain extent, even the wide development of SSAs is the result of a lagging economic framework. Most of those spaces were set up to
accommodate the necessity of flexible office spaces responding to increasing rates of project-based jobs rather than traditional ones. Once taken a university degree, many young generations of Italians are not ready for or not matching the limited offers available on the job market. In this context, those spaces have emerged as the solution to cover the gap left between the end of a university program and the entrance in the job market. They are a novelty emerged as a response to a critical situation (cf. Bathelt and Boggs, 2003).

"Italy is [one of the] countries with the biggest number of fab-labs in Europe, it is the country where this trend has developed more. [...] If you look at the integration of those spaces with the economic tissue either real or prospective, in Italy [those ties are] more developed. [Here this] topic [...] gathers the attention of the Chambers of Commerce and of municipal authorities, while abroad [fab-labs] are [creative] laboratories [...] but they do not have any socio-economic objective. [...] In the USA it is a matter of hobbies and privates, it does not aim to have any economic role" (M2).

Those spaces are very context dependent in their entrepreneurial orientation. Their embeddedness to the surrounding spatial context recalls some dynamics from the traditional industrial districts.

Under the effect of the economic crisis and due to the very small size of firms in this urban ecosystem, the crucial reason to settle in a SSA stands in the necessity of becoming part of a physical network. Most of the actors involved in this agglomeration of innovative activities in the capital city seemed to know each other or to have cooperated at some point. The entrance in a local
community is the most requested facility among users looking to beneficiate from a co-working space in Rome (SSA1). Reasons brought from the managers to support the argument (SSA1; F1; SSA3; SSA4; SSA6; E3) matched those of the users (F2; F3; F4; F5; F6; F7). F1 in particular reported that:

“The industrial district has exploded but today more than ever networks are important, […] we are in a global market but the spaces where [innovation] processes happen are fundamental and they need to be coherent with the social and cultural identity of your entrepreneurial project. Therefore traditional offices [are not suitable anymore]” (F1).

We could argue that the new working spaces, and the sense of community they provide, deliver at a smaller scale the same industrial atmosphere that was granted within the industrial district milieu of the Third Italy. Firms are getting smaller to the point of being made by individual professionals, looking for spaces of aggregation. Those new amenities correspond to SSAs.

To a certain extent, this necessity for aggregation is not much different from what used to happen within unions and consortiums at the time of districts. Here, until the early 2000s, firms’ representatives used to gather to coordinate claims and requests for common interests and needs. The urban and more politically oriented equivalent for social proximity and intellectual gathering was, especially during the 1980s and 1990s, the centro sociale (social centre). Both trade unions and social centres have faded losing most of their social value in the current post-political era. However, especially in moments of crisis
and institutional fragmentation, associations and cooperation are keys to the success of new bottom-up trend when especially these are still based on informality and untraded relations. Among literature in agglomeration theory a similar situation is accounted for traditional cases from the Third Italy (Pyke et al., 1990, chaps 8–10). SSAs are nowadays replacing the above mentioned associations allowing political ideologies and knowledge spillovers to meet.

4.3 The Fourth Italy: the new perspectives for urban economies and the relating entrepreneurial labour pooling.

4.3.1 A new conception of innovation targeting small firms and the associated debate on the evolution of capitalism.

Many of the interviewees mentioned a new conception of innovation led by small businesses settling in urban areas. This geography of innovation is different from that of multinational corporations or big industries which has been extensively tackled by existing literature in economic geography (Archibugi and Iammarino, 2002; Cantwell, 1989; Iammarino and Cantwell, 2003). Here, we are looking at small firms, sometimes even smaller than the manufacturing firms that made up the core of the Third Italy. The new process of agglomeration has less to do with technological innovation or radical innovation but with an incremental type of innovation.

Makers, for instance, engage in ‘additive manufacturing’: they assemble existing knowledge and solutions in a novel and valuable manner that makes
their offer unique. A similar set of considerations applies to start-ups in the digital sector nurtured by incubators and accelerator spaces. Quoting the words of INS8, from an institutional and educational based incubator space:

“[These are] innovative enterprises but also traditional enterprises that are able to shape their idea in an innovative way to become more competitive on the market. They are not necessarily disruptive ideas creating radical innovation, though they need to have that innovative element so that they can become competitive enough [to survive] on the market and maybe [even] to open up to foreign markets.”

In other words, the type of innovation produced here is not necessarily meant to generate new products, but rather to identify gaps in the market and fill them (INS8).

In larger firms, the attempt to generate innovation of whichever type is filled by dedicating resources to R&D. Small firms usually do not have adequate resources or expertise to engage in formal R&D. They therefore cover the gap internally if they have the relevant skills or they turn to universities, research centres and other public facilities (INS7). Several of the selected Roman representatives, also pointed out the high speed of those particular innovation processes. Most of them associated it with the pace of technological development and means of communication, but also with the young age of entrepreneurs gravitating around the Roman innovation buzz (INS11; E3; E1; INS7; E2).
Some other respondents referred to “a wider conception of innovation that includes the social entrepreneurship and the public administration. A renovation of this former is crucial especially to keep alive the new innovative services and make sure they work properly over time” (INS6). In this perspective, innovation assumes the meaning of providing new services for a blocked and inefficient bureaucratic machine, with start-ups proposing services to cover this gap and reform the system, although these are not always accepted. M1 stated: “nowadays innovation means connection”. For these professionals and institutions, producing innovation becomes most of all a matter of bridging different fields and enabling connections and linkages. In this sense, the enabling role of SSAs, bridging different skills and knowledge, in enhancing this type of innovation becomes clearer.

As confirmed by several interviewees, the activities participating in this new type of urban agglomeration - and the associated conception of innovation - are defined by the “contamination” of cultural contents and technology (INS8; SSA7; E1; SSA1; E2). As also shown by the results of the pilot survey (see pie chart in figure 4.1), the innovative features of those new entrepreneurs lies in their cross-sectorial knowledge and skills. At the urban scale we cannot anymore talk about ‘creativity’ standing alone, as theorized by Scott (2008) in the framework of cognitive-cultural capitalism and the associated processes of economic production. Equally, talking about ‘innovation’ alone would be an understatement. A certain technological predisposition is undeniable; we are not dealing with traditional economic sectors such as traditional manufacturing or agriculture, although those are all activities endowed with some basic
competencies of ICT, communication and electronics (INS7). However, it is the way they blend them with other cultural and traditional craft sectors that determines whether they are able to produce innovation or not.

The applicability of Scott’s theoretical framework was further confirmed by the words of INS11, a regional elected member in charge of innovation policies and economic growth. He mentions creativity as one of the key drivers of regional development policies in the Lazio region, both influenced by the European guidelines and the local territorial capabilities of the city of Rome, but then he also identifies innovation in the capacity of bridging different fields:

“Creativity is an extraordinary catalyst of transformation both for enterprises and public authorities. For instance, the most innovative innovation in the public sector comes from experiences of integrated design. The key concept is that of knowledge spillover. Research tells us that a traditional enterprise using creativity – either in the design or in the communication sector – becomes more productive and competitive. However, it is in the dialogue between the different disciplines that resides a great opportunity for development. We [as regional authority] need to chase it. […] For now, we have done it by concentrating on financing for start-ups, support to business incubation, promotion of a regional creative class support to events and dedicated trade fairs. […] The future should foresee the creation of places dedicated to those firms, a targeted program for their internationalization, the establishment of connections with other cities and regions.” (INS11)
In terms of governance, his ideas might not be very new, however it is interesting to underline the geographical focus of the interview. Despite being a regional officer, he was focused on the city of Rome, assuming that its economic diversity acts as the engine for future regional growth and innovation.

The association between Innovation creation and agglomeration is not new. However, in the district *milieu* innovation resided in the competitive cooperation stimulated by the industrial atmosphere and the spatial proximity of firms (Bagnasco, 2009, p. 222), while for the emerging Fourth Italy those relations have changed.

“[Despite] the great Italian potential in manufacturing that makes us competitive on customized solutions with any type of machineries [...] the industrial district [model] has disappeared, it’s exploded. But now like ever networks are important” (F1)

Global markets and means of communications have significantly changed the way innovation is created. The former have accelerated the pace of technology and shortened the product lifecycle. This meant greater customization, the need for vertical integration rather than horizontal specialization, but also the necessity of social proximity given the small scale of the firms involved.

Moreover, in another analogy to the Third Italy, which emerged in another transitional phase for economic geography, even discussions on the new type of agglomerations implied some deeper ideological reflections on the evolution of capitalism. Especially among the Roman makers’ environment, the idea of
the democratization of technology and bottom-up innovation has to be seen in a general conception of post-capitalist ways of production [see Gramsci (1968) and Lovering (2009) for the ideology that led to the development of the industrial district model in the post-Fordist society].

F1, maker and member of the Democratic Party, placed this industrial revolution and the associated ideological movement “somewhere in-between Mason (2015) and Moretti (2012)”. He defines the new conception of innovation with the following words:

“If I have a passion for additive manufacturing and I invent OLO,⁹ that is a technological innovation but I have invented nor the mobile phone nor [3D printing]. It is a product that was born by the sum of those [two] technologies with an innovative design; it is a new generation of products that threatens all traditional products. The rule in this market is [that the product] with the most ‘social’, the most competitive, the most economical and with the highest quality features can re-format incredibly fast the whole market in its image. With a speed that was unimaginable for [traditional] Capitalism. […] Before beating General Motors on the market you had to work hard, nowadays Amazon has burned out most the global distribution channels in a few months - not even years. Capitalism still struggles with this [evolution] […] the costs of innovation is not quantifiable with traditional measures, you might invest 400 to 500 million Euros

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⁹ OLO is a portable 3D printer that can be programmed by mobile phones.
in R&D and the start-up next to you has the solution that you could not find” (F1).

The interviewee believes that the traditional monopoly of innovation held by big multinationals is changing. To support his claim he uses the example of the growing interest of big corporations, like Google and other tech giants, to attract and incubate start-ups. However, rather than affecting traditional multinationals’ behaviour on the market, the emerging phenomenon labelled in this thesis as Fourth Italy has an impact mostly on small-scale firms, highlighting that innovation dynamics are nowadays split between small and big scale.

In Rome, the identified ideological approaches are twofold and split between makers’ and start-ups’ worlds. The first cohort is more socially oriented producing either actual goods or social services. Starting from the self-definition of their activity, makers mostly do not like to call themselves “entrepreneurs”, but they tend to prefer the label of “innovators” or even to specify that they are “social innovators” and they care to become a “social enterprise”. For this reason, they tend to bond with local economic development or social matters. The second trend instead, more linked to the start-up world, and targeting venture capital, has a more corporate-oriented dimension. Those start-ups usually do not produce any physical goods but they develop digital apps or services, often targeting the public sector as a client and offering innovative solutions to ease public procedures. Their concept of innovation can be explained through the role of facilities like incubators and accelerators, helping the development of the contemporary
entrepreneurial class. Those places - usually set up by people that have previously worked in MNEs or Italian centralised major corporations - are becoming an important component of the contemporary urban clusters of innovation.

To position the two groups in the theoretical debate on evolutionary scenarios for Capitalism we could argue that, in both cases, the Marshallian ideas that were so relevant to the framework of the industrial districts have been overcome. The first ideological group emphasized concepts of self-production to overcome the traditional dynamics of capitalist production. The debate includes references to the role and intervention of the State on innovation creation, appealing to Mason (2015). Some of the most radical thinkers bring forward this ideological reaction to traditional capitalism such as centralized monopolies of multinational corporations (SSA3; F1; SSA4). They criticize the absorption of ideas and the centralization of the economy by MNEs with consequently less value added creation at the local scale, taking as an example the issues raised by sharing economy giants such as Airbnb or Uber (SSA3). The situation recalls the post-Gramscian ideology that led to the Third Italy, except that here global multinational corporations have replaced the state-led monopolies (from the regime).

Yet the general perception is that this type of more locally accessible process of innovation creation will not change the economy globally, but it will rather try to mitigate and contrast the disruptive effects of global production networks over the development of local resources. This discussion included the
definition of the current urban economy promoted by makers and the associated entrepreneurs as a “horizontal economy” or “an evolved sharing economy” allowing the sharing not only of the technologies but also of their conception, design and implementation. Theoretically, it can be associated to sociological debates raised by Jacobs and the idea of spillovers. Start-uppers instead, focussed more on the Schumpeterian approach to ‘creative destruction’ triggered by the inventiveness and initiative of entrepreneurs. In this case, a more neo-liberal institutional approach to labour pooling opens to positions such that of Mazzuccato (2013) which identifies the entrepreneurial role of the State in crafting economic policies to support innovation.

4.3.2 The new agglomerations as a reaction to a neo-liberal institutional approach to the job market and the new perspectives for governance.

The development of such a peculiar conception of innovation through start-ups, shared service accommodation or makers is a response to crisis. Two third of the interviewees mentioned the word ‘crisis’ to address the new phenomenon of agglomeration and its development. In addition, many interviewees also shared the idea that both the emergence of the Makers Movement and the growing number of start-ups are the result of changing dynamics in the general labour market, with increasing rates of project-driven jobs (INS4; M1; F1; SSA3; F2; SSA5; F5; F7).

“Free-lancers are excluded from any protected category, but they have calculated that in the USA for instance by 2050 they will correspond to half of the employed population. Co-working spaces
are helping employment policies to solve unemployment issues without affecting public expenditure. They offer training and education and they create knowledge and a network.” (SSA1)

These two ingredients suggest that this process of innovation and diversification of regional activities was triggered by the lack of traditional jobs and social security in traditional economic sectors.

On the subject of innovation rising from contexts of crisis and referring to the case of Rome, SSA6 argued:

“As shown by the research led by the Kaufmann foundation - start-ups statistically arise in crisis periods. […] In Rome [we are in that situation] surely at the political and industrial level, Rome got poorer for [the lack of] public administration jobs, but also because a lot of corporations have left first for Milan and then for London, the opening of international stock markets, [e.g.] Lottomatica went to New York fusing with GiTech, Octotelematics moved to London […]. Many multinationals have closed their Roman branch, prioritizing Milan, and even Milan is now losing ground compared to the rest of Europe. […] [Only] the small entrepreneurs can survive. […] Rome is a city that is changing a lot, there are a lot of opportunities and a young class of entrepreneurs is growing, but we should wait another 10 years to see the results [and properly talk about innovation].”

(M1)

Ultimately, this is a story of job losses and big corporations cutting inefficient branches. Start-ups should not be seen as an economic panacea (SSA3; F1;
SSA6). They are a sign of changes in the traditional capitalistic dynamics, but they also tend to be a mitigating measure to handle the lack of adequate economic development policies and to provide jobs encouraging private ventures and investors. Ultimately, the start-up world discloses a neo-liberal approach to labour pooling.

Certain multiplier effects typical of agglomerations already exist. E3 declared that SSAs and start-ups are now growing in number and gaining importance in Rome under the push of the funding made available by the EU. Some others see a correlation between the location of the first CWSs, the clustering of innovative activities in that specific area, and the position of the local authority in the borough (INS2; INS3). However, a real awareness of the existence of a cluster is still missing in the capital city.

Some respondents referred to ‘a cluster of innovation’ or even to ‘a new economic sector’ as still “embryonic” (i.e. SSA3). E2 in particular argued:

“I strongly believe in the start-up phenomenon and I work to support it but not so much because of their economic value […] [but rather for their] ideological value […] but we cannot give too much importance to the trend by thinking that they would rescue the world. One in 10 goes bankrupt; one in a million becomes Google. […] it’s the educational aspect of it that I like”.

Despite the perhaps too simplistic approach of E2, a similar idea was also shared by other interviewees (e.g. E1 or SSA3) arguing that makers and start-
uppers are important if we see them in the perspective of an economy that starts to move again after a period of stagnation.

Even if they will not develop ground-breaking discoveries, they are sowing the seeds for new activities and a new economic sector in the city. We will have to wait to quantify the actual economic growth and regional income brought by these seeds of innovation. A lot now depends on the institutional interventions taken on the subject (see chapter 6). However, since this phenomenon is in the early stages, not everyone has the same awareness of its scope and possible development, except for acknowledging that it is somehow related to a lagging economic and political condition.

In these urban clusters of small innovative enterprises, much is still left to informality. As explained in the case of SSAs, these activities very often start as ideas imported from abroad based on personal experiences made by the professionals. However, it is a different process than that of the high-tech innovations typical of the 'new Argonauts' learning from and emulating Silicon Valley (Saxenian, 2006). Because the type of innovation described here arises as a reaction to crisis or to a stagnating economy (SS1; SSA3), the political framework is also important.

To a certain extent, we are observing a context dependent economy:

“the various vertical trends of innovation are developed on an existent territorial economy” (F1).
Some of the interviewed professionals believe that the territorial and economic peculiarities of each city determine the field that is most prone to lead to innovation locally. Makers already have demonstrated that they are a context dependent movement; in the USA the movement started targeting highly skilled urban hobbyists but it then stuck to those places needing to regenerate their economy by reintroducing manufacturing and new enterprises (Kalil and Rodriguez, 2015; Van Holm, 2017). Once again, a twofold dimension needs to be considered to analyse these small firms and their networks. On the one side, they need to be connected at the global scale of knowledge flows but then on the other side there is a jump in their network to the local scale of their local embeddedness (see also diagram in figure 6.1). This approach implies an innovation conception tangled up with geographical and cultural constraints.

The new type of agglomerations settle in cities like Rome because there are the relevant physical infrastructures, but:

“[Professionals] do not have an adequate network of collaborations that determine the birth of an innovation centre and its efficiency. Without the city [governance] we have the ingredients but not the recipe.”

F1 goes on to explain that the city should make spaces available for the innovators and creatives and it should apply a strategic view for the regeneration of places hosting innovative businesses. He criticizes the approach taken so far by the local authorities:
“At the moment we have public spaces such as public fab-labs which have good locations but mainly target kids and schools with lesser impact on economic growth. Then we have supply chains located in places like the Tiburtina Valley which are not coherent with this type of innovation”.

In other words, places and the urban environment are crucial to this small-scale innovation, but also governance matters and the way the city reacts with a coherent strategy for the development of an adequate and supporting ecosystem.

With an articulated answer, illustrating the idea of innovation in Rome, F1 expressed the necessity of developing new and targeted governance tools:

“Makers, co-working spaces, fab-labs, social entrepreneurs, are the most dynamic in the city. However, this do not mean that they are already an ecosystem of satellite activities. […] Measuring the impact of those realities is very difficult [with traditional econometrics]; we should find a new metric. I think we are still in an embryonic phase. There is a group of people that is bringing changes, although having a good team does not mean that you will win the match. The economic return of those activities is still low. Talent Garden has a more solid economic base and a different target. The other spaces emerged from the bottom-up instead, need to deal with economic uncertainty. Ad hoc financing opportunities have been few. Unlike in the USA, the public sector and the regional
authority have not contributed much and this is important for the start-up [phenomenon]" (SSA3).

This statement confirms the identification of the actors of innovations in Rome as well as the necessity of the development of a new institutional and scholarly approach to assessing the effects of those agglomerations. Here, global dynamics coexist with local embeddedness and a strong network of untraded relations (cf. Brenner and Theodore, 2002; Granovetter, 1985).

A set of more tailored local governance tools to define the role of local hubs such as SSAs, and then a coherent strategy at the city scale to connect the satellites of the ecosystems are needed. All regional development policies should be coordinated by a national economic strategy that selects the Fourth Italy as a model and replicates it in most national urban centres, just as used to happen in the Third Italy. In this sense, the many similarities that can still be found between the actual economic policies targeting start-ups and those applied to the Italian industrial districts, are not a good precedent but rather suggest that an update of those tools is needed.

4.4 Discourse and terminology: from ‘clusters’ to ‘entrepreneurial ecosystems’

There is a general vagueness and a very heterogeneous terminology to address groups of innovative businesses in the Italian capital city. This verbal fragmentation recurs also in the different way the makers’ world - more bottom-up - and the more sophisticated universe of those gravitating around start-ups address different facets of the same phenomenon and their professional
identity. The general confusion and the struggles found in addressing and giving a proper definition to the type of agglomeration that we are observing, surely makes this investigation worthwhile. The use of terminology referring to the new agglomerations helps to understand the scope and therefore the impact that those activities might have on the built environment and on processes of urban regeneration. This section clarifies the way interviewees have identified the phenomenon. Perspectives vary between the world of makers and start-ups, revealing a path dependency between the use of certain terms and the innovation goals of the different groups, which usually match the cultural and social heritage of their neighbourhood.

The empirical findings from the pilot have shown the volatility and the difficulties to address the new economic sector given its cross-sectorial approach and the vast array of available definitions, that ultimately all converge in the wider framework of cognitive-cultural capitalism (Scott, 2014, 2008). Section 2.4.1 highlighted how a similar struggle shaped the debate around creative and cultural industries. The lack of a well-defined sectorial label proves the lack of proper planning policies to tackle it given its bottom-up emergence. In addition to those conceptual meanings, the highlighted gap also demonstrates the novelty and the relevance of this research in understanding the current urban challenges and a phenomenon of agglomeration still at its early stages. However, a number of words tended to recur while referring to the agglomeration, such as “ecosystem”, “network” or “hub”. The most knowledgeable interviewees tended to refer to “industrial districts” as an old economic model, that has ceased to be innovative (F1; M2; E2). The few
interviewees who approached the topic from a more erudite angle tended to consider the relating agglomeration model as obsolete and inappropriate (E2; F1; SSA7; M2). Hardly anybody seemed to be referring to the concept of “cluster” to define the contemporary concentrations of innovative firms.

The presence of a recurring discourse proves firstly the existence of a sense of community, other than just revealing the establishment of a physical network of professionals. The word “network” was indeed mentioned by almost all interviewees regardless of their category and socio-cultural background. They usually refer to a “network” of innovation in Rome to which all the “creative professionals” and “innovative firms” belong, hinting at a considerable component of trust and social capital in their relations. People need to feel part of a “community”, either of makers or creative/innovative free-lancers or even users of a CWSs. Very often the word ‘community’ is used in its original English form (i.e. M4; SSA7; INS8). This component naturally brings about a relation of continuity between the ‘industrial atmosphere’ from the Third Italy and the ‘urban buzz’ from the Fourth.

In the wake of the resemblance with the industrial district atmosphere, “cooperation” (M3) and “collaboration” (SSA6) are recurring words among the Roman professionals. They are usually of common usage on agglomeration related matters. However, in this case the word “contamination” was extensively used especially among people gravitating around the SSAs world (SSA1; SSA7; INS8; E2). Similar reasoning applies to terms like “contamination” or “hybridization” (INS8; SSA7; E1; SSA1; E2) of knowledge
and skills. Both words refer to the mixture of expertise, the cross-sectorial knowledge and the interaction required to work in those innovative businesses and to the possibilities offered by CWSs. However, more in general they reflect the peculiarities of the vertical integration and the flexibility made possible by an urban environment.

Coming to this final point, even the word “flexibility” tended to recur as a defining characteristic to describe the set of firms, products, jobs, professionals and even working spaces (F1; INS8; SSA3; F2; SSA3; M3; F4). It is a different type of flexibility from the ‘flexible specialization’ of districts. Rather than referring to manufacturing techniques, it refers to the social conditions of the contemporary labour force. It is a flexibility stemming from the economic crisis and the uncertainties of social security. It responds to the necessity to face the precariousness, the unforeseen and the limitation of available finances in a resilient way. A similar story applies to the recurring concept of ‘proximity’, which has now switched from its spatial meaning typical of traditional industrial districts to a more social one (Boschma, 2005b).

Differences in the most common terminology also disclosed the different socio-political orientations and aims of the various professionals. Two main orientations to innovation arose with different impacts on the city: one grassroots group of innovators and another more corporate oriented. Based on this distinction, similar concepts can assume slightly different implications and reveal different attitudes within the two groups. The first one corresponds to the more left-wing oriented set of makers and other bottom-up experiences.
They believe in the creation of social “networks” (M1; SSA1) as the key to overcoming the physical “fragmentation” of the city and its related issues and socio-economic barriers. Other keywords frequently mentioned among this group include “social innovation” (F9, SSA1, M1, SSA3, SSA4) in association with “urban regeneration” (SSA1; SSA5; INS6; INS9; INS11), frequently associated with the role of CWSs and the benefits they generate for the built environment. In line with their social claims and political ideologies people from this first group generally do not tend - nor like - to refer to themselves as “entrepreneurs” but rather prefer using the label of “creative professionals” (e.g. SSA1; SSA3) or “free-lancers” (e.g. SSA1).

Conversely, words such as “entrepreneurs” and even “entrepreneurialism” are of common use among the second group of actors populated by start-uppers, business institutions and managers of the satellite infrastructures (E2; INS11; SSA7; INS8; F1; SSA6; E1; M3). Those CWSs and firms, more exposed to partnerships with line agencies and big corporations, also showed a bigger sensitivity towards marketing and branding topics (i.e. SSA7; INS6) recognizing the importance of big reputational events and place branding, also mirrored in their real estate choices as will be highlighted later in this chapter.

Additionally, many respondents from this group associated the presence of a great number of start-ups with the spread of an international message of modernization of the city (INS11; E1; SSA7; M3; INS5). These people are familiar with Florida’s ideas of cities attracting talent (SSA7; E1; E2) and they even refer to a “venture business industry” (SSA6; E1). Actors gravitating
around the digital sector or start-ups in general, are likely to define themselves as part of a “start-up movement” (E1; F8; E2) as a juxtaposition of the Makers Movement but also confirming a trend of “start-up urbanism” standing as a contemporary expression of “the neo-liberalization of cities and the self” (Rossi, 2017; Rossi and Di Bella, 2017).

Among the second group, or the “start-up ecosystem” as from their own words, the awareness of participating in a cluster seems more tangible. This difference might relate to their knowledge of basic notions of economics and surely, it relates to their corporate approach. They recognize the branding power and the benefits coming from an economy of scale, even when applied to spaces (SSA7). Therefore, even if the first group is asking more violently for institutional cohesion and a coordinated approach in treating the various innovation issues as a unique opportunity for economic development and regeneration for the city of Rome, it is this second group who seem more aware of the importance of raising awareness of the new agglomerations.

In general, most of the respondent referred to an “ecosystem” populated by different but connected “hubs”. Especially, the professionals gravitating around the second typology, top-down funded and established, tended to care a lot more about references to an agglomeration scenario and its benefits. This “ecosystem” refers to the whole set of professional figures animating the new Roman entrepreneurial sector, including institutional and mediatory roles.
regulating the flows of financing opportunities for innovative businesses\textsuperscript{10}. The word identifies a close circle of people that tend to know each other and work in innovation related disciplines. Sometimes it is correlated with more specific labels identifying the group of belonging such as “start-up ecosystem” (E2; E1; INS8), but more in general people referred to an “ecosystem of innovation” (e.g. E2; F1; INS8). Similarly, the world “hub” (used in its English form) was used by many actors at different levels (i.e. F1; E1; E2; SSA6), sometimes in association with supplementary qualifications such as “innovation hub” (e.g. F1), “entrepreneurial hub” (e.g. INS11), or even “city hub” (e.g. SSA6). Those labels refer to cities devoting their effort and planning strategies to enhance their innovative reputation on the international scene to attract investments (policies that INS11 have picturesquely defined as “architecture of innovation”).

Given the analysed discourse, I will from now on refer to the process of creation of a new entrepreneurial ecosystem for the city of Rome, as a label encompassing the different sociological orientations of those new innovative firms. All the highlighted terminologies are indeed different facets of the same urban clustering phenomenon. The fact that some group of actors show a deeper local embeddedness with the belonging boroughs is reflected in the different locational choices of the different groups. The direct consequence is the emergence of some sub-areas of concentration, that are connected within a bigger but intangible network made of relations of trust and institutional

\textsuperscript{10} Mainly they refer to those defined by the ‘Smart Specialization Strategy’ of the Lazio region or the micro-loans offered to new activities on a national base by the Fondo di Garanzia.
support, but also including digital technologies and the contemporary communication means. The following chapter will focus on the geographical implications of the Fourth Italy and the ways the two ideological groups have overcome the physical barriers offered by the complexity of the Roman territory.

4.5 Conclusions

This chapter has provided a description of the key professionals participating in the agglomerations of innovative businesses that shape the Fourth Italy. The three main actors identified are makers, innovative start-ups, and enterprises gravitating around or managing CWSs. In particular, the Makers Movement has been used as a window of observation on the new urban entrepreneurial trends. Findings from the pilot survey undertaken at the Maker Faire 2015 have provided evidence on the key features of those enterprises, shedding light on the conceptual ingredients of the contemporary geography of innovation and answering the first sub-research question in this thesis.

The activities represented in the makers’ sample largely correspond to the cross-sectorial knowledge advocated by the framework of cognitive-cultural capitalism by Allen J Scott. They correspond to a mix of cultural content and new technologies. Firms are very small with very high rates of freelancing. They tend to produce additive manufacturing or services and their relations with suppliers and customers are completely different from those of traditional manufacturing firms. Makers value social networks and knowledge spillovers generated by social proximity. For this reason, they participate in temporary
clusters such as trade fairs and they choose to establish their businesses in cities. Similarly, their preferred working spaces are SSAs, where spillover effects are maximized.

CWSs of different types are also important actors in contemporary agglomerations. In particular, the way they are structured and implemented might target users from different ideological backgrounds and therefore relate to a slightly different perception of innovation and local economic development.

The Roman innovation scene is twofold. On one side, there are makers and CWSs established from the bottom-up who are claim to impact on social innovation, the democratization of innovation and the demand for entrepreneurial rights. On the other side, the registry of innovative start-ups has seen the creation of a group of more corporate oriented firms relying on venture capitalists, private investors and the support of incubators and accelerators to thrive and to evolve. Ultimately, this dichotomy has stimulated a conceptual debate on the type of innovation at hand, its implications for traditional capitalist norms and the role of governance.

Those firms produce mostly incremental innovation that identifies a gap in the market and tries to fill it. In other words, their cross-sectorial approach determines their innovative capabilities. This assumption implies also the promotion of social innovation and of the simplification and renewal of procedures and the structure of the public administration. However, the excessive emphasis at national and regional level –influenced by EU guidelines on entrepreneurialism - on start-ups as a tool to trigger new
economic growth reflects a neo-liberal approach to the jobs market, with increasing levels of social uncertainty and project-based contracts. Therefore, the emergence of such agglomerations needs to be read mostly as a reaction to a lagging economic context and as a rupture with past regional development paths.

The new type of agglomeration is linked to a wider debate on the evolution of capitalism, with cultural content increasingly entering goods, new technologies and communication overcoming barriers and providing increasing potential for customization. This evolutionary scenario of capitalism provides analogies with the Third Italy. The former had emerged as an economic and geographical model for flexible specialization and SMEs designed for a post-Fordist society. Similarly, the Fourth Italy is set in another epochal transition of capitalist societies, representing a model of innovation production at the local scale, contrasting with that of global multinationals. However, given the lack of appropriate and tailored governance, most of the initiatives in place in Rome still rely on informality and on a network of trust relations. This hinders the development of the Fourth Italy as a formal model and it limits its potential multiplier effects due to a lack of awareness.

The results of a brief discourse analysis show that respondents usually refer to these urban concentrations as an “ecosystem” of innovative entrepreneurs, within which some smaller nodes or “hubs” act as reference points for the various entrepreneurs. From here onwards, this thesis will refer in this way to the new agglomerations of cognitive-cultural activities from the Fourth Italy.
The next chapter will analyse the geography of this emerging urban economy and the location of the relating satellite hubs, making assumptions on the implications for the surrounding built environment and its regeneration.
5 A new urban economy? Localization patterns of the Fourth Italy.

5.1 Introduction

The title of my thesis implies the emergence of a new geographical, economic and conceptual model expanding that of the *Three Italies* described by Bagnasco. The current chapter tackles in particular the geography of the contemporary agglomerations of innovative enterprises. The preferential geographical location for agglomerations of SMEs and entrepreneurs producing innovation has changed since the “second industrial divide” (Piore and Sabel 1984). As I have implied in Chapter 2 by discussing two bodies of literature - namely agglomeration theory and the cognitive-cultural capitalism - industrial districts are no longer centre for innovation, making room for more urban contexts but still complying with basic agglomeration theory’s norms. From the Marshallian ‘industrial atmosphere’ we have shifted to the revival of some traditional ideas from Jacobs (1961) and Hoover and Vernon (1959). The globalization of market and of information flows has brought about deep geographical changes. When it comes to technological innovations at the global scale, we have observed the loss of importance of locations. When we are dealing with small businesses and innovation instead - as in the focus of the current research – we observe an increasing pressure on cities and local economic development. This chapter provides a geographical description of the Fourth Italy, presenting empirical evidence from the city of Rome.
In chapter 4, I have highlighted the set of activities and the typology of professionals participating in this new type of economy, hinting at its urban character, as suggested even by the early findings of the pilot study. Despite the presence of some local contextual peculiarities, the phenomenon is not restricted to my selected case study only. Agglomerations of entrepreneurs and activities with similar features – mostly relating to the framework of cognitive capitalism – can be observed in many of the traditional capitalist cities (as already reflected by the different origins of the makers responding to the pilot survey). The Maker Movement is a worldwide phenomenon, and so is the capillary spread of CWSs. The geographical patterns emerged surely highlight some specificities due to the local context and embeddedness, but they also present some more general characteristics that, once abstracted and generalized, can lead to a new global model of agglomerations in economic geography.

This is an economic geography of the crisis, generated as a reaction of a lagging surrounding context – of which Rome stand as a valuable example - and as such, it triggers a number of other connected mutations and implications. This chapter deals with the localization patterns or the spatial features of the new model of agglomeration. In the specific case of the Italian economic geography, the emergence of a Fourth Italy as house for innovation still misses any formal acknowledgment, adding up to an analogy with the way the Third Italy was also theorized.
Delivering an appropriate answer to my “where” question is a foundational step in unfolding the story of the Fourth Italy. It implies mapping and describing the new working spaces and explaining the reasons why some neighbourhoods are more involved than others. A second effort will be dedicated to assessing causes and consequences of the locational choices of those creative and digital professionals. To physically map the key actors of the Roman ecosystem hub – i.e. innovative start-ups, Maker Movement, shared service accommodations (SSAs) – I have drawn upon data coming from the registry of “innovative start-ups” held by the Chamber of Commerce of Rome. Other material was added from a desk review of secondary data from the web, and from my interviews of the main actors of the Roman innovation scene (cf. Chapter 3). The key themes that came to the surface are:

a) The physical fragmentation of the city and its infrastructural struggles that have led to some changes in professionals’ habits and preferences.

b) The effect of the economic crisis influencing the type of working spaces and their location.¹¹

Site visits to the key working spaces, identified by the interviewees as part of the new ecosystem of innovation in Rome, have also contributed to the full picture of the new geography of innovation for small and medium sized enterprises in cities like Rome.

¹¹ Both points have also led to the creation of new professional figures and intermediaries as explained in the next chapter of this thesis.
The first section of this chapter is dedicated to the localization patterns of the ecosystem at the metropolitan scale of Rome, presenting the various actors and their settlements. As displayed by the higher number of shared working spaces and initiatives, certain areas of the city have better responded to innovation than others. The second section of the chapter analyses therefore, the different typologies of spaces and their concentration within the urban territory providing an explanation of their socio-economic ties to the surrounding built environment. These clustering processes suggest that the social and political background of the area influences the localization patterns of those firms and the way the ecosystem is being shaped. *The cultural embeddedness of this apparently new phenomenon suggests a parallelism with the Third Italy dimension, despite the obvious discontinuity in the geographical location.* Hence, the last section of this chapter is finally, dedicated to a comparison of Third and Fourth Italy settlements.

5.2 *Cities Renaissance and a new urban economy for the Fourth Italy. The start-up approach and its impact in the urbanization of cities*

The territory of Rome is surely undergoing some deep economic changes, especially given a lower number of jobs available in the public or in the construction sector, which have historically shaped the economy of the city. Start-ups are becoming increasingly part of the offer on the labour market and cities are at the centre of this discussion. If we review the Italian central government’s directions, which regional and local policies and strategies need
to comply with, the trend is clear: cities are the new economic junctions. As an officer from the Ministry of Infrastructures (IN12) has explained, they have foreseen increasing pressure on cities, making it explicit in their frameworks for “innovative integrate actions” by setting the pace of the forthcoming Italian logistical strategies. The response of the Ministry of Economic Development to stimulate economic growth targeted instead, new businesses and innovation. On this purpose, a special register for “innovative start-ups” (held by the regional Chamber of Commerce) has been established, granting tax benefits to new businesses investing in R&D and employing young entrepreneurs with higher education degrees (for details on the law 179 from 2012 see section 4.2.2 of this thesis). The list of enrolled firms is published every three months — available online for download - and it contains some basic details about them, such as the sector and website of the firms.

Once gathered data over the web to check the address of registration of each start-up, the results have been plotted in figure 5.1 and 5.2. The first one shows data from the list available from the Chamber of Commerce’s website on the 26th of February 2015. This registry reported 283 enterprises in the Lazio region, of which 247 settled in the metropolitan area of Rome (or the 87% of the total of the region). As shown by the map, around 90% of the firms were contained in the inner boundaries of Rome, defined by the Grande Raccordo Anulare (GRA): the ring-motorway dividing inner and outer city. Updated data from one year later show a similar situation: on the 22nd of April 2016 firms had almost doubled in number growing to 610 in the Lazio region, of which 81% (or 493 firms) are in the metropolitan area of Rome for the most part located
within the inner city borders as shown in figure 5.2. Taking a broader look at registries over time, the centrality of the urban borders above the whole regional territory is a steady trend from 2014 to 2018: figures remain stable around an average 87%, with only a minority of start-ups spread outside the inner Roman borders. Similar scenarios can be observed in the other main big metropolitan areas of the peninsula (e.g. Milan, Turin, Bologna, Cagliari - in particular, the city of Milan has registered the peak of growth, for number of firms, in the last two years).

The figures are quite striking especially for Rome, as the capital labour market absorbs most of the regional population. An interviewee from the Chamber of Commerce of Rome (INS4) has confirmed that 82% of the regional economy of the Lazio region is now concentrated in the capital city. In Milan, the ratio only corresponds to a 35%, as many other activities are historically spread in its hinterland and outer industrial districts. However, even in Milan, almost 90% of the innovative start-ups are concentrated in the urban territory of the city (INS4; data from the registry updated at the 22nd of April 2015). In other words, start-ups are disproportionately represented by the city centre, independently from the distribution of active population. Crossing those data with other demographical statistics, we can observe that out of a total population of 4,356,000 people in the metropolitan area of Rome, only 2,872,000 live in its urban area (including the suburbs out of the GRA), corresponding to the 66% of the population. These data according to the above-mentioned INS4, correspond to higher flows of commuters and therefore to more innovative potential settled and released in the city centre. The main message to retain
in generalizing the statistics is that the start-up phenomenon is concentrated mostly in big urban centres, and its locational patterns are independent from any pre-existent tradition of manufacturing or industrial districts, representing in this sense a rupture with the past and with the geography of the Third Italy. Nevertheless, a limitation exists in taking into account only the geographical location of firms belonging to this registry and the listed addresses of their head office. The criteria by which the registry for “innovative start-ups” establishes what is innovative, have extensively been criticized by several professionals (F1; M2; SSA3; IN8; SSA6; SSA7). They mostly pull upon the idea that the fiscal benefits granted were allocated based on a vague definition of innovation with many real innovative firms not able to fit into those ratios. SSA6 pointed out that most of the start-ups leveraging on venture capital’s funding, which are the real core of the digital ecosystem of Rome, do not fit in that registry; conversely, other less innovative firms might suit its scope. In other words, restricting the spatial analysis only to this category limits the full description of the ecosystem of innovative entrepreneurs of Rome. The maps in figure 5.1 and 5.2 leave out some firms that could be considered innovative according to the requirements of the cognitive-cultural capitalism as defined in chapter 4, which did not match the criteria of that specific Italian registry. Despite the highlighted limitations, the produced material delivers already a first glimpse, and the only possible one (due to the lack of existent data), of the contemporary geographical changes whose interpretation and analysis have been implemented by data from the interviewed key representatives.

12 To support his claim, SSA6 pointed out that certain firms classified as innovative by the registry are not even endowed by a website.
Figure 5.1 - The map shows the location of the firms registered on the special register of the Italian Chamber of Commerce for innovative start-ups in March 2015. Data regarding the whole Lazio region are plotted here. The map shows an evident concentration of firms in the inner city area of Rome i.e. within the boundaries defined by the Grande Raccordo Anulare: the motorway defining inner and outer areas of the Italian capital city.
Figure 5.2 - The map shows the location of the firms registered on the special register of the Italian Chamber of Commerce for innovative start-ups updated in July 2016. The preferential settlement is still the inner city, and the number of firms has almost doubled in one year.
It can be argued, that start-ups - subjected to risks and possible failures - represent a slippery phenomenon. Their settlement can be temporary with two possible scenarios open after the first stages: either a tendency to relocate for an upscaling if they are successful or the disappearance of the firm due to failure. In their initial period, many of those firms gravitate around incubation or acceleration spaces, changing address later on. However, despite their transitional feature, their yearly growth in number, and the growing interest among institutions, as well as their geographical concentration - which remained unvaried throughout time - suggest a shift in the global geography of innovation that is worth to investigate as part of some major and bigger changes undergoing in cities’ economies.

Given the technological capacity and the innovative features of those activities (see Chapter 4), choosing to settle in a traditional urban location might seem a paradox for some digital app developers or online service and software makers in the post-industrial era. In chapter 2, it was highlighted that economic growth became in the last century increasingly concentrated in urban areas with a higher concentration of skilled human capital (Duranton and Puga, 2001; Glaeser, 2011; Storper and Scott, 2009). Most of the interviewees, while asked about innovative SMEs and their location, seemed to give for granted their urban dimension. E1 as cited below, has confirmed the renaissance of the celebrated ideas from Jacobs (1961) and Hoover and Vernon (1959):

“While the technological evolution can only spread in certain parts of the world, creativity develops mostly in big metropolises because they are crossroads for diversities, fostering competition and
competition fosters creativity. To let creativity become innovation then something needs to be done [as] the two things do not necessary merge spontaneously everywhere. You need to activate certain mechanism to trigger innovation. By now, big cities are the place for innovation, there is a consolidated movement re-locating it there from the old concept of industrial areas, techno-poles and/or scientific parks, that were clusters created in the middle of nowhere” (E1).

Even according to E2 - an academic expert on marketing and place branding leading for a long time a start-up incubator, spin-off of a Roman university - cities are catalysts for new businesses and creativity. He traces the origins of the creative and innovative potential of Italian cities back to the Renaissance, when artists went to Florence and the other major Italian comuni to find a patron (mecenate) – like the Medici family - sponsoring their art and development just as nowadays start-uppers seek for venture capitalists.

Beside cities’ complex and diverse environments allowing contamination (Jacobs, 1961), many interviewees also mentioned their attractive capacity for young talents (cf. Florida 2002; Glaeser 2011). A shared point of view, especially among institutional actors and experts, was indeed the relation between the urban location and the diffusion of this new type of innovation almost exclusively among the youngest. Even institutional measures to support start-ups and innovative firms explicitly target young professionals struggling to find jobs after higher education degrees. This category of professionals is naturally more attracted by amenities, transport accessibility
and the general lifestyle offered by cities (E1; E2; SSA6; INS11; SSA7; INS5).
The words of interviewee E1 offer a good summary of the reasons of an urban settlement for what he defines as the “start-up movement”:

“While the technological evolution develops only in certain places of the world, creativity develops mainly in big metropolis because these are the places where the crossing of many diversities grant competition and this stimulates creativity. Then to allow creativity to become innovation something needs to be done […] the intersection of those two things may not happen simultaneously everywhere, some mechanisms are needed to allow technology and creativity to blend and generate innovation. Big cities are nowadays the given place for innovation, there is by now a consolidated movement centring innovation in inner urban areas and moving it from the old idea of industrial, scientific or technological parks, which were clusters in the middle of nowhere. […] Nowadays innovation is more generated by young people than by anyone else, […] and their characteristic is to choose big urban centres […] where things happen.”(E1)

The attractive capacity of the urban environment is therefore linked to the diversity of its offer.

On the specific subject of young talented human capital attracted by cities, interviewee SSA7 wittingly commented:

“The trend is that now things mainly happen in Rome or Milan, […] [not] in the rural area of Veneto. It would be pure insanity; it’s out of the logic. […] If you want to make innovation […] with investments
in start-ups and you think that a guy that studied at Luiss or Bocconi University goes to live outside Roncate, you are outside the real world, you are outside any possible logic." (SSA7)

E2 and SSA6 also mentioned the relation between young age of start-umpers and their preference for cities and their amenities stressing the continuity with their academic training (E2 promotes university spin-offs supported by major state-led companies, while SSA6 manages an accelerator and incubator space holding collaborations with one of the major Roman private universities and venture capitalists). It can be critically observed that spaces of incubations for start-ups are filling the gaps left on the labour market by the cuts made by both private corporations and formal institutions, once able to provide economic and social stabilities. This attempt to regenerate and revitalize the economy, attracting young people with the start-ups promise, should be read as closely connected to economic uncertainties and decline.

On a perhaps less optimistic but equally grounded way, SSA6 has explained this urban shift as a mixture of negative causes coming from an economic depression and others more related to changing features of professionals (cf. Barber, 2013; Katz and Bradley, 2013). First, he established a correlation between the presence of many higher education students (more than 300 thousand in Rome) and the settlement of start-ups in the same urban area. Despite the new communication means, chasing connections at the early stage of a business is hard and takes longer from a laptop, while taking advantage of the urban face-to-face interactions makes it quicker. SSA6 identifies therefore, the seed of the Roman ecosystem of innovation in the
current lack of jobs, especially in the public sector. This lagging situation dictates an urgent necessity of finding a new economic source (cf. Bathelt & Boggs 2003) and therefore “the difficulties in finding jobs [trigger] the necessity of a rescue for the city” and in supporting new entrepreneurs (SSA6).

SSA6 continues observing that if Rome aims to become a proper innovation hub, it needs to be organized, safe, easily connected and participative (“with active citizenships”), to be ready to receive international professionals and investors. These discriminants now put cities like Berlin at an upper rank in terms of venture capital attraction than Rome. Other managers of facilities targeting start-ups also denounced similar issues with a general feeling of physical/geographical and institutional fragmentation of the city registered (see section 6.2). The institutional and infrastructural boundaries influence the locational choices of new activities, forcing them to find alternate ways to speed up their intellectual, institutional and economic exchanges and transactions. Once the business is established, firms’ dynamics start to be those of traditional firms and they could relocate in a more traditional office space with fewer concerns over the location (F3, F6, SSA6).

The coexistence of a digital and a physical network is meant to overcome the issues of spatial and social fragmentation. Entering the network is crucial to access most of the knowledge and funding opportunities, which are still widely unknown for those outside the closed circle of institutions and professionals. The situation is reminiscent of the early stages of development of the tech cluster in East London a decade ago (cf. Foord 2013). In the London case
though, David Cameron’s government was very keen on creating a structured cluster with the current Tech City brand. The decision triggered a controversial debate split among big companies and developers benefitting from the related policy regulations, and independent SMEs threaten by gentrification and the rising office prices. A similar scenario opens up in Rome. On one side, start-uppers - supported by state-led companies, venture capitalists and sometimes in connection with multinational corporations – welcome the branding of an innovative cluster in Rome and a more substantial institutional involvement. On the other side, more bottom-up initiatives, even more dependent from institutions in terms of funding and contracts, are less open to branding or regulating policies.

Start-ups by definition imply the necessity of building ties either for financial support or to simply and quickly test the market response with the necessity of an equally fast and smooth interaction with other experts, due to the cross-sectorial nature of their offer. Many of those innovators work as suppliers of services for the public sector (or other primary amenities and companies) or in strict collaboration with the cultural industry, both usually located in city centres (cf. Pratt 2008) therefore, an urban settlement allows an easier interaction with clients. In this sense, the big concentration of institutions on the Roman territory has encouraged the settlement of this community of innovative enterprises following mechanisms that are already true for the cultural industry. The Lazio region is currently the one with the highest expenditure in public fund for R&D, for the most part channelled towards innovation (INS4 as from the data collection and report for the Chamber of Commerce that he has
developed). Despite the international channel of information and knowledge, this clustering phenomenon produces economic development mostly at the local scale, making it of concern also for planners.

*In recessive economies like that of Rome, the general perception regarding policy guidelines supporting the agglomeration of firms is different from that of richer context like London. Here, there is a certain belief in the positive effects of a cluster creation process.* Positions might be more cautionary among actors from the bottom-up scene, like the Maker Movement or some far-left oriented SSAs managers ideally bounding institutions involvement in the grant of spaces, providing the necessary infrastructures or initial funding (e.g. IN9; SSA3; SSA5; E3). Only few, even more radically oriented, remained attached to bottom-up resolutions refusing any institutional help but wishing the natural emergence of a proper hub (i.e. F1; SSA4). The necessity of overcoming the fragmentation of governance and of tools supporting innovation is also the reason behind the success of SSAs, elected as the new working space of this ecosystem. The working spaces’ preferences reflect the vital importance of an urban location, especially given the small-sized businesses here analysed. SSAs replicate the diversity of cities, being vertically integrated clusters at the micro scale. The next section will lower the scale of observation, investigating how the different type of CWSs are having an impact on local economic development, offering a key to read the current major economic changes. A taxonomy of the different types of CWS is provided in relation to the type of firms and the surrounding socio-cultural *milieu.*
5.3 The new working spaces: CWSs as micro-clusters.

Zooming the scale of the investigation to the built environment, the most relevant change has been registered in the working spaces. Co-working spaces with various solutions, including fab-labs, incubators, accelerators or other services targeting start-ups, are definitely leading the scene of this new economic phenomenon. They have originally stemmed as a response to crisis and to a necessity of cutting traditional office spaces’ costs, allowing for flexibility and keeping the pace of technology (cf. Ferm 2014). Fab-labs are digital fabrication lab provided by a basic kit of machines and connected via a worldwide network; they were created by MIT as an exportable brand to reintroduce manufacturing among urbanized environment. The purpose of those spaces is to share knowledge and tools so that innovation becomes accessible to all, guaranteeing to local communities a quicker access to information and updates (Kalil and Rodriguez, 2015). If we analyse their global diffusion (figure 5.3) - that also corresponds to the spread of the Maker Movement - it is easy to notice that the areas of major concentration are those traditional capitalistic countries now struggling with the provision of jobs and with traditional industrial development.

Following the model of fab-labs, many co-working spaces’ censuses have also appeared, with annexes maps and online forums. Several versions are available around the web, having less accuracy than the global fab-lab map, which is a registered brand, but equally granting an effective picture of the global locational patterns, which mainly corresponds to that of fab-labs (figure 5.4). The different shared spaces might target different communities or display
different management characteristics (cf. Capdevila, 2014; Merkel, 2015; Toombs and Bardzell, 2014) however, for the purpose of this investigation SSAs will be analysed all together and the proposed taxonomy looks at the way they influence local economic development.

Figure 5.3 - The map shows the distribution of the MIT fab-labs in the world (source: https://www.fablabs.io/labs/map, retrieved on the 27th September 2016).

Figure 5.4 – The map shows one of the available network connecting and mapping co-working spaces of the world. Source: the global co-working map, retrieved from www.coworkingmap.org, on the 26/08/2016.
Since the beginning of the investigation, if any urban concentration had emerged, the goal was to describe the impact of those spaces on the surrounding ecosystem of innovative enterprises. I was interested in the type of relations to the surrounding neighbourhood and amenities as well as to the reasons behind the choice of the localization both from the perspective of SSAs’ managers and users. During my pilot interviews and survey in 2015, interviewees INS2 and INS3 from CNA Roma, the regional trade association of craft and small businesses, had identified a list of key actors of innovation that were informally shaking the Roman entrepreneurial scene by introducing for the first time the concepts of makers, digital fabrication and sharing economy. Figure 5.5 shows the key locations of innovation identified by the pilot study in relation to the boundaries of the different boroughs of the city.

INS2 and INS3 identified a link between areas considered with a high innovative potential and the location of the first co-working spaces opening in Rome (see red dots in figure 5.6).

The identified areas seeding innovation were:

1) the macro area encompassing the neighbourhoods of Portonaccio, Tiburtina, San Lorenzo, within the local authority that goes under the name of Municipio 4 (or IV) in the East;

2) the neighbourhood of Pigneto and its surroundings (Alessandrino, Centocelle, Tor Bella Monaca), lower down at the East within the Municipio 5 (or V);

3) parts of Tuscolano in the South, Municipio 7 (or VII);
4) Garbatella and Ostiense areas further south in the Municipio 8 (or VIII).

All areas are in the South Eastern quarter of the city, not directly central but still inner urban. This locational hypothesis became the base to test in the following investigations. During the pilot work in February 2015, the trade association for craft and SMEs of Rome (CNA di Roma), partner of this research, also provided a first list of innovative businesses and key actors to contact including the most relevant local authorities. Besides the confirmation of the urban renaissance hypothesis, the most important aspect to notice were the common features of the highlighted areas of concentration.

Figure 5.5 - The areas designated as innovative in the pilot interviews were those located in a South Eastern quarter of the city right outside the historical centre. Those are consolidated part of the city which in the years of massive and quick urbanization of the city were in-between spaces of rapid and uneven (sometimes even informal) growth.
The South Eastern quarter of the city is historically a working-class area; the mentioned areas were absorbed in the municipal boundaries during the rapid expansion of the city following the end of the Second World War and the economic boom from the 1960s. These neighbourhoods are now contained within the GRA, defining the inner and outer boundaries Rome, but they originated as a juxtaposition of working-class hamlets or slums created during the Fascist regime, informal settlements areas, and manufacturing warehouses for the few industrial sites of the capital city. In the current post-industrial era, even in Rome the industrial character of those areas is lost, offering a wide portfolio of empty, and sometimes derelict, buildings available at more affordable prices. At the same time, for the new digital artisans the proximity with traditional craft ateliers and factories allow them to easily outsource those manufacturing procedures that require a more specific expertise or some more expensive and bulky machineries than the ones a fab-lab is endowed with, thus guaranteeing a quicker and prompter realization of a prototype (F1; F2). Finally, the proximity to universities and leisure (e.g. nightclubs and bars) is also an influencing variable, making the areas trendy and appealing for young people [see also the first development of London Tech City in Nathan & Vandore (2014)].

The distribution of CWSs updated to July 2016 has shown a stark increase in their number, confirming also their urban character. The above areas of seeding have seen a densification of their concentrations and some other scattered areas have emerged. Figure 5.5 shows the distribution of spaces one year after the pilot. The trends look even clearer in Figure 5.6, elaborated
from the most recent data collected in October 2017. A new area of concentration has emerged in the North Western part of the city mainly around *Prati*. The city centre has been generally left out from the ecosystem due to its touristic and religious dedication. The borough of *Prati* is the closest area to the centre that offers an availability of premises in terms of former residential conversions or office spaces not yet colonized by the tourism industry in the North of Rome.

More recently, some CWSs have also appeared in the historical centre, and around the axes corresponding to the transport connections of the railway and metro lines, in the direction of the above-discussed South-Eastern quarter. On a first superficial analysis, only based on the geographical elements, coming from the map this might suggest a random distribution. However, a more in-depth investigation granted by site visits and interviews among the users and managers of those spaces, revealed the existence of different styles of CWSs in accordance with the surrounding urban area. The identification of those different typologies found in Rome, is useful to shed light also on the locational choices of firms, their target users and the way these variables affects or are affected by the urbanization of the city. The next section therefore, analyses the geographical features of the various spaces and their *embeddedness* in the local context.
Figure 5.6 – The map shows the location of the first CWSs to be opened in Rome. Updated to February 2015, the map corresponds to the first informal census undertaken by CNA Roma to become aware of the delineating new businesses.

Figure 5.7 - The distribution of SSAs in Rome updated to August 2016. The number of CWS is 3.5 times higher the year before. The map is the result of a desk review matching information coming from different sources reporting a listing of all the available SSAs in Rome. The first list came from an officer at Lazio Innova the regional agency promoting innovation; the others from online network managed and established by SSA subscribers, such as CoRete or reports from major venture capitalist companies such as WindTre Italy. Data have then been crossed also with the available list of addresses shown on Google while searching for entries like “coworking spaces in Rome”, “fab-labs in Rome”, or “start-ups accelerator in Rome”. The areas of distribution from the previous year are confirmed, and some new SSAs are emerging as “luxury” temporary office spaces in the very city centre, and other unities around the infrastructural and transport links of the city.
Figure 5.8 - The distribution of SSAs in Rome updated to October 2017. The number of dots on the map has increased of 42% over the previous year, confirming the localization patterns and the trends of concentration emerged in 2016. The shaded area in red represents the concentration of CWS within each Roman borough; the darkest areas are in the Central and South Eastern part of the city.
5.3.1 Different typologies of CWSs are located in different parts of the city and disclose a different impact on the local economic development.

Planning policies targeting or formally acknowledging co-working spaces as a use typology or a real estate product are missing in Rome. A variegated array of ownership structures, regulations and management of the different spaces exists, very often depending on the inclination and the political orientation of the corresponding local authority. However, a close relation of CWSs to the hosting neighbourhood is noticeable. In particular, as emerged from the interviews, different political ideologies have an influence over the different typologies and their location.

The possible scenarios of management and ownership could be summarized as follows:

A. Public space granted to a private. It could be managed by a cooperative, a foundation or a cultural association using spaces usually owned by the public sector in exchange for social services. This situation might imply the allocation of the space after a tender or on the base of trust relationships. Some users may pay a small rent and the utilities to the local borough, while some others may be completely free of any monetary charges.

B. Private spaces rented (or owned) by the manager. The person who started the SSA business privately owns or rents the premise. Those spaces might or might not include shared machineries such as laser cutters and 3D printers.
C. **Public fab-lab or incubators.** They are top-down initiatives institutionally set up, usually by regional agencies, universities or research centres and other educational institutes.

D. **Spaces associated to major state-led companies.** Premises are granted or rented at prices of convenience from publicly participated corporations. Those spaces are primarily dedicated to start-ups and host incubation or acceleration programs, they are connected to venture capitalists and other major national or international corporations.

The first two situations (A and B) mostly refer to a bottom-up approach to the phenomenon, while the last two (C and D) go down the path of top-down interventions. Users and managers from privately managed spaces - no matter the ownership of the space [corresponding to the A and B situations] - feel threatened by the competition imposed by the public and corporate experiences [C] (SSA7; SSA5). However, a categorization based on the ownership of the space is not ideal to understand the creation of different areas of concentrations, as shown on the map from figure 5.11.
Figure 5.9 – The map shows one more time the distribution of CWSs in Rome updated to October 2017, though here a layer of mark-ups has been overlapped to the simple distribution. The red circles identifies areas of concentration mostly displaying spaces of the first typology (CWS1), while the grey shaded areas identifies the more traditionally and corporate oriented spaces targeting digital start-ups and incubators (CWS2) or the commercial spaces from the third category (CWS3), mostly located in the very centre.

The biggest division occurs between the start-up world - more corporate oriented - and that of makers or creative professionals, more socially and politically involved. Between the two experiences, the formers have emerged from below while the previous are supported by venture capitalists or investments of other big corporations. As shown in table 5.1, three main typologies of CWS have been identified in Rome: CWS1 or ‘social incubator’, CWS2 or ‘business incubator’, and CWS3 or ‘commercial incubator’. The typology of building and the attachment to the surrounding neighbourhood change according to the various typologies. CWS1 are mainly located within the red circles on the map in figure 5.11 that also correspond to the area listed in section 5.3. These spaces are more locally embedded and they show a deeper engagement with the urban and social regeneration of the surrounding neighbourhood, usually decaying and socially deprived.
CWS2 instead, indicates the facilities linked to major state-led agencies and venture capitalists. They usually occupy traditional office premises or business districts in needs of economic regeneration, but they show less social embeddedness in the surrounding context. The building they chose is relevant to their exposure. Those two typologies will be the most relevant for matters of local economic development.

Finally, the third group CWS3 mainly corresponds to the dark circles on the map from figure 5.11. They are usually more centrally located and merely standing as a real estate product: small shared office spaces or desks for rent by international real estate companies like Regus or even Coworkyard; the former is present in more than 18 big cities and has even partnered with Amazon, offering office spaces with the same mechanism of Airbnb\textsuperscript{13}. The target of those spaces is generally different from the previous two; the offer of spaces is more luxurious, explaining also the more central locations. Those spaces are not relevant for the analysis of the new urban economy, as they are not telling much about its agglomeration dynamics and its effect on the built environment. Nonetheless, they surely confirm a raising demand for such spaces and the presence of primordial agglomeration effects: they are the first new actors and new jobs created in the ecosystem’s labour pool. Surely, from all the possible grouping solutions a factor of concentration is offered by the physical infrastructure of the two underground lines of the capital city.

\textsuperscript{13} Spaces belonging to multinationals of the sharing economy such as Coworkyard were excluded from the map in figure 5.11.
Wanting to match the array of situations offered on the basis of ownership and real estate with the proposed taxonomy of spaces, we would find some A) and B) situations within CWS1, mainly hosting socially engaged makers and freelances. In CWS2 we would instead fit many elements from D), promoting the start-up culture and leveraging on venture capitalists. Finally, elements of C) could be equally spread between the first two typologies, depending on the type of public authority engaged with the space.

<table>
<thead>
<tr>
<th>Typology</th>
<th>PRIVATE</th>
<th>PUBLIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CWS1</strong></td>
<td>Space owned or privately rented by the CWS’ manager</td>
<td>Space granted by local authorities to private managers.</td>
</tr>
<tr>
<td><strong>CWS2</strong></td>
<td>Space granted from private corporation (or state led agency) to accelerator/incubator manager.</td>
<td>Spaces owned and managed by regional authority or similar agency.</td>
</tr>
<tr>
<td><strong>CWS3</strong></td>
<td>Commercial real estate product, implemented for profit by either local or international firms.</td>
<td>/</td>
</tr>
</tbody>
</table>

Table 5.1 - The table summarizes the categorizations proposed to identify the different CWSs. The three different types of CWSs are distinguished according to the role they play in the surrounding process of local economic development and independently of their ownership condition.

It became quite clear interviewing the different actors, that the differences between CWS1 and CWS2 are rooted in the cultural and political orientation of both managers and users. These social patterns influence the approach and the characteristic of the location selection. The distribution of CWSs per boroughs is mapped in figure 5.13. The largest fraction of the CWSs in the
historical centre (Municipio I) belongs to the third typology, while the concentrations over the other boroughs (4,5,7, and 8) are mainly given by spaces of the first typology (cf. locational patterns discussed in section 5.3).

In particular, spaces emerged from the bottom-up – or under the initiative of either an individual or a small group of professionals - tend to cluster in that specific South-Eastern working-class area of the city, showing a more active participation to planning and social innovation issues. Conversely, all those in the other category seem to have a looser attachment to places and locations at the neighbourhood scale, but more attention towards the building they occupy and the brand offered by the city at the wider scale. Surely, the start-up related structures can benefit from very different initial amount of money to be set up (being a Ltd. or an S.p.a. or even managed by a real estate fund). They are therefore, able to pay any kind of rent or to benefit from spaces granted by the partner corporation.

To summarize, the cultural and political ideology and the type of funding and linkages in their networks are the real discriminants in the urban settlement of those firms as well as a distinguishing feature of the typology of their activity. Different types of innovation and different interpretation of the concept of ecosystem are found in the different situations. The next sub-sections will provide an in-depth explanation of the differences between the first two typologies - CWS1 and CWS2 - selecting and analysing data coming from the interviews.
5.3.1.1 CWS1: a social innovation manifesto and the struggles of a new class of urban manufacturers.

The first typology of CWSs corresponds to experiences emerged from the bottom-up. Those spaces are mostly clustered in the old hamlets areas in the South-East of Rome. The relating milieu is shaped by social tensions and they are the typical example of innovative solutions responding to a necessity of transformation due to the lagging conditions of the area (cf. Bathelt & Boggs 2003). In many cases, they came to fill a portfolio of mainly poor quality or derelict buildings that lost their original dedication due to the current crisis (e.g. public spaces like community centres built as part of a residential development but never used and risking vandalism, or office spaces no longer in use) moved by the necessity of providing amenities to the community.

Some examples are:

- *L'Alveare* in Centocelle, a co-working space with nursery established in a public facility of a social housing estate never really put in use and then vandalized;

- *Impact Hub Roma* in San Lorenzo, settled in a former garage space now closed for bankruptcy;

- *SPQwoRk* in Portonaccio (now closed), born in the original office space of a dismissed deposit of a bus company,

- *Fuso Lab* in Alessandrino, renting the former office spaces owned by the cooperative managing the adjacent supermarket no longer in use after job cuts.

The pioneering maker spaces of Rome also belong to this group, currently covering an important educational and ideological role in the cluster creation.
(see Chapter 6). Very often they work for local or public authorities (e.g. M1) or they benefit from regional funding coming from EU opportunities (e.g. SSA4 or E3) or national micro-finance opportunities for new activities or social innovation businesses (e.g. SSA2). They share a common ideology and they are usually very concerned about the regeneration of the surrounding neighbourhood. For this reason, they are very active in stimulating citizens’ participation (e.g. SSA3) or even promoting local regeneration actions such as digitally manufactured urban furniture (e.g. SSA5).

Most of the times, this typology of space is set up by creative professionals deciding to start managing their own SSA to cut the cost of a traditional office space rent solely (SSA1). Rome is a difficult environment for creative professions: “there is a hyper-offer compared to the demand” (INS9). Both users and managers stressed in their interviews the importance of human interactions and the way they enhance professional linkages and knowledge spillovers that are vital for activities at their early stages. Especially managers benefit from having around professionals to eventually set up occasional collaborations with. Those interactions are based on freelance relationships, without therefore having to commit to a permanent salary outflow (SS1; SSA3; SSA5).

As from the words of SSA3, these spaces are the result of a changing labour pool and they represent the working habits of free-lances:

“I believe [that] the debate around networks is more a matter of a changing labour pooling, moving towards more project-based jobs
than permanent ones, and this applies also to enterprises. We have changed throughout the years, and depending from the project, we needed to activate different tools and expertise that you don’t necessarily need throughout your working life. For instance, I do video mapping once a year; I am in contact with the VJs - they come here to give lectures - and once I need them they rent me their software at a price that is even lower than the service rate. So, if I need them I just activate that branch of connections and we work together. With a work oriented towards projects, it is very important to build solid and quick networks. […] Here in Rome we are trying with the experiment of CoRete to group co-workings and fab-labs” (SSA3).

The needs of those new businesses have changed due to the type of technologies they use and the limited capital they have: SSAs suit the flexibility of contemporary innovation when it comes to small-scale productions or SMEs.

In this type of urban economy, it is interesting to underline the value given to personal networks and relations of trust. While interviewing professionals, it became clear that the management of the developing cluster relies on a closed circle of trustees, many of whom are managers of SSAs. From the managers’ perspective, building local ties means being constantly exposed to new ideas and highly skilled professionals, while for any new business it is vital to be admitted to the network to access the flows of funding and information.
SSA1, the manager of one of the first co-working experiments in Rome - settled in a derelict market warehouse in *Garbatella* (they have been granted the spaces comprehensive of utilities and they formally give back social services to the local council in return) - explained that users are interested in the community before even asking about any of the offered facilities. Similarly, the most important ingredient to establish a public partnered co-working is a strong local political support.

Interviewees from different type of SSAs, settled in different areas, of the same South-Eastern quarter, have used similar arguments to motivate their locational choices. Interviewee F1 declared to have chosen the location in *via del Mandrione*\(^\text{14}\) - “the last real traditional craft hub in Rome” - for two main reasons, one more practical due to the surrounding activities and one rather symbolic:

“[firstly the cultural reason:] this is the road of Pasolini\(^\text{15}\), the name of the restaurant “Accattone” is not by chance. This is the working-class Rome; [...] the enterprises around here [...] are hard-workers. This is effectively a district, but very basic and working-class

\[\text{14} \] *Via del Mandrione* is a self-help manufacturing settlement area originally dedicated to pasture, as suggested by its name. It geographically identifies an in-between area among the neighbourhoods of *San Lorenzo, Pigneto* and *Tuscolano*. The area is tighten between the ruins of the ancient arches of the Roman water main, the river Aniene and railways leading to Termini station. During WWII *San Lorenzo* was heavily bombed, then the area was occupied by refugees, using the Roman arches as shelters for their informal settlements, and later in the 1950s it became a well-known area hosting gipsies and prostitution.

\[\text{15} \] Pasolini was a Roman writer and filmmaker from the neo-realism movement, which documented life in the poor hamlets around the historical centre of Rome during the 1970s. He became the key observer of social changes in the Italian post-war society and a symbol for the far-left communist party for his radical claims for social innovation other than for his homosexuality. Many of his movies were shot in *via del Mandrione* and the surrounding areas, one of the “popular” areas of Rome he mostly celebrated in his works.
targeted, with integrated services; there are almost 100 enterprises. [...] You can have a co-working with a very good quality architecture [...] but if you want to be connected with the Italian productive chain and understanding its mechanism it is in a place like this one that you should be settled, your head can be everywhere but your feet need to be in a place like this [: a] traditional productive place”.

The same firm, F1, as others interviewed (i.e. SSA3 and SSA4) also disclosed to select start-ups hosted in their premises based on their ideological inclination, or - it is the case to invest venture capital investments - in the ideas they most believe in. They usually do not fancy the label of “entrepreneurs’ in favour of that of “innovators”, “entrepreneur 2.0” or “social entrepreneur”. This political and social ideology (see section 4.4) also influences the choice of the areas of settlement. The physical fragmentation and the informality shaping those areas from the Southeast of Rome also forces people to interact and react, which is a key component for this new type of technological innovation.

The shared space managed by SSA3, has emerged as the evolution of a social centre (see section 4.2.3). The interviewee declared that their locational choices were influenced by the surrounding environment rather than by the actual conditions of the premises. They started targeting Pigneto, an ideal location for the type of events they were planning to organize, and then when they decided to widen their vision to an SSA checking the RE market availability, they decided to bet on a social and cultural space in the periphery:

“the [south eastern] quarter of the city is not accidental, [the address] of the premise maybe is accidental [ed. the space rents
some office spaces originally belonging to a cooperative managing an adjacent small shopping centre], [...] but we were looking for something in the periphery and here there were all the conditions. The area of Alessandrino is an old neighbourhood now undergoing changes because of the generational turnover, with few cultural spaces and of aggregation, [but] with big shopping centres, therefore it was interesting to install a place like ours”.

On the same trend M1 - managing the first fab-lab settled in Rome and now leading a project bringing these facilities inside schools “Fab-City” - explained the reasons that motivated them to choose Garbatella (they use a privately rented garage space) as follow:

“It is a central location even if not in the very centre. There are enough and affordable parking areas as well as good transport links (the metro B and the train coming from Ostia and Monte Mario), which makes a huge difference in cities with mobility issues like Rome. It is a working class neighbourhood with a cultural and manufacturing tradition and full of social experiences and finally there is a university [i.e. Roma Tre]”.

As we have seen in chapter 4, managers from those spaces might display a far-left orientation. Originated as a spin-off of the former social centres, they are now a gathering point for many people believing in a democratization of production and innovation, as represented by Paul Mason’s idea on the evolution of capitalism (F1; SSA4; SSA3). They therefore have carefully
chosen the location of their business according to their cultural ideology and to the historical reputation and genesis of their neighbourhood.

There is a certain rivalry and competition between the two typologies of CWS, even if the two networks are linked and all the professionals seem to know each other. People gravitating around this first typology of space seem to dislike and mistrust people from the so-called ‘start-up movement’ and the relating amenities, due to the more corporate attitude of the second group. Conversely, the second set of professionals tended to undervalue the tangible impact on the economy of the city of makers and the other social entrepreneurs.

Political ideologies and connections are relevant to shape the type of CWS a professional choose to belong to. Paradoxically in the era of globalization, local colours and embeddedness have become even more evident and relevant. This explains the importance of the “glocal” dimension of co-working spaces (M1; M4) bridging international informational flows with local embeddedness and trust relations (cf. Swyngedouw, 1997). This type of political dependency and the ties that CWSs1 have with public authorities – which are sometimes even granting them the spaces or employing them for educational trainings and other similar jobs – is reflected in their formal structure of constitution. Innovative start-ups belonging to the dedicated registry are hard to find in this type of spaces, as they are not usually connected to venture capitalists or accelerator facilities. They are mostly registered as Ltd.s, individual firms,
cooperatives or other sort of associations, following different pathways to reduce taxation. A different scenario is offered by CWS2.

5.3.1.2 CWS2: start-ups, venture capitals' attraction and the education of a new class of entrepreneurs.

The second typology of CWS is more dedicated to start-ups and less involved in the democratization of innovation and manufacturing. This is the case of SSAs connected with venture capitals hosting accelerator programs and partnered by major corporations. They display a rather neo-liberal approach to the labour market, having a less direct impact on the surrounding build environment, but facilitating the creation of new privately owned SMEs [cf. with the definition of “start-up urbanism” seen in Rossi and Di Bella (2017)].

An example is Luiss Enlabs/LVenture, an SSA with accelerator and incubator programs directly connected with the private university of Rome Luiss “Guido Carli”. Its premises is located inside Roma Termini station, within the former office building of Grandi Stazioni (the company in charge of the Italian major train stations). Other similar spaces hosting acceleration programs are led by Telecom Italia, Enel, Poste Italiane, or by other private corporations settled in the business district of Roma Eur or at the Tecnopolis Tiburtino. These vertically integrated facilities aim to be attractive to ‘would-be entrepreneurs’ and to investors. Those spaces, and the events that they organize with potential investors, provide the necessary network and environment to attract venture capital opportunities. Very often, the access to the space follows a process of selection. In this sense, those spaces should be seen as a facility
offered to certain start-ups, rather than perceived as a permanent office solution. Once the business is solidly established and economically stable, firms tend to move to more traditional office spaces (as confirmed by the interviews with the director, employees and different type of users from \textit{LVenture}).

Spaces of this second type tend to be more concerned about the value of the building they occupy and the image they are able to sell through it. This choice can influence also the typology of start-ups and the investors they are able to attract. Therefore, they tend to settle in better building and more premier locations than CWS1, with a finer attention even to decorations and a motivation at times different from the previous group.

They tend to stress the lack of adequate buildings in Rome. Many of the large historical buildings are owned by real estate funds or investment trusts, which do not rent them at accessible prices (E1; SS7). The major corporations or state agencies to whom they are partnered with, usually help them covering rental expenses, or the same agencies, host them in one of their premises either at a symbolic rate or subcontracting them for services such as training, communications or events. An example is \textit{Talent Garden} in Prati, a co-working space partnered by \textit{Poste Italiane}. Similar examples occur with the major communication companies such as \textit{Tim} or \textit{Wind} or even some national agencies (e.g. \textit{Enel} or \textit{Grandi Stazioni}). Their objective is to retain talents and innovation while attracting investors by financing start-ups.
These spaces very often have arisen and still work as university’s spin-offs, like *LVenture/Luiss Enlabs* the accelerator and co-working space created in partnership with both the university *Luiss Guido Carli* and *Grandi Stazionio*. People come here, after a selection process, to learn how to set up a successful business and to meet potential investors. According to the amount of capital they manage to attract, they go through different programs and paths (SSA6b). The idea is that - once the business is solid enough - they can decide whether they want to stay and rent a small private office space in the same place or leave the SSA and set up their own office somewhere else. These spaces stand as an additional step in the educational ladder, by providing professional help with private resources, a support that is currently lacking within Italian universities.

Differently from the firms gravitating around CWS1, the start-up world shows a closer sensibility to the marketing power of place branding (E2). The first reason is represented by the more direct connections with venture capitalists and multinational corporations. SSA6, the manager and founder of the biggest accelerator space in Rome, explained that the brand that a city is able to sell abroad is very important in the field of innovation and start-ups, in order to attract investments and foreign entrepreneurs. Interviewee INS5 (an officer of the Chamber of Commerce involved in the organization of the Maker Faire) confirmed the information in a similar but more naïve way. When asked about the reasons for the new urban renaissance and the presence of a concentration of young enterprises in Rome, he stated: “they need to be in
Rome, because it’s cool” (INS5). A similar branding dynamics applies to the relevance gained by the Roman Maker Faire.

A less optimistic approach was instead displayed by SSA6, claiming that Rome still is a long way afar from developing a positive reputation in the field of innovation and start-ups, mostly due to its fragmented institutional and political framework. Rather than the local scale, this group of professionals has shown concerns mainly over the central municipal authority and its ability to improve or provide a solution to issues of urban decorum, reputation, and infrastructural amenities for the benefit of the new innovative businesses. They have a wider scale vision and a more pragmatic approach.

They wish a central top-down acknowledgement of the cluster to achieve a more systematic line of development. INS13, a formal member of the mayoral assembly now at the opposition and working for a regional institution, showed particular concerns over the political framework of the city, which is not able to guarantee an adequate international image. Political stability should be sold abroad to attract investments and it is crucial to stimulate the creation of a real economic development, as well as raising awareness of the new urban ecosystems and economies. Institutions should play a role in this process agreeing on a consistent strategy unfolded in the different spheres of governance. Chapter 6 of this thesis will further investigate the role of institutions in the creation of the Fourth Italy.
The weaker attachment to the local context of CWS2 also depends by the higher concentration of innovative start-ups and their higher mobility rates: they might settle in an incubator/accelerator space and relocate somewhere else afterwards (SSA6b; F7). The actual place where business is conducted may not always correspond to the physical location of the enterprise. People may indeed choose to work from remote while having the company officially registered in a different location. After an initial trial stage, start-ups either take off or collapse. If they survive, they tend to follow the traditional dynamics of every other regular firm. This explains also why the registry for innovative SMEs (see section 4.2.2), originally conceived by the Italian government as a natural follow-up to the innovative start-up status, is not as popular as the previous.

Despite their lower attachment to social matters at the local scale, tech start-ups and the development or retrofitting of dedicated office spaces and areas is becoming a trend in city fringes all over the world. Start-ups are welcomed to rescue the economic lot of many lagging areas of contemporary cities. Barcelona and Paris have their fair share of start-up hubs; Detroit is rescuing from bankruptcy establishing a reputation on creative businesses and start-ups, and similarly some areas at the fringes of Shoreditch and the City of London are developing more and more flexible office spaces dedicated to digital service-oriented SMEs. Even in underdeveloped areas of the world, setting up a start-up is being advertised as the only way to achieve economic development. Same attempts are made to rescue techno-poles and similar productive areas built during the 1970s under the influence of CBDs.
development and zoning. An example is offered by the start-up incubator established in the Tecnopolo Tiburtino in Rome or within the borough of Tor Vergata, taking advantage from the presence of the second university of Rome (F8).

In particular, the Roman techno-pole, or Tecnopolo Tiburtina, is an infrastructure that has struggled to find a real dedication hence reaching a full occupational rate. The unattractive and unpopulated location situated in an outer suburb is blamed by a majority of interviewees as one of the causes of the failure. However, the structure is close to a motorway node so, it offers an opportunity for those enterprises in need of big spaces and specific logistic arrangements (INS7). Scientific parks and similar infrastructures are now proving to have been a bad public investment. F1 highlighted that innovation cannot be artificially bred in whichever place because it is context dependent (“[innovation] does not work like intensive livestock facilities”). The key issue in those sort of places is the lack of attraction and identity of the location that makes it hard to attract people even with a live timetable of organized events (SSA1; E1: INS11). The adaptation of those spaces as start-up incubators and SSAs is a symptom of the high regeneration potential possessed by those facilities.
### EXAMPLES OF CWS

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<tr>
<th><img src="image1.png" alt="Image" /></th>
<th><img src="image2.png" alt="Image" /></th>
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<tbody>
<tr>
<td>Millepiani, coworking settled in a public space: a former market hall in Garbatella.</td>
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<td><img src="image4.png" alt="Image" /></td>
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<tr>
<td>Fuso Lab, private CWS renting spaces belonging to the nearby mall management company.</td>
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<td><img src="image7.png" alt="Image" /></td>
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<tr>
<td>Impact Hub Roma, privately set up, located in a former garage space in San Lorenzo.</td>
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<tr>
<td>L’Alveare, CWS with nursery space in Centocelle, occupying a premise originally conceived as community centre for the surrounding social housing estate. Source: Google image Search.</td>
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</table>
TAG Talent Garden, co-working space partnered by Poste Italiane, Prati.

Spazio Attivo, maker space partnered by BIC Lazio, San Lorenzo.

Different office solutions in LVenture/Luiss Enalbs, accelerator and incubator space in Termini railway station, linked to the university LUISS Guido Carli.
Tecnopolo Tiburtino, the techno-pole of Rome, now hosting incubation spaces and start-up facilities.

**EXAMPLES OF CWS3**

Regus Ostiense

Regus Popolo
5.4 From the Third to the Fourth Italy: a geographical discontinuity but some sociological continuities.

5.4.1 Urban regeneration and the Fourth Italy: lagging socio-economic context and in-between spaces.

The Fourth Italy has an urban settlement and therefore a clear impact in shaping new perspectives for urban regeneration strategies. More specifically, this is an urban geography of city fringes endowed with spaces seeking for a new dedication, where prices are still affordable and that display convenient infrastructural connections (cf. section 5.2). Interviewee INS6, an elected representative from a South Eastern Roman borough, has offered a good description of such edge territories:

“Outside the G.R.A. we are in the city that has still not undergone a deep transformation, the settlements are mainly spontaneous, informally built and then regulated at a later time [or the result of bad planning]. For this reason, there is an infrastructural [shortage], which makes it difficult to endow the area with services […]; this is the part of the city that suffers the most. Then there is also another part, which is not yet the historical centre but it is by now a consolidated part of the city. [Especially following] the period of the great transformation between 1993 and 1996, it has also received

\[16\]

\[16\] I met the interviewer - an elected member of the local authority from of one of the areas hosting the biggest number of CWS1 (see section 5.3.1) – just before the mayoral elections that would have seen the victory of the Five Star Movement: Virginia Raggi. Here INS6 is referring to the regency a specific Roman mayor: Francesco Rutelli, exponent of the democratic left. The key point among this mayor’s program was the regeneration of the Roman peripheral hamlets, in particular redesigning their public spaces and squares (the correspondent policy framework: Progetto 100 Piazze, was also mentioned by interviewee INS9). The areas invested by this program largely correspond to the South-eastern area of
a series of services and infrastructures: above all the Metro C’’ (INS6). The in-between inner areas of Rome cited by the interviewee mostly correspond to the areas of concentration for innovative enterprises and CWSs highlighted in section 5.2.

Those firms cluster on a pre-existent urban fabric endowed with a basic but proportioned set of infrastructures that has grown very fast in the 1970s, sometimes informally or poorly in terms of quality. It is nowadays an area shaped by social tensions and in need of regeneration, but at the same time offering both availability and affordability of spaces. In terms of real estate market trends, figure 5.10 shows the average values of properties in the different areas of the metropolitan region of Rome. The map and data plotted on it come from the database held by the real estate and land registry office (Agenzia delle Entrate); the different zones correspond to an average RE value in the area taking into account the different usages i.e. commercial or residential. Unfortunately, more accurate figures are not available in Italy. However, already this basic categorization offers a good overview of the more affordable situation - in terms of RE values – of that in-between circular sector (in yellow on the map) around the historical centre (in red). The areas of great innovative capacity sit in these more affordable and in-between city fringes, as displayed in figures 5.9 and 5.10. In particular, some of the South Eastern hubs

the city that is now invested by innovation. Culture was the key focus of Rutelli’s mandate; most of the contemporary architectures of Rome were also conceived in the same period (e.g. Auditorium Parco della Musica by Renzo Piano, MAXXI museum by Zaha Hadid, Ara Pacis museum by Richard Meier, the regeneration of the former Peroni brewery with the creation of the MACRO museum, etc.)
(identified by red circles in figure 5.10 - cf. figure 5.11) even fall between yellow and blue RE zones. Most of the times these correspond to some interstitial zones between other more solid urban fabrics and to some infrastructural cuts in the urban morphology of the city (cf. Phelps & Silva 2017). Similar stories can be found in many other cities, one example being London and its City’s fringes, i.e. Shoreditch in the early stages of its development, now home for flexible office solutions dedicated to digital companies (Martins, 2015; Nathan, 2011).

Figure 5.10 – The map displays the real estate trends in Rome based on the OMI database. The former is a service of Agenzia delle Entrate, which allows professionals to visualize the price bands corresponding to specific addresses or areas of the national territory through the GEOPOI portal. It is available at: http://www.agenziaenteatre.gov.it/wps/content/nsilib/hsclad/omi/banche+dati/quotazioni+immobiliari (last accessed 18th May 2018).

It might seem an obvious matter of affordability and post-industrial urban regeneration as for many other ‘creative’ or ‘tech’ city’s brands around the world however, here we are facing a different phenomenon. The romantic idea of peripheral urban areas naturally seeding innovation and human collaboration tended to be criticized by the interviewees. Some of the respondents (i.e. SSA2, INS9, SSA5) declared that an excessive celebration
of hamlets and bottom-up innovation is harming their renewal. The positive bottom-up initiatives might remain marginal, isolated or bounded to episodic and sporadic examples, while a systemic approach instead foreseeing certain interventions from above could be able to trigger and enhance positive externalities coming from a thoughtful agglomeration, and even solve social tensions in the area.

On this subject, INS9 – at the time of the interview elected member of the local authority and lifetime resident of the same borough (Municipio V) - offered a good summary of the situation in the South Eastern quarter or Rome:

“[the Pigneto neighbourhood], is an area that has profoundly changed in the last decades, it has been gentrified, there are now many creative professions, service industries, people with a higher education, that struggle to find a place in a context like Rome […] this is a great input and enhancement towards improvement. […] People are less satisfied with the quality of the urban environment. Fifteen years ago, the area was even less endowed with amenities but no one used to complain, while nowadays there are more services and more complaints. People come to settle here from other middle-class situations, either from the North of Rome or from suburbs in the South. They have high expectations, and this is surely a stimulus for the area. On the other side though, it triggers the displacement of historical inhabitants towards areas outside the GRA, the rise of the housing prices, and the emergence of many bars and other amenities targeting the new residents, as well as the
arrival of nightlife. All negative aspects of gentrification, which have been introduced by the new residents, who are the same ones now complaining about them.” (INS9)

She then continues explaining in details that the area has now become affordable for a class of highly skilled residents, not being able to afford flats in more central locations but refusing the areas where the new developments are, which are sprawled outside the GRA. Those non-places areas - such as Lunghezza – are characterized by “big buildings in the middle of nowhere” and a mall containing all the local amenities. So, highly skilled people prefer to refurbish houses in these interstitial quarters, culturally more charming and preserving an urban appearance (INS9).

To sum up, the words of INS9 depicted some inner city areas, once peripheral, that have been now absorbed in the metropolitan area of Rome and are served by a better and more varied set of infrastructures than the new either informal or sprawled peripheral areas of the big malls. This might seem an anachronistic recall to the American post-modern city from the 1970s depicted by Soja (2000), where the city centre became inaccessible and unaffordable to the most. We can think of free-lances and small entrepreneurs as the new urban poor capable of a change. Even in some American cities like Detroit, innovative firms were called to rescue the urban lagging context. Those are firms that naturally spread in boroughs in need of regeneration with social and economic issues (i.e. the borough of Pigneto in Rome), where even gentrification effects might become positive (INS9).
Similarly, M1 explained that the cultural life of the capital city has shifted towards the above-discussed outer crown of the inner city, which used to house hamlets from the post-war expansion of the city and that have now been re-populated by a new generation of educated residents. This is the result of a slow process started at the end of the 1960s, displacing the historical Roman citizens from the historical centre, now dedicated to tourism and offices. On the other side, the new peripheral developments have been conceived by a bad planning system without recreating proper urbanization dynamics and lacking of social spaces and cultural life. Other than some gentrification effects, INS9 has yet pointed out that settlement’s shift have caused frictions between the historical and new residents. However, under the social point of view the consequences of those contrasts are positive resulting in the gradual expulsion of criminality and illegal migrants making the place unsafe and decayed until only a decade ago. Those areas used to have one of the lowest per-capita income in the whole Roman area as well as the lowest level of education.

The new working spaces also play a key role in the urban regeneration of those areas. This peculiar social context has surely influenced the localization patterns of the CWSs emerged from the bottom-up (CWS1: see section 5.4.1) or “social incubators” (of which a more moderate examples is Millepiani in Garbatella while a more radical one is Officine Oz born on a squatted land in Portonaccio originally belonging to the railway company). In the boroughs where the highlighted social necessities met with a supportive local political framework the resulting synergy made the difference in terms of innovation creation. However, this entrustment condition and the volatility of the structure
of those spaces undermine their resilience over time linking their endurance to the political support they receive:

“The lack of a [regional] law on co-workings, the fact that they are not recognized as a productive segment is a great fault of politics that did not want to systematize [the phenomenon]. […] We are at a crossroad: either [these positive experiences] start to be systematized or they die” (INS9).

Bearing in mind that these new clustering experiences emerge on a pre-existing urban fabric, new planning and governance tools should be crafted to accommodate the latest economic and social trends.

Most of the interviewed actors have denounced a fragmentation both geographical and institutional (for the institutional fragmentation see Chapter 7). Infrastructural connections are widely known as a hard to solve issue in Rome, limiting its economic growth. When hard infrastructures are lacking, enhancing professional linkages and stimulating innovation processes becomes the role of soft infrastructures and social capital (cf. Bathelt and Boggs, 2003; Puga and Trefler, 2014). At the local dimension of the boroughs, this issue explains the concentration patterns of the Roman CWSs - spread along the two underground lines’ axes (figure 5.9) - and their role as intermediaries of a new economic perspective (see chapter 6).

Citing the words of M5:

“the ‘glocal’ economy […] [settles] on complex territories like that of Rome, where people struggle to commute from one neighbourhood
to another, a social structure like such of Rome really unveils this concept. […] Opening local labs of different typologies helps the territory and the people living in the area […] Imagine working until 5pm and then crossing Rome with all its traffic congestion”.

Minimizing people’s commute is certainly one of the main reasons for the emergence of this sector of inner urban peripheral crown of innovative agglomeration; then networking and real estate affordability are other reasons encouraging the increasing demand for CWSs.

Despite the new means of technology, face-to-face encounters are specifically relevant at the first stages of an activity, which might become difficult in a fragmented and sprawled city like Rome were movements are difficult, infrastructures are lacking, and the traffic is congested. In particular, the interviewees coming from the first CWS1’s (see section 5.4.1) tended to concentrate more on concerns over the negative social aspects of the physical fragmentation of the city (e.g. the lack of communication, the difficulties to overcome physical barrier that slows down the processes of knowledge and the information circulation, or the isolation of areas presenting social tensions).

While, those more linked to the start-up movement from CWS2 (see section 5.4.2), tended to be more concerned about achieving a solid reputation for the city, a quality brand for this upcoming sector of economy by developing a better mobility network, and a safe environment mostly to attract investors. According to both perspectives, CWSs emerge as spaces to link isolated peripheral areas or even to attract venture capitals in a *milieu* where the professionals lament a shortage of arterial roads. Both group of CWSs’ respondents have recognized
the importance of local ties for the contemporary urban economy with the emergence of several intermediaries as a reaction to a vaster situation of crisis.

In this sense, many of the respondents have identified the excessive focus given by economic institutions to entrepreneurs and start-ups with a symptom of a lagging national economic context. The renewed centrality of cities and urban economies in national GDPs accountancy has been already identified by literature as a sign of political and economic instability (Barber, 2013; Katz and Bradley, 2013; Rossi, 2017). Equally, the above discussed geographical limitations of the city of Rome offers a parallelism with the comparative analysis between S. Francisco’s and Los Angeles’s urban economies led by Storper et al. (2015). In that case, the discriminant factor determining the innovative capacity of the first city was found in the development of innovative solutions to overcome some physical barriers, supported by the local institutional dimension. Nowadays, as already in the Third Italy, social capital is the way to overcome the presented infrastructural barriers. However, differently from the industrial district’s context the current agglomeration of innovative businesses has an urban settlement and it discloses a lagging socio-economic context.

There is a threefold explanation for the emergence of this new geographical and social model of agglomeration. First the effects of globalization and the new means of communications, which have impacted massively on our lifestyles and on the labour market imposing a closer relation between production and consumption of goods (this is explained by the close connection between makers and their clients and by the infinite customization
opportunities offered by digital fabrication). Secondly, the cross-fertilization of skills and knowledge: innovation nowadays means mixing different area of specialization and proposing new solutions, districts cannot be organized horizontally anymore in the way typical from the Third Italy. They need instead to be vertically integrated. Finally, the general downturn imposed on many capitalist economies and the consequent neo-liberalization of social securities and jobs has imposed austerity to the new enterprises (cf. Lazzarato 2009). They do not need any more big plants or dedicated warehouses and premises especially at the beginning of their business adventure, but social proximity and networks are more than ever relevant. All of which is guaranteed only by an urban environment, compatibly with the availability and affordability of its spaces.

In the Fourth Italy context, CWSs are increasingly becoming the attractor element for regeneration strategies for the intrinsic promise of jobs. Similar set of considerations applies even to techno-poles i.e. Tecnopolo Tiburtino in Rome. Public expenditures cannot cover anymore in full the excessive weight of their maintenance. The available public funds are currently being redirected to renew and transform them in CWSs spaces featuring stat-up incubators or accelerators. As they do not offer any adequate nor attractive urban location, they can only leverage on the proximity to motorways, changing the target to logistic arrangements of car accessibility (INS7). The main ingredient to promote their artificial regeneration is the promise of social proximity. As mentioned by M1 and M4, small and micro firms live nowadays in a “glocal” dimension: they are connected to a global network of knowledge but then they
are tied up to the local scale of the neighbourhood and to a close group of collaborators to survive and avoid isolation. This explains also the success of CWSs before the assessment and quantification of their economical return and the impact on the surrounding area. Those spaces are the factories from the Fourth Italy, which - again as another symptom of economic instability - are not necessarily producing physical goods.

![Map of CWS distribution in Roman boroughs](image)

**Figure 5.11** - The map shows the distribution of CWSs in the various Roman boroughs (updated to 2017). Areas of concentrations emerge in Municipio I, IV, V, VII, VIII (respectively noted as 1, 4, 5, 7, and 8 on the map). Those areas correspond to the areas of concentration for innovation as explained in section 5.3 and compare it with figure 5.9. Municipio I or the historical centre of Rome, mainly hosts CWSs from the third typology, being purely a commercial product. The distribution here represented shows a clear correlation between the location of CWSs and the innovation patterns over the city.
5.4.2 Planning policies for agglomerations created on existing urban fabrics.

As already highlighted several times throughout this chapter, this economy emerges on an already existing urban fabric. Differently from the Third Italy where the industrial development meant also urbanization, in the Fourth Italy it means restructuring and regenerating cities. Therefore, the new processes of agglomeration and innovation creation are also influenced by certain planning aspects like real estate trends, which were outside traditional concerns and scope of agglomeration theory relating to traditional industrial districts. Diversity here rather than horizontal specialization is a plus. Social capital is still regulating professional linkages in the Fourth Italy, but actors playing a role in it are more variegated and they also include satellite companies, firms or institutions outside the cluster. The globalization of markets has changed the world and its barrier, and the new concentrations of firms arise in a geography relevant to the new necessities of emergent businesses: the city.

This brings consequences also to the built environment becoming an occasion to regenerate the relevant urban areas. The planning system plays a crucial additional part in generating local economic development in the new model of agglomeration, for which the new challenge become finding ways to design and conceive new appropriate governance tools. As from the words of INS11:

“There is a direct link between cultural and creative enterprises and urban regeneration [and] a new way of conceiving and living the city behind this innovation process. Reinventing spaces [through] using
technologies: for this reason, we need tailored urban and territorial policies”.

There are a lot of empty premises owned by public bodies that have a really low economic value in their current form decaying or abandoned; if regenerated they could assume a much higher one especially in terms of social function (INS6) and quality of services offered to the community, which turns out in economic growth and wellbeing.

“Rome is an awaking city”, there are not many big enterprises and so far, its economy has been based on crafts and construction (SSA1). Now that the last sector is extinguishing, derelict and abandoned buildings are assuming new relevance: we need to understand what to do with them and how to use them to regenerate the existing patrimony and the surrounding urban fabric. Even on the branding side, Rome needs to work on the image the city is selling abroad, and improve services offered to tourists and cultural enterprises (INS11; INS13).

Previous experiences in Rome have seen some small-scale reconversions of former industrial or manufacturing sites or even of neglected military bases into “creative clusters” (or distretto creativo as from the Italian name), now mostly privately owned and managed. Those real estate operations are widely known to the general public due to their centrality and to the fame gathered by the correspondent architectural bid (i.e. Ex Caserma Guido Reni at Flaminio, another Portuense 201, less known but probably more effective reconversion of a cow farm in the former productive area of Ostiense/Garbatella/Portuense).
In May 2016, the most recent resolution of this kind corresponded to a governmental decision to allocate 40 million Euros\(^{17}\) to create a dedicated hub for creative and cultural industries in the former Cerimant complex (a former military citadel in *Tor Sapienza*). This site in the East is in the same quarter interested by the new nuclei of shared working facilities and innovation, and it is planned to have a connection with the Opera Theatre of Rome to bring artists and performers in the periphery but also to boost cultural entrepreneurialism and young employment rates in the area. To complete the regeneration project, on the model of the Parisien *Centquatre* centre, an incubation space dedicated to cultural enterprises and a program of similar activities will be added.

Again even the renewal of this complex might recall the not-so-new initiatives of creative cities and clusters meant to attract the creative class (cf. Florida, 2002; Landry, 2000; Porter, 1998), and indeed even the *Centquatre* regeneration project is an initiative that originally dates back to 2003. However, the novelty (which has been a recent addition even to the French case) is the accent put on the creation of new jobs and start-ups. By putting incubation services in the area, whilst only attracting creative minds, the main attraction became the availability of jobs or the possibility of creating one’s own enterprise. Creativity and cultural industries are only a marketing plus: the vector to realize the wished entrepreneurial chimera. After clusters (Martin and Sunley, 2003), start-ups are becoming the new policy panacea disclosing a

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\(^{17}\) The Italian Ministry of cultural Heritage decided at the time to dedicate a billion to culture to regenerate peripheral areas and maintain heritage sites.
neo-liberal approach to planning and the job market (Brenner and Theodore, 2002; Rossi and Di Bella, 2017).

Yet we seem to be still far from having a structured cluster of innovation in Rome. Not many policies are in place to support and enhance the benefits that this new urban economy is bringing. The very few in place are mainly dedicated to funding allocation and microfinance, and they mostly rely on European Union guidelines and structural funds even if managed at the national - or sometimes regional - level (see section 6.3.2 on financial support and funding for innovative firms). At the local scale, which seems the most important dimension for the development of the different hubs represented by the gathering around the various SSAs, policies are still almost inexistent and disorganized.

The highlighted fragmentation of governance - at the metropolitan, regional and even national scale - on the subject of innovative SMEs – is due to the lack of a systematic policy approach, forward thinking planning measures and the stagnation of old fashioned, and sometimes even biased old trends such as that of “creative cities”. A copy-paste approach can be observed among the institutional environment largely influenced by the trends coming from the United States, especially under Obama’s presidency, to recover manufacturing through the democratisation of the most recent making technologies; from here also the big relevancy given to the Maker Faire and the Maker Movement. The imitational trend was raised by almost one third of the respondent with reference by contrast to the more systematic and successful experiences of
Barcelona, Paris or Berlin, where targeted policies were developed by formal
institutions (as cited by INS5, INS6, M2, M3, M4, E1, SSA5, F8, E3).

For that matter, one over three interviewees who set up an SSAs or an
innovative business in Rome had been working or studying abroad, deciding
then to import those experiences back home (e.g. SSA2, SSA4, SSA5, SSA6,
F1, F2, F6, F7, M2). However, all those positive initiatives at the local scale
risk to remain a group of isolated episodes without concretely contribute to the
regional and metropolitan income if they are not put into adequate value. Once
again, a parallel with the raising condition of the Third Italy is offered by the
influence of the American situation (cf. Antonio and Bonanno, 2000) and by
the informality ruling the emergent ecosystem. At the time of the theorization
of the Third Italy by Bagnasco (1977), the extent of contribution to the Italian
GDP of the industrial districts was not completely clear and the policy
framework for economic development and innovation were completely ignoring
industrial districts. The same thing happens for the Fourth Italy, with the
addition also of the planning realm for its peculiar geography. The
development of this new geographical model opens the path to wider research
and policy design. Conversely, the prolonged lack of a systemized set of
policies might result in a great loss of potential and in a missed opportunity for
Italy.

5.5 Conclusions

In this chapter, I have analysed the geography of the Fourth Italy answering
the second of my set of sub-research questions (what is the geography of this
emergent urban economy, and why do cognitive-cultural activities choose such urban locations?). The emergent geography of innovation for small-scale businesses have very strong urban roots, as demonstrated by the locational choices of makers, the distribution of innovative start-ups and the locational patterns of CWSs. Findings suggest that the diversity and the cross-sectorial knowledge and skills characterizing the new entrepreneurs, as well as their necessity to build collaborations, push them towards an urban settlement. This particular environment allows indeed joining the global pipelines of knowledge (crucial to survive in a globalized job market) with the local political support (vital instead to very small firms with limited initial capitals). However, this revival of cities as incubators of new activities (cf. Duranton and Puga, 2001; Hoover and Vernon, 1959; Jacobs, 1961) reveals a lagging economic context and it stems as a reaction to the lack of traditional jobs and adequate financial and governmental support.

In this framework, CWSs have emerged as smaller satellites or “hubs” of these urban concentrations or “ecosystem” of innovative entrepreneurs, acting as reference points for the various entrepreneurs. As explained in section 5.3 these hubs correspond to geographical concentrations of innovative businesses within some specific parts of the city. Those are interstitial areas of the inner city, just outside the historical centre, offering reasonable transport connections as well as a provision of available and more affordable premises in need of regeneration. In addition to that, the local authorities display a positive inclination to support innovative entrepreneurial solutions as a way to trigger urban regeneration and to mitigate social tensions. This geography
largely corresponds to the locational patterns of the various CWSs on the Roman territory. The working spaces have indeed changed, with a bigger demand for affordable and flexible spaces endowed with reasonable transport connections. The study has identified three different typologies of CWSs displaying a different impact on local economic development.

Each typology is defined by its target users and locational choices. CWS1 or the ‘social incubator’ defines a groups of spaces and professionals more embedded in the local social context while CWS2 or the ‘business incubator’ refers instead to a group more concerned about the exposure offered by the location and by the economic returns of attracting investors. CWS3 or the ‘commercial incubator’ finally, stands as a sheer commercial products; the category does not participate much in the local development of the city or in creating multiplier effects for the ecosystem, either than helping the establishment of its reputation and producing income in the real estate and sharing economy sectors. The major issue limiting the development of the ecosystem resides in the lack of connections, either physical or institutional, between the various hubs, making the constellation incomplete. These connections might be achieved by reforming the planning strategy of the city as a whole, and by the establishment of some coordinated and tailored new governance tools taking into account the new actors of innovation.

It is fundamental to underline that these new concentrations of firms are emerging on a pre-existent urban fabric; therefore, there are other variables than just agglomeration theory’s *spillovers* to take into account when
investigating it. Real estate market trends or matters of social innovation become for instance matters influencing the locational choices of professionals, which were not a discriminant during the Third Italy. Conversely, some of the traditional concepts assumed in agglomeration theory and peculiar of the Third Italy still applies to the Fourth. For example, the value of social capital and local political support or even the cultural embeddedness of professionals in the sector. The traditional theorization from agglomeration theory alone is not enough to properly frame and understand the contemporary clustering effects on the development of cities and their economies but it needs to be complemented with notions taken from other fields such as planning.

Yet we are not able to measure the impact of this new flexible sector on the national GDP as well as on long-term regeneration strategies. This lack of data also implies the necessity to develop new policy and assessment tools even in the economic sector. Similar ecosystems of small enterprises producing innovation are emerging in many cities around the world. The phenomenon is therefore relevant for not only the Roman and Italian context, but it represents a matter of concern for many traditional economies from the global North. Just like the Third Italy in the past, the new geographical model could represent a window of observation on general world trends for matters of local economy to be investigated further.

Finally, another important characteristic from the Fourth Italy pointed out by this chapter is the way it suggests an uncertain socio-economic context and an attempt to overcome a failing neo-liberal attitude to social securities, but
most of all the lack of jobs. The areas in which innovative firms are settling are not premium central locations, but city fringes where small clusters of manufacturing and a certain working-class attitude were already present, and where now there are affordable and available spaces served by convenient transport linkages. Despite the decaying and complex environment and the informality and uncertainties coming from an institutional fragmentation, these in-between urban areas still preserve a sense of place and the urban buzz of cities. The same condition cannot be found in the most recent developments; those neighbourhoods have expanded Rome in the outer suburbs without planned facilities nor amenities, making human contacts and relations even more difficult. The next chapter will analyse more in depth the role played by institutions in this process of agglomeration creation as well as the other dimension of this geography of the uncertainty: the networks of trust and the new informal intermediaries of innovation.
6 Formal and informal institutions and their role in the development of the ‘Fourth Italy’.

6.1 Introduction

This chapter explores the role that institutions have played in the emergence of the Fourth Italy, and at the lower scale the way they were involved in the origin of an ecosystem of innovative entrepreneurs within the city of Rome. The institutional influence on processes of innovation and cluster creation has largely been investigated by economic geographers (Amin and Thrift, 1995; Barca et al., 2012; Martin and Sunley, 2003; Porter, 1998; Tomaney, 2014). This is a compulsory step especially in contexts like Italy, where there is historically an embedded system of ‘untraded interdependencies’ (Storper, 1995), whose most iconic example was represented by the Third Italy.

The current investigation intends to track and to describe all the different types of formal and informal institutions involved in the process with an almost forensic approach. However, other than a simple definition of the key actors and stakeholders I aimed to understand the nature of the initiatives and connections in place (either voluntary or informal) and the institutional awareness of a “cluster creation”. A snowball sampling approach, used throughout the interviews, has allowed to track and explain the different types of connections entertained by the various actors, as well as to define formal and informal relations established among the different network’s nodes. Beyond identifying the key actors and stakeholders, I intend to question and discuss the cause and effect relations of the ecosystem’s emergence (cf.
Storper et al. 2015) to understand the kind of support needed from the institutional actors to foster this new opportunity for urban economic development.

In chapter 2 (sections 2.2.2 and 2.6), it has been highlighted how the role of institutions in the process of innovation or clusters creation was extensively tackled by the literature in economic geography, and even enthusiastically celebrated by traditional agglomeration theory (Amin and Thrift, 1995; Rodríguez-Pose, 2013). More recently the literature has seen a revival on the investigation of the crucial role (Mazzucato, 2013) or the negative effects (Mason, 2015) of governmental expenditures and institutional measures on innovation processes and new jobs creation. However, most of those studies tend to focus on Silicon Valley’s type of innovation creation and technology clusters, or manufacturing processes at the big scale of multinational productions (Engel, 2015; Storper et al., 2015). This leaves a gap in the investigation of innovative processes and small entrepreneurial activities at the local scale of the urban environment.

The primary aim of this chapter is to provide an explanatory review of the institutional involvement in these small-scale urban processes. An incremental contribution to the general knowledge on the subject of cluster creation and its planning implications is provided. This section ties up with the existing theories, questioning the institutional awareness of the emergence of a Fourth Italy - or in other words of an ecosystem of innovative entrepreneurs - while also addressing the counter perception of professionals in the field.
To identify any possible path dependency, the investigation is built upon interviews led with the representatives of key formal institutions of the Italian capital city. They were selected at various scales and competencies: local administrative authorities (i.e. councils, municipal authorities and line agencies etc.), the Lazio region with its regional agencies devoted to innovation and labour creation (i.e. BIC Lazio, Lazio Innova), traditional economic institutions (i.e. trade associations, the Chamber of Commerce and its line agencies etc.). As highlighted in section 2.2.2 of this thesis, it is crucial to recall that institutions played a decisive role in the development and flourishing of the Third Italy and its industrial district *milieu*.

The Italian context with its embedded system of untraded relations (Crescenzi et al., 2013; Granovetter, 1985; Hodgson, 2003) suggests a continuity in this pattern also in the genesis of the Fourth Italy. However, other than the economic challenges imposed by the global economy, the new technologies and the imitative influence coming from the American model (Gramsci, 1968; Lovering, 2009), the biggest change between the temporality of Third and Fourth Italies stands in the role and influence played by the European Union and the pressures of its guidelines (determining the allocation of structural funds). The institutional response to those pressures is what I intend to unravel in this chapter pointing out path dependencies and continuities in the institutional behaviour from Third to Fourth Italy.
The themes that emerge from my data collection and analysis have been grouped under the following lines of argumentation:

i) *building an ecosystem of innovation in Rome - positive and negative effects of the institutional involvement in the process;*

ii) *institutions supporting the creation of a new entrepreneurial class: the educational dimension of the process;*

iii) *new intermediaries and informal institutions arising.*

Besides the traditional key actors, some new informal institutions have indeed emerged corresponding to shared service accommodations and start-ups incubators or accelerators. They perform an important role in the dissemination of opportunities for new business and of a new education to innovative entrepreneurialism. This chapter will explore and discuss those themes one by one as listed above, and it will finally draw some more general considerations on the difference between professionals’ expectations and the goals set by the authorities in charge. Finally, I will draw a comparison with the typical institutional framework of the Italian industrial district context disclosing a continuity in the system of untraded interdependencies (Storper, 1995) and institutional support (Becattini, 1998; Markusen, 1996).

6.2 Building an entrepreneurial ecosystem of innovation in Rome: positive and negative effects of the involvement of formal institutions in the process
6.2.1 A lagging institutional framework and the physical and social fragmentation of Rome.

Crises as the main driver to the emergence of new innovative businesses, and the relating support among the national and local institutional framework, has been a common thread throughout the investigation. Some of the interviewed professionals have seen this reaction to the current crisis as an opportunity for innovation and change [i.e. INS6; INS2; INS5 cf. Bathelt and Boggs (2003)]. Others tended to reverse the argument pointing out that given the current context of political and economic crisis this was rather the result of a lack of other better opportunities: the only available funds, coming from the EU, are mainly directed towards the set-up of new enterprises and the related enabling services. This affected is the direction towards which professionals started to be oriented (E3; INS10). The conundrum remains unsolved, however a disruption with the past is surely offered by these new entrepreneurial opportunities, and the responsiveness of the existing institutions is crucial to crystalize such disruption in real economic growth for the city.

The institutional involvement behind the emergence of an ecosystem of innovation in Rome has also to be read in the wider picture of a general neo-liberal governmental approach, which is largely expanding in the Western world (Brenner and Theodore, 2002; Lazzarato, 2009). Especially after the general downturn - following the last financial crisis in 2008 - two main focuses among the policy agendas for economic development have emerged in most of the EU member states: first, the institutional support towards entrepreneurialism and secondly, the focus on cities as a nexus of new
activities and economic growth. This neo-liberalization of the job market mainly came as a consequence of a lack of traditional corporate or public based jobs; the new approach together with the effects of globalization and technology development have contributed to deliver some major changes in the labour market of small enterprises as we have discussed in Chapter 5 of this thesis. The current section will instead shed light on the role that formal institutions are playing in the development of the Fourth Italy.

I here intend to shed light on the institutional capacity to build a proper ecosystem of innovation within the city of Rome and to identify weather this was a voluntary top-down approach or rather a passive adjustment of some of the institutional measures to the surrounding circumstances. As seen in chapter 5, there is undoubtedly an increasing pressure on cities, which are emerging as the central *milieu* of innovation in the Fourth Italy. However, as highlighted in the literature, this is also very often a signal of political and socio-economical dysfunctions at the national level (Barber, 2013; Katz and Bradley, 2013). As most of the interviewees have confirmed, this general situation of crisis applies to the case of Rome and more in general to all major urban centres with their set of cognitive-cultural and innovative businesses. As a consequence, the investigation around the Fourth Italy becomes most of all a matter of establishing weather the corresponding *ecosystem of innovation* corresponds more to a myth created from above or it is rather an underestimated reality.
To do so, I have tried to check if the perceptions of formal institutions on the built of this entrepreneurial ecosystem of innovative businesses corresponded to the point of view of professionals. Most of the interviewed stakeholders shared the ideological belief that innovation should happen from the bottom-up, free from any artificial constraints (INS2; INS5; M1; F1; INS8; SSA3; F2; SSA4). However, the reasons behind this statement were different according to institutions or professionals. Among the former, the institutional interference in the creation of a cluster of innovation was led forward by those supporting a grass-root approach to making and the democratization of the productive chain in an evolutionary framework of capitalism. However, criticism tended to focus on the structure of the current measures in place, rather than to the involvement of institutions in processes of innovation creation. For example, the procedures for the allocation of funding are considered too slow and complex, or the efforts deployed towards educational purposes too evanescent and not very useful for start-ups already launched on the market.

On the other side, the institutional representatives seemed to encourage bottom-up innovation as a way to wash hands from an active involvement in the built of a cluster and to hide struggles in economic growth. The excessive care towards education (see also section 6.2.3) can be interpreted as an institutional exposure to cover the current employment issues. This obsession for the creation of a new class of entrepreneurs can be easily compared to the enduring search for ‘the creative class’ and its attraction that took place in many parts of the world following the establishment of Florida’s (2002) ideas.
Many respondents both from the professional and the institutional side have indeed lamented a fragmentation or an inadequacy of the institutional framework, and a lack of proper policies structuring the cluster as such. This was mentioned by 18 of the 35 actors interviewed, corresponding to the 51% of the whole sample. Those interviewees have above all pointed to the institutional fragmentation between the regional and local level. The region has the task to administer and translate measures set at the national scale and coming from the EU. Then, a lot of initiatives are in place at the very local scale of the neighbourhoods, especially in certain areas of the city (see Chapter 6 on the localization patterns of the phenomenon). However, the two dimensions do not seem to talk or cooperate among each other, finding an impediment at the city scale.

The lower scale episodes are very often not connected and therefore nor systematized nor reproducible, risking being temporary experiments dependent on the elected board of the council. This issue was lamented by all the interviewed managers of the first identified typology of CWS (see chapter 5, section 5.3.1) as well as by several institutional witnesses (e.g. SSA1; INS6; SSA2; INS9; SSA3; SSA4; SSA5; E2; F9; INS13, which on average correspond to 29% of the total sample of interviewees). Those same actors consider this administrative and socio-political fragmentation as the cause of the misuse of the potential capacity of the Roman innovation and the consequent absence of real agglomerative effects in the sector.
Evidence from all the different types of interviewed sources has highlighted the current situation of fragmentation of the public administration, harming the development of a real ecosystem of innovation in the city of Rome. This ultimately tells a story of a stagnating economy in a context of austerity, rather than a successful story of coordinated policy making. F1, a very well-known maker on the Roman scene, now acting also as a talent scout for new firms and innovative ideas, declared:

“We have all the infrastructures, but if you ask me whether all these infrastructures are connected in a collaborative network allowing them to operate and determining the birth of an innovation hub, the answer is no. All the ingredients are there but without a recipe. There is no recipe because at present no one has thought about a hub of innovation for this city. [The city] has not made available to creative people spaces that could serve as premises of the ecosystem. [Rome] has not decided to have a strategic vision over places. So on one side you have the public fab-labs that are like toys, while on the other side you have supply chains that have been settled in locations which are not coherent with this type of innovation i.e. the Tiburtina Valley.”

From his point of view, the missing institutional ring is the municipal level: a coordinated city hall and assembly.

Similarly, SSA6 - manager of the most influential accelerator and venture capital attractor structure in Rome - lamented the same fragmentation of the
political and economic decisional bodies of the city, highlighting the negative effects on the attraction of FDIs and venture capitalists:

“Here in Rome, [this accelerator] is only a piece [of the whole innovation hub]. More investors are needed, there are a lot of incubators in Rome, but they are a bit passive, they are university spin-offs, they are closed into themselves […] To improve we need a city, not only the entrepreneurs: if there are 10 people organizing events it is not enough, if there is not a city behind, institutionally speaking. […] The problem of Rome to attract [investors] is that it should be organized. This way you become a hub, like Berlin, where the houses are cheap, there are young people and venture capitals. […] It is like a puzzle, the city must be organized. […] Being entrepreneurs our objective is primarily to make profits and [this affects] the wealth of the city, but the municipal administration should lead and be collaborative. Here, the public administration is not ready for innovation yet. Why don’t they use applications or products from start-ups for their services? […] They don’t make innovation they talk about it. The public sector should be more aggregative.”

Events should therefore be supported by an adequate planning system, connecting the different urban economic sectors: this is not currently happening in Rome (INS13).

The same type of inconvenience was also admitted among institutional representatives at different levels. INS9, a politician appointed in one of the
local authorities most affected by the settlement of innovative firms and working spaces, pointed out the importance of a structured institutional intervention to allow the maximization of the profits - both economic and social - coming from innovation:

“It is ok at the beginning to first incubate some small experiences and then to make a law, because you have proved that this is a feasible thing and you have some positive outcomes. You do some pilot experiments and then you systematize them. We are now at this crossroad: either we allow them to keep going or not. So far they have counted on local support but now either we systematize them or they will die. Not even at the municipal scale of Rome there is a system. [Professionals] have created their own network, coordinating themselves but this is an important moment in history.”

In other words, the lacking in the planning system risks threatening the resilience over time of this ecosystem of firms. It is so far only a system of different typologies of informal tacit agreements that leads the current processes of innovation [cf. Crescenzi (2013); Storper (1995)].

At the regional level, INS11 - an elected member in charge of innovation policies at the higher ranks of the pyramid - has also referred to this lagging context, confirming the gap in the administration of the city between the regional and very local level of the boroughs:

“The current situation in Rome is a ‘un-government’ of innovation. We have a great potential capacity, but we are not able to translate it in facts. There are universities, research centres, big enterprises,
a set of SMEs very active in some specific sectors, start-ups incubators, public and private actors with very interesting interventional programs. However, there is not a real dialogue among all these actors. This is a serious limit in the political and administrative strategy of the last two decades. In a world where territories chose progressively to have a dedicated vocation to participate to the global competition and they build alliances based upon that dedication, [in Rome] we have missed all of these. […] [The mission is to] create a [new shared] governance system supporting the different institutional actions and developing synergies. The critical issues are: lack of governance and absence of a mission.”

To sum up, the inadequacy of the city governance is hindering its economic growth. Rome, and the other Italian cities in general, need a new governance system. The issue was recognized by all the interviewed institutions at different scales.

In addition to that, the institutional approaches to tackle this fragmentation do not always match the desires and the expectations of the professionals. Both groups generally agree that Rome has all the right numbers to become an innovative hub: cultural assets, availability of affordable spaces in need of regeneration, presence of all sorts of institutions, universities and public offices, necessity of restarting the economy and skilled labour force (as mentioned by the interviewees). However, these elements cannot be put into profit as the city is lacking organization and forward thinking. In particular, 80%
of the professionals have denounced the lack of spaces and adequate funding opportunities as well as the extreme complexity of bureaucracy that slows down the processes of funding supply.

“Innovation nowadays goes quicker than the time it takes to apply for microfinance and actually get it in your pocket so you have to turn to your own pockets or alternative ways such as crowdfunding” (F1; see also section 6.3.2 of this chapter).

Institutions struggle to be coordinated and cooperative; the whole Italian bureaucratic machine is old and in need of renovation and simplification (INS13 and INS6). INS11 has argued the necessity of connecting all the events relating to the key players in the start-up world, to make sure to give proper exposure to the sector. As it will be discussed in section 6.3 of this chapter, a consequence of the highlighted fragmentation is the emergence of new intermediaries and a set of new informal institutions.

The existing system of urban governance tools and economic development policies are neither ready, nor suitable to tackle the necessities of the new urban economy. The former has a clear impact at the very local scale of the neighbourhood that is still difficult to trace and define (cf. chapter 4). As reported by SSA3: “measuring the impact of these realities is very difficult, we should find new metrics”. Then, the interviewee - manager of a Roman CWSs - continues explaining that, despite the presence in Rome of a circle of people believing in this new economic challenge, the city is still at an embryonic stage with respect to the achievement of its goals, being harmed by the complexity and deficiency of the institutions in charge. Several other actors witnessed a
very lively overview of innovative initiatives at the local level, but a lack of cooperation and connections at the higher city scale (INS6; SSA2; INS9; SSA5; SSA6; INS13). A ring in the administrative chain is missing, which corresponds to the duties undertaken by the mayoral assembly. An action plan with a coordinated vision of intervention for the whole city should be designed [INS13 cf. Barber (2013), on the role of influent mayors able to change the destiny and the international reputation of cities].

Before being a story of cluster or innovation creation, the Fourth Italy is a story of lagging institutions and fragmentation, where informality also plays a consistent role especially in the unplanned parts of the city (see also section 6.3.1). Surely, it is the record of a territory seeking for a new economic dedication through innovative paths (Bathelt and Boggs, 2003). However, the usual rhetoric about top-down policy interventions harming to the local development of activities (Fromhold-Eisebith and Eisebith, 2005; Martin and Sunley, 2003) is not applicable to our case. Nor it is the criticism that dedicated policy framework for urban regeneration stops the natural and affordable development of small businesses while triggering gentrification (Zukin, 1982).

As testified by INS9, many of the peripheral neighbourhoods where those innovative units have rooted are areas displaying a lot of social tensions: informal settlements, illegal migrants, and criminality. Here, some of the effects of gentrification would be beneficial to mitigate the frictions between old and new residents (see chapter 5). A similar reasoning stands behind the demand for an inventory of the abandoned public real estate patrimony from the
majority of the interviewed CWSs’ managers, suggesting it as a measure to avoid squatting while making spaces available to start-ups (SSA1; INS2; M1; SSA2; SSA3; SSA6). Both situations symbolize the necessity of new organizational measures and governance for the economic development of the city.

The agglomeration model of the Fourth Italy is different from the previous cases both from the Third Italy and the following era fuelled by the new regionalist trend. The quality of the built environment has an impact on these urban ecosystems but the required governance tools to tackle them are far from recalling the cases of ‘creative cities’ (Landry and Bianchini, 1995; Pratt, 2011) or regeneration strategies fostering urban manufacturing clusters (Hutton, 2010; Tepper, 2002) that might generate rent-gaps and harm professionals. The contemporary entrepreneurial ecosystems like that of Rome are not comparable to the most modern cases of “tech cities” like London, where the institutional intervention has been accused of triggering real estate speculation and a wild gentrification effect (Nathan, 2011). This is because the contemporary agglomerations are a product of economic uncertainty and institutional failure. Here, places and proximity matter at an equal ratio, although we are looking at activities that settle on an existing urban fabric and profit from it therefore, urban regeneration and economics are deeply intertwined.

This is one of the major features distinguishing Third and Fourth Italy. The close link between activities and urban spaces also explains the differences
between this phenomenon and the previous agglomeration processes or even the failure of techno-poles’ experiences, where the quality of the location was not an influential variable. We are facing a new economic geography, differently from the Third Italy of districts, those clusters of activities agglomerate on existing economic and urban tissues. Here, a mutual profitability could potentially be registered both for the firms’ prosperity and the regeneration of the surrounding urban fabric. There are many new variables relating to the sphere of planning and a number of emerging stakeholders that need to be taken into account while tackling these modern cases of agglomerations.

6.2.2 Formal institutions, the public sector and the new entrepreneurial ecosystems: international events and city re-branding strategies.

Most of the major trends, in the long run towards innovation of the Italian regions, trace back to the EU influence and the allocation of structural funds up to 2020. An elected member from the regional board explained that the measures in place on the matter of innovation fit in the key objectives set by the RIS3 strategy of the Lazio region18:

“[it is] to these choices [that] politics responds with concrete actions from financial help to technical assistance, from making places available to set up a business to enhance entrepreneurialism since

18 The Lazio Region has expressed with its Smart Specialization Strategy (or RIS3), a clear commitment in the support of entrepreneurs and start-ups. The major objectives from this policy agenda are: technology enhancement and its application to support social, environmental and health care issues, relocation of the regional industrial fabric towards innovative services and products, targeted R&D investments, collaborations and connections between big and small enterprises and research centres.
the school age and support events linked to innovation. If I should identify the key goals I would say: a) giving a strategic configuration to the Lazio region in the innovation field b) helping existing businesses to grow c) creating new entrepreneurs and employment” (INS11).

The words of the regional councillor with this key set of objectives recurred as an institutional pattern throughout my investigation.

We have stressed already several times the way the European Union has influenced the last decades of policy design with the Italian regions supporting start-ups especially in the field of digital technologies and innovation. At the national scale, this influence has been translated on a number of initiatives supporting new activities like the creation of a register of “innovative start-ups”, the centralization of attentions and strategic planning in nodal cities by both the Ministry of Infrastructures and Transports and the Ministry of Economic Development, and the dedication of microfinance from the Italian Mediocredito Centrale to new small businesses (see section 4.2.2). As we have seen in the previous chapters it is difficult to give a proper categorization to the sector and it is even more difficult to give a definition of innovation and decide what might fall into an “innovation hub”. Nevertheless, a clear line of thoughts emerged from the interviews that corresponds to the desire to intervene on the labour market since the very early stages of the education system by re-introducing crafts and the actual making of things. The ultimate goal being the activation of a more entrepreneurial behaviour and of a new type of manufacturing
production mixing traditional techniques and design knowledge with innovative technologies and software.

Despite these bold statements, the key measures put in place by the regional institutions to reach the target mainly have been translated in ways to allocate micro-finance opportunities to start-ups and/or appointing specialized line agencies such as BICLazio, LazioInnova or AssetCamera (part of the Chamber of Commerce) to promote innovation. The formers have mainly worked following an educational target (see the next section of this chapter) building ties with universities and research centres, organizing international events and setting up CWSs of different types, with most of the efforts concentrated on the Roman metropolitan area.

Lowering the look to Rome and its metropolitan region, the same entrepreneurial promotion is noticeable even among the local institutions. First of all, the capital city is the location of all the main Italian governmental bodies, international offices and embassies, and almost all public administration offices of the country. Despite the public sector being for years the main propeller of the Roman labour market, the current downturn has a twofold possible interpretation in terms of created opportunities. If it is negative in terms of decreased employment capability of the city, it also represents a good chance to exploit and support innovation and creativity having at hand all the possible stakeholders.
The big public engine of the city has been the principal cause of its current state of political and economic uncertainties. The cuts to the public sector due to the current situation of austerity caused a decrease in the number of jobs. With all their connected agencies public institutions represent a considerable cost for the city and the most recent episodes of corruption arisen among many of them (i.e. Mafia Capitale) did not help the economy. Those struggles have forced the Chamber of Commerce of Rome and the Lazio Region to focus their strategies for economic development on entrepreneurs and new businesses. However, building a new economic trajectory for a city needs to follow an assessment of its potentials and a program of funding and support measures. At the current stage, creating new jobs by setting up new private businesses and supporting the resulting socio-economic ferment is seen as the only opportunity to restart the economy.

The role and the impact of formal institutions to generate local economic development for the city of Rome is split between two different points of view. Half of the interviewed professionals have rated the presence of all bodies of public administration in one place as positive. Sometimes they have identified this feature of Rome as distinguishing from the case of Milan, where the private sector is stronger (INS4, INS5, INS8, F5, F7, SSA6, E2, F8). In addition to that, Rome has a very wide catchment area for young professionals coming there to attend university from all central and southern Italy. Students then settle in the city attracted by the possibilities offered by accelerators, venture capitals, and international companies. In this sense, Rome is well endowed and more privileged in the sphere of innovation for the presence of educational
institutions, and the accessibility to funding and other opportunities. However, on the other hand, start-ups and innovative entrepreneurs will end up relating to or working for (or sell their products and services to) the public sector. This relation might represent an opportunity for certain firms, with an example offered by F5: “Rome was the right place because there was an ecosystem with the right people. Our target were developers, and here they are a lot, with a lot of companies working for the public administration. Only afterwards we moved to Milan where there are more classical businesses”. However, this also means that the funding needed to hire those professionals relies on public expenditure. Therefore, the entrepreneurial skills of the government become even more relevant and should be tailored on the new sector to make the difference in terms of economic development, especially in the long run (Mazzucato, 2013).

The presence of a large cohort of public authorities has had a big impact in the organization of events, holding a great potential in establishing the reputation of the cluster (cf. Ramírez-Pasillas 2008). For instance the key to the success of the Maker Faire of Rome, as reported by most commentaries on the event, was the institutional commitment to the event, mainly chasing the American trend (INS1; INS4; INS5; F1; M2; M3; E1). The organization of the fair was conceived as a top-down institutional measure to promote the exposure of new activities.

Despite its American influence and derivation, it offers a good angle to understand the Italian cultural context, whose embeddedness has influenced
the organization of the event and now the development of the ecosystem of innovative enterprises. The Roman edition of the Maker Faire is the biggest out of the US, and it has also been labelled by the owner of the brand as ‘the European Edition’. For the same reason, the Roman organizers have also been involved in another institutional fair promoted by the European Commission in Brussels. Both facts confirm the relevance of the Roman edition showing that even the EU has entrusted the Maker Faire brand to pursue the goal of entrepreneurial support.

But why did Italian regional institutions started to care about the Maker Faire? Some interviewees identified the fair as the result of a lucky synergy between different types of institutions, without which it would have never been possible to achieve such results. In particular, M2, a maker part of the organizer committee, has highlighted the way a notorious business stakeholder, under the American influence, pushed the Lazio region to bet on Maker Faire. The event was seen as a tool to encourage and attract digital fabrication and the related firms, triggering new economic growth in Rome. A parallel appears again with the important period of Americanism that led to the emergence of the Third Italy in a post-Fordist scenario (Antonio and Bonanno, 2000; Gramsci, 1968). Under former president Obama’s government, the USA have seen the introduction of maker spaces into schools and the launch similar measures to enhance a revival of urban manufacturing and re-instil a culture of entrepreneurialism to fight the economic decline of post-industrial cities like Detroit (Kalil and Rodriguez, 2015). Similarly, the period between 2013 and 2018 has seen the Italian Government led by the Democratic Party and in
particular under Prime Minister Matteo Renzi (2014 to 2016) pushing to emulate the American experience in an action towards innovation and economic development.

The fair is therefore particularly important for the exposure it can grant to those innovative firms. The purpose has been widely recognized among the interviewees both from the professional and the institutional sides. Institutional parties such as INS5 or INS3 cared about the branding power of organizing an event dedicated to innovation in the ‘Eternal City’. While most of the respondents from the pilot survey led in October 2015 rated the fair as a good opportunity to activate knowledge spillovers (see chapter 4). However, one year later some of the professionals interviewed had already started criticizing the organizers, blaming them of using the fair as an institutional tool to expose the creation of new enterprises as positive effects of an aspired economic growth strategy rather than just another palliative measure (SSA3; E3; SSA4).

Some more pragmatic testimonies have defined Maker Faire as an educational tool (E1 and E2), considering it a starting point to establish the wished connections between universities and an evolving job market, other than a good branding opportunity to establish a reputation for the city of Rome. The organization of a big event alone is not enough to establish a cluster. We have seen how the fragmentation of the public administration is harming the development at a bigger scale of some very good local experimentations. Based on that, a debate is generated on the way the planning system - and more in general the public sector - should be renovated to address these
changing realities. The bigger theme emerged from the interviews was the educational target of institutions which almost monopolize the measures in place to support the ecosystem. I investigate this aspect in the following section of this chapter, considering it a sign of the still embryonic character of this urban agglomeration and of the inadequacy of the measures currently in place.

6.2.3 Educating the entrepreneurs of the future

Following the trends highlighted in the previous section, many educational measures are in place within the whole Lazio region at different scales and with different targets. These opportunities mainly aim to support and guide entrepreneurs in all the different stages of their journeys, from setting up a successful business idea to dealing with failures and all the bureaucratic and financial consequences of setting up an enterprise. In the last few years, for instance, some line agencies of the region, such as BIC Lazio or Lazio Innova - notably established to design measures and tools to stimulate innovation and economic growth - have devoted their work towards the support of entrepreneurs and start-ups active in the digital fabrication scene.

Hence, some of those agencies have established - and now manage - a network of regional fab-labs, where short-term learning programs and experiences are dedicated to schools and young students (e.g. the ‘Start-up school lab’). Similarly BIC Lazio with a group of Roman makers – already sharing a long-term collaboration relation - have promoted ‘Fab-City’, a program for the widespread integration of fab-labs and digital fabrication
machines in the educational offer and the equipment of schools. In particular, F2 - the manager of the main regional fab-lab and part of the Fab-City board – declared: “the objective of such places is to stimulate entrepreneurialism among the youngest and especially among school-age children”. It is important to underline that the same makers - who are well known among the innovation scene of Rome - are directly contacted by the key institutions to manage those regional spaces and/or to host the educational programs and training courses under a contract of services.

Several interviewees have also underlined and positively rated the presence of most of the main national public research institutes on the Roman territory (e.g. ENEA, Centro Nazionale di Ricerca CNR, or a system of two Technopoles: Tecnopolo Tiburtino in the East of Rome and Tecnopolo Castel Romano in the South) and of more than 20 universities (three of which are public). They attract more than 300 000 students in higher education per year and make Rome the biggest university city in Europe (as reported by E1 and SSA6). The presence of future young professionals holding higher education degrees has been identified from respondents coming from different categories (firms, formal and informal institutions, NGOs and cooperatives) as one of the main ingredient of the ecosystem of innovation of Rome.

INS4, from the Chamber of Commerce of Rome, has underlined the presence of many public research centres as a key asset to build an entrepreneurial culture. However, he also observed that an expenditure of 2 billion and 996 million Euros for R&D still corresponds to a limited technological transfer from
the public research to private enterprises. Differently from examples like MIT in Boston, in Rome the knowledge coming from research is still not fully exploited. F1 specified that the presence of many higher education institutions is a good asset especially as most of the local innovative activities or start-ups arise as “spin-offs of the Roman university system”. However, he also identifies a flaw in the way traditional educational channels are connected to the labour market and to the manufacturing world. Despite the size and the number of research centres and universities on the territory, they are still detached from the professional world, with connections mostly relying on the new informal intermediaries, such as CWSs, that will be further detailed in the following section.

An inclusive approach towards the new manufacturing technologies and entrepreneurialism is still quite a new thing. Some respondents coming from making firms lamented the lack of update in the disciplines taught in schools and universities. Under the general chase of a local Silicon Valley’s version, even the main Roman universities have tried to develop their own incubation or acceleration programs, dedicated to young talented graduates willing to set up a new promising business idea. Waves of financial and social support for digital fabrication and applications came in different shapes: start-up boot-camps, programs of incubation or acceleration, innovation pitches, or hackathons, are only some of the most popular words used to define these trainings, which are meant to teach on a short period of time how to become a successful entrepreneur.
Accelerators and incubators managers declare that their role is educational and complementary to that of the universities. The programs vary from time spans of a couple of days (i.e. Start-up Week-end), to five months for the longest acceleration programs. This is the time for the acceleration program offered by Luiss Enlabs, which follows a start-ups from the very early development of the business idea to its launch on the market (SSA6b). Within this program, “entrepreneurs to be” learn how to recognize whether a business idea can be successful, as well as practical ways to deal with a real business plan model. They learn how to define a clear mission, to assess and identify their competitors, to target clients and deliver successful marketing strategies, to refine business plans, ways to deal with eventual struggles and failure (INS8). Above all though, structures like Luiss Enlabs also allow encounters with venture capitalists and other funding opportunities, assistance on market responses, and capital management.

Findings show that in the start-up field the private sector is yet more solid than the public. In Rome, the most successful initiatives of connecting higher education, and recently graduated professionals looking for a career as freelancers come mostly from the private sector (e.g. the many and various initiatives promoted by the private university ‘LUISS Guido Carli’). Examples from the three public universities do exist as well but they are less successful. The University of Rome ‘Tor Vergata’ has a certified start-up incubator, Peekaboo, which is affected by its peripheral location. Both “La Sapienza” and “Roma Tre” have promoted spin-off initiatives, now closed, for partnerships and funding dedicated to start-ups, that are less well-known and with fewer
examples of successful outcomes on the record. On the contrary, initiatives linked to some external companies (now only semi-public) such as *Enel, Tim* or *Poste Italiane* seem more successful in terms of actual capitals employed to fund activities and professional outcomes.

As a confirmation to this trend, E2 - an academic involved in many of this partnership programs between university and labour market - has identified four key points for the creation of an “ecosystem of innovation” in Rome and much relies on the way capitals are distributed and the creation of a new attitude towards business:

“If you want an ecosystem of innovation or a creative hub, or some start-ups you need 4 things in chronological order: 1) the mentality, people need to be willing to work interdisciplinary but also to think that being an entrepreneur and risking is a beautiful thing, that if you fail is not a tragedy, but it is going to be a tragedy if you are not committed and you wait for a solution coming from the outside. Then we should open up to universities and tv channels, young people need to think that it’s cool, for instance my daughter’s boyfriend, he studies at LUISS and he wants to become an entrepreneur, this was unconceivable a few years ago. 2) The second thing we need are services helping the transition from “I want to do it” to “I am doing it”, so training courses and accelerator programs with mentors. 3) A financial system with venture capitals or some fiscal measures helping the newborn enterprises to go on
and grow 4) a market exposure where big companies can buy those start-ups or employ their services.

In Rome we currently have the first thing, the second is at a good development stage, the third is starting even if it is still difficult to find big capitals: a young man looking for a starting capital of 200,000 will sooner or later find them, but if he is looking for 2 or 3 million it is still difficult. While the fourth point is still difficult, ENEL or TELECOM are supporting start-ups but it is still not enough. The public administration should also support start-ups and open innovation. So out of 4 necessary pillars we only have 2 and a half of them in place.”

Start-ups and a new entrepreneurial culture really seem to have become the salvific solution to the economy. In section 4.4, we had already seen that “ecosystem of innovation”, “innovative or creative hub”, “start-up movement” were the most popular expressions used to identify the agglomerative phenomenon. The same words also recur on the websites of the Roman universities in their dedicated sections built in the last couple of years for the entrepreneurial and start-ups spin-offs. The link between universities and the new agglomerations is quite relevant. Universities showcase all the sponsored events, seminars and opportunities for new entrepreneurs including the meetings with venture capitalists and other actors of the city innovation scene both private and public.

The connection to research hubs and their spin-off facilities is very important, but it is also relevant what happens outside the traditional educational
channels. In the regional area of Rome, the offer of trainings and courses is incredibly wide and varied. It represents a resource not only for the aspirant entrepreneurs or innovators but also for the people delivering classes. Many of them are sponsored (or even funded) by the Lazio region. Anyone who wishes to provide trainings in this framework needs to be registered and certified in the regional database; a similar system applies for those attendees who are benefitting from grants. Most of the Roman makers, met during fieldwork, received their main source of income from educational purposes. Beside those financed by Regione Lazio, there is also a whole range of courses organized on private basis, mainly by the different range of co-working spaces or fab-labs of the Italian capital city. INS11 - an elected member of the regional board - points out the lack of dialogue between the different public and private actors offering interesting program of intervention on the educational side.

In some cases, some deeper social inclusion messages are embedded in the available offer of trainings. SSA3 reported that his private-led co-working space dedicates most of its offer to the organization of courses that are not always meant to train new professionals. Some of these classes are instead simply dedicated to the spread of new technologies, or to deliver basic knowledge. An entrepreneur working in an interdisciplinary field might need to assimilate basic notions from different disciplines:

"Fordism does not work anymore. If I am a system engineer but I have some notion of graphics or web-design, I will feel better in my life, because it can always happen that you cannot call the expert
and you have to sort things out on your own. So you need basic insights from different fields”.

Then the manager continues:

“These are all basic courses from 16 to 30 hours, given by qualified teachers with the objective of giving people the cognitive tools to understand the contemporary society. If you don’t know how society works or how marketing has evolved you don’t even know how to benefit from your rights as a citizen. These are not professional trainings. […] You don’t come here to find a job with that training, even though sometimes it might happen […] We want to give people tools to be able to intervene and not be subjected to technology […] to open their minds on the evolutions of the society […] We intend trainings as for “mass-training” so accessible to everyone but on our disciplines: digital arts, visual arts, new technologies, computer science. It could be the key both to fulfil our objectives and to reconnect with the surrounding neighbourhood. So we made this deal with the UPTER University or “Università Popolare di Roma”, which was born as the third age university of Rome and still takes a toll for it […] We have chosen our teachers and our didactic offer: 50 subjects with three main trajectories: visual and digital arts, computer science and new technologies, self-production”.

Other than a continuous reference to cognitive-cultural capitalism, these statements show that such educational purposes are also endowed of strong political ideologies. However, often the institutional point of view clashes with that of professionals.
The highlighted democratization of knowledge and of the new technologies can be reconnected to the key grass-roots trends from the Maker Movement. This intervention on the education is conceived and exposed as a tool helping those at the margins of the society: both for young people, and for those who have recently lost their jobs. However, there is a substantial difference between the grassroots approach and the institutional one: the former uses the educational argument, pushing to shape a new class of free-lance workers, in an expansion to the societal job provision of the general neo-liberal trend used for governance (Raco and Street, 2012). In the current crisis, this is a measure to face the governmental struggles in the delivery of traditional employment.

On a similar trend, the director of one of the regional line agencies for innovation INS8 stated:

“once this [new entrepreneurial class] will be spread, there will be a whole range of activities, spokesmen and players both public and private, many of which entangled with Academia, that [will and] are already moving to make Rome an attractor of good enterprises and to become the place to generate new ideas”.

On one side, the desired changes in the educational system are a declared way to create a new reputation for the city of Rome in the sector of innovative services and applications but on the other, they are also a strategy to create new professional figures and stakeholders.
In this emerging labour pooling, the public and private antagonism is still quite relevant. SSA3 for instance have pointed out that the role of formal institutions should be that of monitoring and allocating funding; formal institutions should not interfere with their own jobs (i.e. setting up regional fab-labs, incubators and other SSAs is seen as a form of competition). In general, the lack of a clear structure in this new “ecosystem” is lamented by several professionals as an issue creating an obstacle to its growth. Especially, the lack of a clear division in the governance roles creates a sense of confusion that should be tackled.

Maker Faire, the major international event organized and supported by the main business institutions in Rome, also has similar aims (both exposure and didactic display). Several interviewees considered the fair as an educational tool for its attention to scientific divulgation and family engagement (E1; F1; E3). The same set of considerations applies also to the other gathering events flourishing around the start-ups and innovation world even if less popular and mainstream (e.g. ‘Start-up weekend’, the ‘LeanStartUp’ events, and the various start-up pitches organized by the different incubators). Beside the typical purposes of exposure and knowledge spillovers creation (Bathelt et al., 2004; Power and Jansson, 2008), these events also contain an educational scope. Given the success of the fair, this institutional push towards a re-education of making and new businesses has been so far relevant in Rome only for an initial promotion of the new agglomeration formation.
The parallel with the Third Italy of the industrial districts - the previous location for innovation at the scale of SMEs - is inevitable. In the agglomerative context of industrial districts from the Third Italy, the Marshallian “industrial atmosphere” (Marshall, 1920) was the necessary condition to create a dense labour pool in a specialized sector. With the geographical shift towards the urban environment of the Fourth Italy, there is a need to re-educate people and labour forces in environments. The reason is primarily twofold and originates from the different relation between local and global forces triggered by the globalization of the economy and of technologies. These two main causes relate to the themes analysed in the previous empirical chapters, and they ultimately respond to:

(a) the broad and more heterogeneous set of activities, responding to a more vertically integrated model of agglomeration, with the Fourth Italy sectors requiring a diversity of skills and the so called lifelong learning

And

(b) the different geography and the settlement of those ecosystems in locations that have not participated in the economic growth of the Third Italy phase but might have residue of Fordist industries and skills.

Under these circumstances, the spread of knowledge is also conceived as a way to shape and define a new type of manufacturing and to give a future to what could be a Third Industrial Divide (cf. Piore and Sabel (1984) on the Second Industrial Divide in the industrial district’s milieu). As explained above (see INS8 on new stakeholders and jobs creation) the creation of a cluster of
innovation also triggers new job opportunities coming from the necessity of new actors administrating the arising necessities (i.e. new formal and informal institutions). If we look at the history of policy for the Italian industrial districts and their evolution, similarities can be found in the establishment of cooperatives, category associations, unions and district association helping the safeguarding common rights and quests of workers. The next section will analyse in more detail the emergence of new intermediaries and informal institutions in the current days.

6.3 **New intermediaries in economic geography: informal institutions, lack of tailored governance and a network of untraded interdependencies.**

6.3.1 The social construction of the contemporary ecosystems of innovative entrepreneurs in Rome.

The emergence of new types of activities and professional figures with institutional support granted to them has also seen the appearance of a system of new actors helping the communication and the engine of the “ecosystem”. However, it is yet informality shaping the directions of knowledge *spillovers* and the solid network of connections both between the main actors working in the system. These new intermediaries and informal institutions have mostly appeared as a reaction to a lack of tailored local governance combined with the fragmentation of the city of Rome (see section 6.2.1). The understanding of the Roman network is useful to tackle similar set of actors and linkages that can be found in other world cities. Counter evidence of this statement is offered
by the increasing number of empirical studies, settled in other cities, starting to tackle the different actors and dynamics of local economic development and entrepreneurialism (e.g. Capdevila, 2014; Schmidt and Brinks, 2017; Van Holm, 2017; Wolf-Powers et al., 2017). This section is based on the analysis of material coming from the 35 interviews led among the main actors of the Roman innovation scene. A snow-ball sampling method has led to a social network analysis of the entrepreneurial network, fulfilling the initial goal of discovering through a detective approach the identity of those new intermediaries and the others actors involved, to be able to describe their role, and the way they are inter-connected (cf. Storper et al. 2015, chap. 6).

The structure of the ecosystem of innovative entrepreneurs found in Rome is visualized in the socio-gram represented in figure 6.1. Here all the emerged actors have been plotted until reaching the saturation of the sample. Overall, it represents a small and very close circle of professionals where personal contacts still matters a lot to enter the network. However, some new professional figures have appeared working as enablers for the assemblage and right functioning of the ecosystem. The professionals involved (grey nodes) mostly correspond to those identified in chapter 4 of this thesis: innovative start-ups, makers, SMEs and freelances. CWSs, which were equally identified in chapter 4 as a key actor of the ecosystem, appear instead in a different level of the ladder. They sit at an equal level with line agencies of the region or of the city, or even techno-poles and the traditional trade associations (green nodes).
The first and very interesting thing to notice is the emergence of a series on unconventional intermediaries of innovation besides the most traditional ones such as techno-poles or the various line agencies of the region (green nodes). In particular, CWSs of different typologies – both type 1 and 2 as defined in section 5.3 – together with international events such as Maker Faire, perform a central role in this ecosystem of innovation. In the diagram in figure 6.1 they are the nodes sharing the biggest number of connections in the cloud. They are new actors of local economic development mediating between professionals and funding opportunities’ inflows (the blue dots). They act as gatekeepers of information and knowledge (cf. den Hertog, 2000; Howells, 2006; Phelps, 2017). The previous section has already explored the educational services offered by those type of premises, here I want to explore more in-depth the other tasks they perform in the wider ecosystem of innovation of the city of Rome.

Both types of CWSs (1 and 2) can be established in partnership with public line agencies either at the regional level (e.g. Lazio Innova or BIC Lazio, which are dedicated to innovation and the stimulation of economic growth) or at the local scale (e.g. Fondazione Mondo Digitale, owned in share-hold by the city of Rome it contributes to the capillary diffusion of knowledge and trainings). Most of the other CWSs are run privately with various different administrative structures but still delivering services to the public sector. In other words, both public and private facilities contribute to build the awaited “ecosystem of innovation”. The third typology, CWS3 more commercial, occupies instead a very - and unsurprisingly - marginal role in the network cloud. However, the
commercialization of CWSs in Rome testifies the increasing demand for flexible office spaces, the connection between real estate market and the new economy and the potential attraction of multinational investors if the agglomeration would be even further supported.

As it was highlighted in section 5.3.1 and 5.3.2, the biggest difference among the first two typologies occurs in terms of sought objectives in relation to the surrounding context. This statement is confirmed by noticing the type of linkages with the different actors in the network as displayed in figure 6.1. CWS1 are mostly connected to local authorities and other actors like trade associations, building the social and cognitive foundations of the agglomeration. While CWS2 share linkages to investors, start-ups and business authorities, curating instead the financial and economic foundations of the ecosystem.
Figure 6.1 - The diagram developed through UCINET, shows the cloud of connections between the different actors of the roman ecosystem of innovation. The links between the different stakeholders here are represented as emerged from the snowball sampling and the answers to final question led to each interviewee investigating their connections and networks. The blue dots represent the funding inflows, the grey nodes are the professionals, the red one is the regional institution, the yellow are the local administrative and business institutions, while the green actors are the new intermediaries and actors emerged at the local scale.
None of those spaces is yet acknowledged by the planning system, allowing a variety of different structures and regulations that influences also the stakeholders with whom they activate knowledge or economic spillovers\textsuperscript{19}. Rome displays a considerable number of abandoned and derelict public premises, not currently generating profit as they stand. Local authorities from the hubs described in section 5.3 have foreseen an opportunity of development in such patrimony, and they are starting to give them away in exchange of social services like those carried out by CWSs. However, due to the lack of tailored governance tools – both for the establishment of those spaces and for their assignment - the mechanism still works under capacity. The assignment is still predominantly relying on "untraded interdependencies and relations of trust", which also used to dominates the dynamics of industrial districts from the Third Italy (Storper, 1995). Here is an overview of the different contributions to local economic development from those new intermediaries according to the political and sociological ideas.

A strong ideology and a belief in the spread of self-production and bottom-up innovation through cooperation and collaboration are evident in CWS1. In particular, they show linkages with the Maker Movement, imbued with some specific political ideologies. Those spaces mostly have the role of promoting the wished democratization of technologies and skills by sharing tools and knowledge. In some cases, while interviewing the managers and discovering

\textsuperscript{19} Some are privately rented or owned and run by a common enterprise, some are run by cooperatives and they occupies public spaces granted by the local authorities or some state-led company, some others are completely public, in the particular case of L’Alveare the peculiarity of the facility is the endowment with a kindergarten. See section 5.3.1
the criteria by which they selected the users, the impression is that fab-labs have often replaced the former “centri sociali” (or social centres) - far-left community centres active during the end of the 1980s and the 1990s and very much embedded in the local context, where they fought for social innovation. Some of the contemporary examples of fab-labs started as associations with similar purposes, and only later switched to become an SSA. Examples are ‘Roma Makers’ in Garbatella, ‘FusoLab’ in Alessandrino, ‘Fonderie Digitali’ in via del Mandrione or even the Roman edition of ‘Impact Hub’ in San Lorenzo.

In all the mentioned cases, their political ideology has influenced their settlement in a specific neighbourhood and had an impact in the development of the ecosystem (cf. chapter 5).

These spaces support the type of democratization of technology promoted by some evolutionary theories on capitalism and the new industrial revolution (i.e. Mason 2015; Anderson 2012). They believe that the “industry 4.0” (the Italian Ministry of Economic Development - MiSE - has even crafted and released in 2017 a dedicated national framework ‘Piano Nazionale per l’Industria 4.0’) needs some local gathering places, accessible to all, for prototyping making and manufacturing. Within the Roman network, CWSs are overwhelmingly conceived as the designated gatekeepers of an affordable access to technology and entrepreneurship for all.

However, the lack of tailored governance harms CWSs’ resilience, linking it to the temporary political trends. On the contrary, the establishment of a system of private-public partnerships or loans could enhance the multiplier effects at
the local scale. A profitable scenario would be created for both the management company and the local authorities granting the spaces. Then additional benefits would be generated for the professionals using the spaces and more in general for the regeneration of the surrounding area.

A slightly different scenario catches the eyes while visiting spaces of the second typology, CWS2, whose role is enabling and enhancing connections with investors, venture capitals and clients in the entrepreneurial ecosystem. Normally they are connected to start-up accelerators, or even set up in sharehold with some major state-led companies (e.g. Poste Italiane, Tim, Grandi Stazioni). An additional component is linked to the attraction of multinationals (MNEs), either as investors or clients, pitching for patents or ideas from the smaller innovators. For the same reasons, MNEs also are involved as sponsors in some of the major dedicated events such as Maker Faire. The atmosphere of cooperation in this second type of spaces is less imbued with social claims, but more oriented to trigger economic externalities and spillovers. Even the connections with universities are stronger. In a context where the placement on the job market becomes more and more complicated, even after obtaining a degree, those structures provide the missing step on the ladder towards self-employment, as well as the necessary connections to obtain the initial funding to set up an activity.

The intermediary role of CWSs is also an effect of the globalized boundaries of trade that have imposed significant changes to the location of clients and suppliers (cf. data from the pilot study on makers analysed in chapter 4). The
accent on the globalization of productions that has alienated the smaller enterprises is evident from the words of several professionals electing self-production and the enhancement of quality as a speculated solution. Professionals have defined the scope of CWSs as "glocal" (Swyngedouw and Kaïka, 2003 cf. ): bridging on one side the local dimension of their labour pool and institutional support, and on the other the global extension of their networks of knowledge and the targeted market (M1; M3). Formulating a wider consideration, SSA3 has reported:

"It might be a new Capitalism, [...] [people in] co-working spaces and fab-labs have restarted being producers; the marginal cost of things decreases and we could be both producers and consumers. It can be a revolution but we need to see how it evolves on bigger numbers. Fab-labs and co-working spaces have started to be legitimized but they remain an avant-garde. [...] Co-working spaces are often misinterpreted as a place only for renting desks. [...] It is still a challenge, now they need to be institutionalized to become a real alternative. Traditional jobs have even less perspectives".

Similarly, M2 has observed:

“All of these [technologies] will make us always more dependents but also always connected. Therefore, having at hand centres like fab-labs with people inside that are able to control those technologies but also this complexity, will make the relationship between technology companies and consumers less fideistic".
To sum up, CWSs have a role especially in the diffusion of the new technologies accommodating the changes occurred in the globalized world of small manufacturing and the surrounding labour market.

Finally, a number of foundations and NGOs have also emerged, helping the networking of professionals and therefore the match of “local buzz” and “global pipelines of knowledge” (Bathelt et al., 2004). E1 has declared that the major role of his NGOs is to “mediate”, which means to enable a dialogue between politics and innovative businesses:

“Our mission is to engage the most number of actors possible in a network where they can share experiences, and they can be contaminated with venture capitalists. [...] We are a no profit association that seeks to develop a territorial cluster. Thus, to connect stakeholders from the venture business to those who might be potentially involved in it but do not know it yet. Before anything else, we do networking, to allow the development of the ecosystem, then we build a lobby and a legacy, we talk to the government, the region, the municipality and the European Commission. We make sure that the tools available on a national scale could create room for the rise of start-ups and new enterprises with high potential. [...] This means pretty much to establish a dialogue with politics and to convince them to bet on a sector, which is still very very small but has very high potential. It was hard to obtain but today at least the local politics, the municipality and the region, trust this industry and they have realized that something is developing to stay. It is not a
trend, as it seemed at the beginning. With so much economic depression around, this is instead a very live compartment, with a lot of vitality and the chances of creating a lot of value.”

Those no profit organizations and foundations work for the creation of a real and durable cluster around those innovative activities. To do so, most of the job they need to do is to mediate between politics and available opportunities in terms of funding. Once again, the agglomeration effect is what the creative Romans are chasing, and a whole set of new actors are emerging to let this happen.

Especially in a lagging context like Rome, actors like CWSs make the set-up of an individual activity affordable (cf. Ferm 2014 and Chapter 5 of this thesis). As confirmed by the presence of the other intermediaries, the most important benefit that users and professionals get from these contacts is becoming part of a network. All those innovative small firms operate within an international system of relations either on online forums or as part of a network of similar firms and accommodations. For example, fab-labs are all connected in a network administrated by MIT in Boston; there are several online networks of Italian CWSs like ‘Rete COWO’ or ‘CoRete’; some international franchising of SSAs like ‘Impact Hub’ include the sharing of their portfolio of contacts as part of the offer of services. However, the most crucial connections for their survival still take place face-to-face at the regional and local scale. The set of informal institutions like CWSs and the other green nodes in figure 6.1 helps the dissemination of information on the latest technologies but also the access to dedicated opportunities and funding. Those are spaces enabling knowledge
spillovers, but also fighting social and economic alienation (cf. Capdevila, 2015; Spinuzzi, 2012).

Face-to-face contacts - just like participating in fairs or the settlement in an urban location - are important especially in the initial phase of trial and prototyping as they require a closer relation to other professionals and the clients. After a couple of years, exactly as emerged from the pilot survey led among makers (section 4.2.3), start-ups might either fail or thrive and start complying to traditional market and economic dynamics and eventually relocate somewhere else. A policy framework tackling this initial trial stage is missing to make sure that economic growth could be generated at the local scale. To do so, a double-sided action is needed, both on the planning and economic field. Given the urban settlement of the new entrepreneurial ecosystems a number of new variables normally relating to the built environment are interfering and intertwining with the traditional agglomeration forces (i.e. real estate and housing market prices, local social tension, efficiency of the local authorities, etc).

6.3.2 The financing system of innovation

The role of the newly defined intermediaries is often linked to the incoming flows of finance. The socio-gram in figure 6.1 shows that funding - in blue - never flows directly into the pockets of firms. Most of the times, the role of the enabling actors - identified by the green dots – is exactly that of helping either to trace or to convey the financial flows. The major system of microfinance working on a national base is the “Fondo di Garanzia” set up by the Italian
“Mediocredito Centrale” (see section 4.2.2). It foresees an initial grant of capital for new activities following its assessment by some designated practices of experts (see figure 6.2). In addition to that, start-ups might be funded by venture capitalists, including those sustained by private or public acceleration programs. The structure of the system itself implies the presence of other actors between finance and entrepreneurs.

The emergence of these intermediaries can be identified as a natural consequence of the fragmentation of the institutional and infrastructural context, requiring help from outside to overcome those complexities. Both the necessity of micro-finance to start an activity and the increasing complexity of the institutional and bureaucratic machine are just another symptom of an underlying lagging economic context. SSA7 pointed out that the start-up world, especially in Italy, is based since the beginning on a system that “implies helping them to contract debts [with the government] […] more than in other European country”. This adds up to a general confusion in the designated tasks for each actor, which are not defined from above nor connected very often overlapping each other or not cooperating. This big management machine of the available EU funds and its lack of organization create a remarkable dispersal of funding and slow down the pace of innovation (F1).

Figure 6.2 – The diagram illustrate the flow of funding from the EU until the final beneficiaries. Regions have the powers to both shape the system of allocation and design the bureaucratic way to deal with it.
This system of micro-loans is quite similar to and somehow derived by the set of no-security loans that was set up at the time of the Third Italy. Before districts were acknowledged by any formal law, the support to the “informal” settlement of factories and warehouses in the North East and Central Italy was granted through no-security loans granted at the regional level [see section 2.2.2 cf. (Brusco and Pezzini, 1990; Piore and Sabel, 1984)]. The difference with nowadays stands in the role of banks and the initial origin of funding, as displayed in the line diagram in figure 6.2. In the Third Italy, both national banks and the government had a more central decisional role in the economic policies of the country, while the system of micro loans was more of a regional peculiarity, mediated by certain local actors such as trade associations. In the investigated case of the Fourth Italy, the relation is inverted.

The origin of funding and policy frameworks is settled on a wider international scale, coming from the EU, with banks becoming one of the intermediaries between the regional authorities - shaping the conditions for the allocation of finance - and the professionals receiving them. The role of trade associations has been replaced in some cases by that of start-ups incubators and accelerators. However, the structure and the presence of a system of informal mediators stands as a continuity with the previous geographical model.

Even the role of techno-poles has changed, joining the team of intermediaries incubating start-ups or directing the flows of dedicated funding (see figure 6.1). Most of them, including the Tecnopolo Tiburtino of Rome, were set up in the
early 2000s on the wake of the success registered by the industrial district model, as a way to create an industrial dedication in places where it was missing. Techno-poles spread in the era of zoning trends and CBDs development in planning, when high technology was elected as the key to foster regional development (Hall and Castells, 1994). Following the Silicon Valley model, similar experiments have raised in areas at the outskirt of many major cities, wishing the industrialization of such territories through the traditional economies of scale coming from spatial agglomeration.

Shortly after the general downturn triggered after 2008, it was clear that they could not have the same positive effects in all parts of the world, being for governments an expensive infrastructure to maintain (Miao et al., 2015). Empirical research on the case of Rome has confirmed that we are switching from techno-poles development to a ‘start-up urbanism’, as some literature has started positing (Rossi and Di Bella, 2017). However, the existing studies still only marginally address the implications behind this failure of the location, and the current re-use of techno-poles.

In Rome, the Tecnopolo Tiburtino nowadays hosts, for instance, more than 100 enterprises, among which 27 are certified as “innovative start-ups” (belonging to the dedicated register of the Chamber of Commerce). According to INS7, the number has widely increased following the latest financial measures and the tax breaks established for the activities enrolled on the special registry. Moreover, the set-up of an institutional incubator with annex co-working space has been a strategic decision to try and regenerate the area,
given the low capability of attraction of the location: feeling a little bit like ‘a cathedral in the desert’ (INS1). Young professionals have thus started to find the area interesting also for its lower real estate prices and for the facilities offered. However, the necessity of SMEs here settled are slightly different from those more urban based. Most of these enterprises do not need to have frequent relations with other key actors of the Roman scene nor with the public administration, so they can avoid the nuisances coming from re-creating a spatial proximity with them. Given the few amenities of the area where the techno-pole is, it is more likely to attract digital start-ups or activities that need bigger logistical spaces, such as those experimenting on green and renewable energies and solar panels or profiting from the proximity with motorway interchanges (INS1).

The evolution of techno-poles shows that we are facing a different type of clustering process. The case of the Roman techno-pole provides a good example on how institutions could use those innovative enterprises and facilities like CWSs to regenerate places risen with a more traditional industrial dedication but struggling to be maintained and heavily weighting on public expenditures. At the same time, this renewal of techno-poles - and their increasing assimilation to incubators of very small businesses - confirms the neo-liberalization of the contemporary job market, and the necessity of an update of the traditional norms from agglomeration theory, relating to innovation and SMEs.
As in traditional industrial districts, those new activities profit from agglomeration effects and proximity. However, the differences in the typology of activities found between techno-poles and inner urban areas show that the connection between the new (urban) economy and the location is tighter than in the district model. In the current days, the value of an attractive settlement is higher. Those activities do not establish themselves on new areas created from scratch, but they instead integrate themselves on existing pre-established and pre-constituted urban fabrics.

This is a very important observation, and a big difference both with respect to the traditional district milieu and the techno-poles settlements. The relation between firm and location is mutual: Firms benefit from an urban location and its gravitational pull for young talented professionals, but the surrounding context have some deep consequences on the way the cluster is shaped. Praising the embeddedness of those activities is crucial for the understanding of the way the ecosystem works; SSA7 has reported about the agglomeration of innovative firms:

“This is how Rome has shaped its own version of innovation. There is a very clear trend referring to the Silicon Valley that everyone is chasing, but the Silicon Valley cannot be reproduced everywhere in the same way. Each country does it with its own peculiarities with more or less help from the government. We are nowadays in a period in which the State is helping lots of professionals in the innovation field”.

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The respondent – from a shared service accommodation co-funded by a state-led company and hosting some incubation programs for start-ups – was hinting here at a lagging context that, if juxtaposed to some powerful cultural embeddedness, could generate a great innovative potential like for the Roman context.

The reference for the contemporary urban entrepreneurial ecosystems of innovation cannot be Silicon Valley nor “industrial clusters” anymore. This type of innovation scenario lacks of the local dimension, which is instead key to encourage and implement the investigated case of small-scale innovation. Talking about local ecosystems of innovations appears therefore as the most accurate terminology to address the current agglomerations as it takes into account the variety of their geographical linkages (global + local), the cross-sectorial nature of their activities and the importance of their urban location and of the untraded systems of interrelations that shapes their contextual ties.

The situation highlights an increasing divide between the creation of innovation at the global scale (following the Silicon Valley model) and that at the local scale of urban start-ups (following the Fourth Italy model).

Another signal that the cluster is not yet consciously structured is that foreign investments are still quite limited, if not almost inexistent. Major multinationals of innovations such as Google and its Campus division - created to scout talents and grab start-ups innovations - have not reached Italy yet: Google currently only have premises in Milan (cf. figure 6.1; multinationals play a very marginal role in the cloud of connections shown in the diagram). Institutions
try to attract those major corporations in the occasion of major events dedicated to innovation, such as the Maker Faire of Rome, to recreate temporary clusters effects by their participation. Similarly, multinational brands of commercial co-working spaces for profit such as WeWork or Second Home do not have any Italian branches yet.

The Fourth Italy corresponds to an even more variegated set of stakeholders and an even accentuated localism in economic development and innovation issues. Globalization of markets has surely imposed some changes in the traditional district milieu and in the manufacturing supply chain. At the beginning of the new century, it seemed to be an unassailable evidence for the value of global production networks and the internationalization of firms, with global technological innovation being the discriminant for economic growth. While nowadays, we are observing and increasing gap between very big multinationals and very small innovative enterprises. The formers produce innovation at the very local scale and are considerably bounded with the local context and institutional framework. However, differently from the first global model, they have a higher local absorptive capacity and the potential to positively engage with the surrounding built environment. They could potentially generate a higher social and economic value in the regeneration of the surrounding regions with the possibility of branching with the other local economic sector while generating new jobs and local income.
6.3.3 The need for new planning governance and local development measures

At odds with the case of the Third Italy, the activities participating in the contemporary ecosystems of innovation are establishing themselves on existing urban fabrics. Therefore, the approach, to elect the Fourth Italy from myth to reality should necessarily be different in terms of planning and strategies. The current planning document, which is effective in Rome – *Piano Regolatore Generale di Roma* – was lastly updated in 2008 from an instrument that goes back to the 1960s and that still targets and regulates the expansion of the city and the new areas of urbanization, rather than its sustainable management. A similar planning system rules most of the Italian cities, being an old fashioned and obsolete system still oriented towards place-making, while many urban areas would rather need a place-managing and an urban regeneration strategy.

INS6 and INS13, among the institutional representative part of the set of interviews, have confirmed the general feeling for planning renewal. Given the institutional and physical fragmentation of the city, the deficiency of the mayoral authority and the peculiarity of each neighbourhood, both interviewees recommended the possibility to grant more freedom to local councils. The reform would allow to deal more quickly with matters of social innovation or the allocation and provision of additional amenities such as CWSs. However, the inclusion of the new intermediaries in the local offer of amenities and a better administration of these shared working facilities are only a small part of the general renovation that is needed.
In this context, CWSs aim to become a local facility in the offer of all municipalities just like theatres, cinemas, libraries and churches (SSA3). The capillary presence of those structures on the territorial board of the metropolitan region is positively seen also for the regeneration of the lagging neighbourhoods in which those activities arise. INS6, from one of the local council of Rome largely interested by the presence of those new spaces and activities, has pointed out that:

“[CWSs] have a social action in difficult and complex neighbourhoods. Many times this is underestimate but they play a role also in terms of prevention, of costs that the administration won’t be charged of later on, as they also soften social tensions”.

The statement opens the path to a wider discussion on the role of the planning system, and the way it should react to these changes occurring in the city. Formal policies do not yet recognize the actors and the stakeholders reviewed in this section, nor the emergence of new working spaces and intermediaries, failing to consider their implications for the built environment and matters of local economic development.

The concept of “glocalization” that has emerged while discussing the key role of CWSs also justifies the key role of fairs, and of the other temporary clusters, in cementing the entrepreneurial network of innovation. This is again another consequence of the socio-political crisis of the city itself. In a fragmented and very wide city like Rome, the presence of those intermediaries represents a
way to create a solid network around some new economic opportunities, which is crucial especially as the city do not have any tradition in the sector. However, the lagging context is also shaped by some more general cultural embeddedness of the Italian economic system. Building connections and gaining support in a context where social capital still regulates all the economic transaction (cf. Granovetter 1985; Amin & Robbins 1990; Becattini 1990) is the key to establish a new set of activities. The new intermediaries address the spatial fragmentation of the city, and help overcoming the spatial and logistical barriers towards the international and global scene. However, the lack of a central planning and a clear regional vision in this fragmented ecosystem also stimulate the presence of a variety of stakeholders with no settled division of tasks that complicates the picture and disperse resources even further.

If we look back to the Third Italy, we will find some commonalities between the current attempt to set up an ‘ecosystem of innovation’ and that of the industrial districts’ context. When the districts started to be acknowledged by the policy framework - the law 317 from 1991²⁰ - a whole set of intermediaries and new informal institutions were created with a lot of decisional power devolved to the

²⁰ See section 2.2.2. The law 317/1991 identified innovation in the manufacturing industrial districts and addressed ways to increase the competitiveness of the firms involved. It was one of the first system based policy in the European scenario, meaning that interventions were not directed to single firms but to a system of local firms. The major goal of that policy framework was the creation of local-specific public goods in a time where industrial strategies were implemented by the central government. This law was meant to combine and coordinate bottom-up actions at the local level with regional strategies. For the first time, regional authorities received some specific intermediaries’ responsibilities. The outcome was the creation of a whole set of new soft infrastructures and intermediary institutions such as logistic platforms, business development centres, training organizations, cooperatives and consortium of firms, business intermediaries and trade associations. At some point though, the Italian government was not able anymore to provide enough funding to implement all those actions. The following cuts led a first step forward in the process of decadence of the district model until the general downturn impressed the finishing blow.
regional planning. This very often led to the implementation of techno-poles and science parks as a way to regenerate certain isolated areas of under-industrialized regions like Lazio. A great amount of capital was employed in this established bureaucratic machine and the related infrastructures, causing at some point the decline of the industrial district model itself. A comparison can be made with the contemporary strategy within metropolitan areas, where the innovative potential has been identified in the new urban economy.

A recent document published by the Ministry of Economic Development (Piano Nazionale per l’Industria 4.0, MiSE, October 2016) setting up the measures to trigger economic growth at a regional basis has identified this potential in the so called “industry 4.0” settled in the major Italian urban centres, defining the guidelines for funds and finance to support the related ecosystem. However, despite those first attempts of tailored policies that are now starting to appear, the most part of the institutional support and microfinance opportunities are still ruled informally at the local scale. Finally, if part of the formal acknowledgement of the Third Italy consisted in granting regions more decisional power to accommodate the new economic dimension (law 317/1991; see section 2.2.2), nowadays the growing pressure on local authorities from the Fourth Italy represents another signal of the increasing localization of the economy.

6.4 Conclusions

In this chapter, I have explored the role played by institutions in the development of the Fourth Italy and in the creation of an entrepreneurial
ecosystem of innovation in the city of Rome. The emergence of new stakeholders is a consequence of both changes occurred at the global scale in the market and labour production, but also of a wider crisis context that at the European level has brought attention on new entrepreneurial forms as a way to trigger economic growth. In the Third Italy, banks were able to grant unlimited financings to enterprises with a sometimes subjective system of valuation, very often influenced by social capital or local politics’ trends (Bagnasco, 1977; Barca, 1997; Brusco and Pezzini, 1990). In the Fourth Italy, in contrast, most of the available funding comes from the EU, and its distribution depends from the EU’s system of allocation and application.

Formal institutions, mainly at the regional scale, are in charge of delivering a plan of action first to obtain and then to spend EU money - and therefore distribute them to the enterprises in the various available forms established both at the national and at the supranational level. However, these flows of funding are never directly oriented from the banishing region to the users. The path is much more complicated, following a set of experts and intermediary institutions. A lot of those funding are spent at the public expenses, in R&D, for the engine of this big bureaucratic machine and ultimately for educational purposes. The interviews have revealed that many efforts are made to achieve a better linkage between universities and the entrepreneurial world, with a lot of courses and new amenities offered for the development of new activities. The educational attitude of institutions is not always celebrated as a positive measure by professionals. The organization of dedicated events is positively welcome as an occasion to build “global pipelines of knowledge” and
spillovers, while the other educational measures are often seen as competition subtracting jobs to people, or even as an artificial dispersal of capitals.

A new set of informal institutions, deeply influencing the contemporary dynamics of local economic development, have arisen. A number of new professional profiles have emerged, such as incubators', accelerators' and fab-lab's mentors and managers. The consequences of this self-regulating set of informal institutions are twofold: On the one side, they help the construction of a community and the flow of information in the criticized institutional and infrastructural fragmentation of the city. On the other side, professionals have lamented the slowness of funding allocations and of bureaucratic procedures.

Nowadays the division of tasks and the role of every stakeholder in the ecosystem are informal and left to individual’s choice; likewise, it is their formal structure that could be either public or private. The engine of the complicated set of public agencies and institutions contributes to slow down the process of innovation. So that people find it easier recurring to private funding or even bottom-up solutions like crowd-funding. Similar dynamics led to the emergence of new informal institutional roles. In the era of the Industry 4.0, this set of new informal institutions like CWSs help overcoming the fragmentation of the city and its deriving social tensions. However, at this point the craft of a dedicated system of governance accommodating the needs of this raising ecosystem is needed.
As highlighted several times in this thesis, the activities acknowledged as part of the Fourth Italy are settling on pre-existing urban fabric. Thus, the norms supporting their economic growth should be designed in a joint effort between planning practices and local economic development measures. The new actors of urban development, such as CWSs, should therefore be elected as part of the local offer of amenities of neighbourhoods. By this process, the multiplier effects that they can generate for local economic development will be spread triggering the regeneration of the relating areas of the city of Rome.
7 Conclusions. The Fourth Italy: myth or reality?

7.1 Introduction

This thesis points to the emergence of what could be termed a Fourth Italy. This new geographical and socio-economic model stands as a natural expansion to the well-known theorization on the Three Italies proposed by Bagnasco (1977). The study of such new type of agglomerations leads to the necessity of developing new governance tools to maximize their multiplier effects and implies important challenges both at the economic and planning level. This chapter summarizes and discusses the key findings and the implications of this research.

As highlighted in chapter 1, the research was motivated by the desire to understand the contemporary dynamics of agglomeration in a post-recession scenario and assumed the decline of the Marshallian industrial district model. The Fourth Italy has emerged as an urban phenomenon shaped by a variegated ecosystem of stakeholders connected among each other by a system of untraded relations and deeply embedded in the local context. The structure of the ecosystem can be summarized as consisting in a group of entrepreneurs - freelancers in the creative sector, makers, start-uppers – connected by a system of emerging intermediaries – co-working spaces of different typologies and temporary clusters such as international events – to the formal institutions and the financing opportunities. Section 7.2 outlines the answers given to the set research questions.
Under the theoretical point of view, defining a new geographical model of agglomeration meant bridging traditional concepts from agglomeration theory with others leading back to the cognitive-cultural capitalism (Scott, 2007). Creative clusters have been an effective label produced by policy makers to use and reproduce agglomerations for urban regeneration purposes in the post-industrial era (Martin and Sunley, 2003; Porter, 2000). However, the related literature is seen as a temporary trend. Standing alone, cluster theory is still a too vague and incomplete concept to contribute to an expansion of the theory of agglomeration. Conversely - as illustrated in chapter 2 – engaging in a discussion on the cognitive dimension of capitalism, represents a more comprehensive and reasonable choice to address the most recent aspects of the debate: ‘additive manufacturing’ (or industry 4.0) and makers, innovative start-ups and the digital industry. The main challenge of this thesis has been to identify suitable concepts coming from both bodies of literature and explain the contemporary phenomenon of entrepreneurial clustering and innovation creation at the small scale of SMEs. The new conceptual framework, resulting from breeding these two bodies of literature, is discussed in section 7.3.

The new urban geography of the contemporary entrepreneurial agglomerations discloses important implications for policies. In terms of planning governance, the research has highlighted a continuity from the time of the Third Italy. This reveals the necessity of designing and delivering new adequate tools. A similar set of considerations applies to the financing system that still relies on the local allocation of no-security loans to support new activities, as it used to be at the time of the Third Italy. Again, this continuity
points out a pitfall in the current policy framework for economic growth and regional development. For instance, the new preferential workplaces, CWSs and the other SSAs present a broad range of implications for planning, real estate and institutional matters. New governance tools for the Fourth Italy should therefore assume a joint perspective associating dynamics typical of agglomeration theory (e.g. relevance of proximity for spillovers effects, economies of scale, institutional and social capital support) with those urbanization and regeneration variables that have distinguished measures targeting cultural industries and creative clusters. Section 7.4 draws guidelines and suggestions for policies in both planning and economic development fields.

The Fourth Italy is intended as a socio-economic model settled at a very different historical time and on very different urbanization conditions than the Third Italy. First, the advanced communication technologies and the globalization of labour markets have imposed changes in the global/local dynamics of manufacturing (Iammarino and Cantwell, 2003). Then, the new agglomerations are generated on an existing urban fabric, which changes their relations with and impact on the built environment. Rather than their urbanization effects, as in the case of the rural settlement of the Third Italy, these geographical concentrations of firms hold now a regenerative potential. As such, a new and different system of policy tools, aware of the discovered new global/local equilibrium, should be designed. In this perspective, the Fourth Italy opens up new research horizons in various fields, which are summarized in section 7.5.
Just like at the time of the theorization of the Third Italy, this new geographical model still escapes the governmental incentives or policies as well as the related data collection. The new research horizons to renew the Italian planning system according to the new trends are broad. It can be argued that the Fourth Italy has originated as a reaction to crisis where self-employment was encouraged to generate new jobs and restart a stagnating economy. This leaves a number of questions open on the future of labour pooling, the delineating entrepreneurial figure, and the future of welfare and social securities. There is yet no work on the repercussions that the start-up economy has on the national GDP nor any assessment of the economic performance of those young and small enterprises over the long-term. Another important field to investigate is therefore represented by the quantification of the economic impact of such firms and agglomerations. The current research has investigated and described its impact in Rome however, similar concentrations of very small innovative businesses can be observed in most of the main urban centres of Italy. This opens the path to further comparative studies for the definition of contextual variables following a more quantitative cluster analysis approach.

7.2 From the Third Italy to the Fourth Italy: the description of a new socio-economic model.

The transition from the Third Italy model to a new form of agglomeration identified with the Fourth Italy model was investigated through a case study
design following a mixed method approach. At the time I started this research in 2015, the lack of data, relevant literature and information available on the subject of the new urban ecosystems of innovative enterprises considerably influenced the choice of the methodology and the data collection phase. At that time, in Italy and in the rest of Europe, co-working spaces were a brand-new phenomenon and only addressed by few sociological studies. The Makers Movement and their annual gathering, the Maker Faire, had just become a worldwide brand moving from a DIY culture to a more entrepreneurial orientation. Finally, the registry of innovative start-ups was created in 2012 with the first list published at the end of 2013. In the professional field, trade associations\textsuperscript{21} were starting to organize round tables and workshops on digital fabrication techniques, the new industry 4.0 and the implications for innovation. However, in the academic environment this debate was still at its very early stages.

This framework has deeply influenced the qualitative and exploratory approach of this research. First, I had to identify and verify the actors participating in this urban concentration of innovation and the features of those firms. A pilot survey to the Maker Faire 2015 was used as a window of observation to proceed to the next steps of the investigation. The former consisted in 35 semi-structured interviews with key representatives of the ecosystems defined through a snowball sampling method, a mapping of the available data and some additional desk review of secondary data. Through this methodology I

\textsuperscript{21} For example the CNA of Rome, which was also partner sponsor of this research and a very useful link, especially in the first stages of this data collection.
have answered my main research question (*How and why has a Fourth Italy emerged?*) that seeks to test the emergence and describe the features of a new socio-economic model for agglomeration: the Fourth Italy. This main research question was broken down into three main streams of investigation, respectively actors, geography and the role of institutions.

The answers to the above questions correspond to the narrative of my three empirical chapters as summarized in the following sub-sections. Reasons for the emergence of this new model of agglomeration are twofold. On one side, it has originated as a reaction to the globalization of markets and communication technologies. On the other side, those entrepreneurial ecosystems are the effect of a dangerous neo-liberalization of the job market.

7.2.1 **An ecosystem of entrepreneurs and a new conception of innovation**

*SQ1: Who are the professionals active in this sector and which are the main features of those activities? Which idea of innovation do they lead forward?*

Chapter 4 introduced the concepts and actors intervening in the narrative of the Fourth Italy. The investigation proved makers, creative freelancers, co-working spaces’ providers and start-uppers as the key professionals operating in the ecosystem of innovation in Rome. While the definition of the sector and of the type of activities they lead might seem blurred, they are unified by the idea of innovation they lead forward. The cross-sectorial range of activities represented in this set conforms to the definition of cognitive-cultural capitalism.
by Allen J. Scott, and it identifies their innovative features mixing design and cultural activities with ICT, robotics, soft technologies and even traditional manufacturing and services.

We are dealing with very small and young firms - even smaller than the average SMEs’ size from the Third Italy – counting up to ten employees on average. Collaborations are preferentially set up on a freelance and project-oriented base to save on additional labour costs. These firms might often emerge as a spin-off of other established companies, proposing an innovative product or service. They might be contracted by the public sector to carry out educational work and trainings directed to the new entrepreneurs-to-be. Their cross-sectorial knowledge and the vertical integration of different skills are the signature of the new conception of innovation that they lead forward. They propose incremental innovations, in other words they fill existing gaps in the market. Most of the time this operation involves assembling solutions or technologies coming from different fields or applying new technologies to old craft products to obtain new and highly customized products or services. ‘Contamination’ and ‘creativity’ are key words in these processes. Makers for instance produce “addictive manufacturing”, which means that even their relation to clients and suppliers are very different than in the traditional industrial districts from the Third Italy.

This is a context dependent innovation economy. Despite the global pipelines of knowledge in which these professionals are operating (to accommodate the faster pace of technology), the local support and the embeddedness in their
surrounding context becomes a crucial variable for their survival. This local attachment is a direct consequence of their low initial capitals, and the bottom-up character of most of the initiatives in which they participate. Therefore, even shared workspaces become an important actor of the agglomeration, either to enhance social proximity and the linkages with the institutional framework, or to access funding opportunities. Temporary clusters, such as trade fairs and international events (e.g. Maker Faire) also cover a similar role. They accelerate knowledge spillovers and prototypes’ testing, while bridging local and global knowledge flows in a restrained period of time. For the above reasons, other than a geography of innovation the Fourth Italy is also a geography of crisis, assuming relevance especially in lagging socio-economic contexts such as Rome.

Conceptually, the new ‘industry 4.0’, entails a debate on the evolution of capitalism and the entrepreneurial role of the state in stimulating processes of innovation. Following a discourse analysis on the recurring terminology used to address the new type of agglomeration, I started addressing them as "ecosystems of innovative enterprises". Such ecosystems emerged as a reaction to a dysfunctional economic system where the measures in place to target unemployment rates and regional development are mainly and almost exclusively based on micro-finance and no-security loans for start-ups and entrepreneurs. This situation discloses the neo-liberalization of the job market, with institutions granting support to the creation of start-ups and new entrepreneurs to be showcased within the partnered events as a solution to slow economic growth.
7.2.2 Urban renaissance and key working spaces

SQ2: What is the geography of this emergent urban economy? Why do cognitive-cultural activities choose such urban locations?

The investigated entrepreneurial ecosystems have a strong urban characterization. Their locational patterns have been presented in chapter 5 of this thesis. The available data permitted to map the location of the Roman innovative start-ups and co-working spaces over time, while the locational preferences of the makers’ category were tested in the pilot survey. All geographical considerations have been complemented by data collected through the interview process. The urban location is both the result of the increasing cultural contents permeating cognitive-cultural capitalism, as well as a response to the diversity of skills required to produce this type of innovation. Additionally, the young age of professionals, and their necessity of a network - to quickly activate knowledge spillovers and test their innovative solutions on the market – also play a role in electing the city as the favourable location for this type of agglomeration. The result is a geography of in-between inner urban areas.

Whilst the settlement of start-ups appears as randomly distributed throughout the inner city – whose boundaries are identified by the Grande Raccordo Anulare – certain concentration areas, displaying higher innovative capacity, have emerged in the inner urban periphery of Rome just outside the historical city centre. Those areas correspond to the locational patterns of the different co-working spaces of Rome and they function as satellite hubs of the
ecosystem. However, throughout my investigation, I have identified three different typologies of CWSs, according to the impact on the surrounding context and the entrepreneurial ideology they incorporated. Different typologies of space also correspond to different urban areas of this inner peripheral crown.

The taxonomy of such shared spaces is not given by the ownership situation of the spaces but rather by the way they were settled and by their ideological orientation. Given the lack of regulations, a number of different managerial structures exist, although the main discriminant is whether they were established as bottom-up initiatives or with top-down contributions. The first typology of space, CWS1 or the ‘social incubator’ carries a manifesto of social entrepreneurship, established by professionals who are very sensible towards matters of urban regeneration of the surrounding area. This group of spaces tended to focus more attention on the neighbourhood selected for settlement rather than on the building. Areas of concentration for spaces of such typology are Garbatella, Portonaccio, Pigneto or Tuscolano. Those areas, once peripheral, are now part of the established urban fabric of Rome but some social tensions are still evident especially due to a generational turnover and the relating gentrification effects that are occurring. In certain cases, like for Pigneto, the phenomenon is happening with some positive consequences for the regeneration of the area. The identity of such neighbourhoods is still quite authentic resonating of historically left-wing political influences. Then the availability of empty and affordable warehouses or of decaying buildings in need of new use also contribute to the agglomeration. Local authorities from
these boroughs tended to be more welcoming and responsive to innovation, and willing to integrate innovative workplaces in their local offer of amenities.

The second typology, CWS2 or ‘the business incubator’, corresponds to those spaces established in partnership with the public sector, State led agencies or big corporations (either private or public). They are more corporate oriented, mainly targeting start-ups in the digital field and they usually host incubator or accelerator programs, nurturing linkages with investors and venture capitalists. They settle in premier real estate locations, usually granted by the corporate partner, as they care about the exposure and the branding power of the premises they chose. Areas of concentration include neighbourhoods such as Prati or Eur, but more usually, their locational patterns depend on that of the company that supports them. Finally, the third typology CWS3, or the ‘commercial incubator’, stands as a sheer commercial product only witnessing the spreading fashion of shared service accommodations. Usually these spaces tend to be located in the historical centre and they do not have a real impact on the agglomeration of firms.

The most relevant element of this geographical analysis stands on the observation that these agglomerations settle on pre-existing urban environments. For this reason, some new variables need to be considered in addition to those traditionally influencing agglomerations. Namely, they correspond to real estate market trends, the quality of the premises, the cultural identity of the place, or its branding value. Therefore, the economic and geographical model of the Fourth Italy is deeply intertwined with planning
implications. Its knowledge could help the design of adequate governance tools to steer regeneration strategies enhancing the changes imposed by the settlement of such ecosystems in our cities.

7.2.3 The structure of the network: old and new institutional support

SQ3: What is the role of institutions in the creation of an innovation hub within the city of Rome?

Chapter 6 has analysed the role of institutions in the process of agglomeration accountable to the Fourth Italy. Given the Italian context and its cultural and institutional embeddedness (Granovetter, 1985) the expectations were to find a similar system of untraded dependencies to that of the industrial districts, especially dealing with even smaller firms. Trust relations are indeed a very important ingredient of the new Roman ecosystem of innovation however, a series of new intermediaries have also emerged.

Other than the physical fragmentation of the city of Rome, most of the respondents criticised its institutional fragmentation. In particular, criticisms to the lagging socio-economic context and the dysfunctional system of governance and economic development policies apply both to the national and to the city level. First, the lack of a unifying and strategic governmental vision has been highlighted. Then, an institutional gap has been lamented in coordinating measures at the city level, leaving on one side the regional authorities - highly influenced in their operation by the availability of funding coming from the EU – and on the other, the very local level of the boroughs.
Here, most of the agreements occur in an informal way, as the Italian bureaucratic system do not grant much decisional power to those administrative units. Geographically speaking, most of the regional resources are currently absorbed by the metropolitan region of Rome, which especially on matters of innovative entrepreneurs seem to be the regional catalyst. Therefore, the lack of a responsive mayoral establishment represents a real problem limiting the economic development of the city and neutralizing the effect of the relating regional measures.

In this complex and fragmented context, some new informal institutions such as co-working spaces and temporary clusters have emerged as key enabling actors of the Roman ecosystem of innovation. The micro-clustering role of co-working spaces adds up to some more traditional mediatory actors such as trade associations e.g. CNA, or specialized regional agencies e.g. Lazio Innova or BIC Lazio, which were already enablers of the industrial districts from the Third Italy. However, formal enablers - such as regional agencies - or that of infrastructures - such as techno-poles – are merely imitating the tasks undertaken by the other informal intermediaries, demonstrating their limitations in capturing the needs of the new professionals.

Formal institutions are betting and investing much more in education and exposure events such as Maker Faire, while the creation of a network awareness and the enhancement of agglomeration effects relies on the role of intermediaries. The two most influential nodes emerged in the ecosystem correspond to co-working spaces from typologies 1 and 2. The first one, or
‘social incubator’, is more connected to the local authorities. While the second one, or the ‘business incubator’, entails relations with investors and the financing pipelines. Some managers from both categories - being by now quite well known representatives within the ecosystem - might be contracted by formal institutions for educational purposes of different nature. Using the metaphor of the constellation, currently the various nodes, or hubs, of the Roman ecosystem of innovation are not very well connected; so, the role of the intermediaries consists in reinforcing these linkages.

A number of intermediaries also intervene in the processes of finance supply, both public (Fondo di Garanzia) or private (venture capitalists or crowdfunding), often slowing down the distribution process and therefore the economy. The structure of the financing opportunities is still quite similar to the time of the Third Italy, foreseeing a governmental predisposition towards no-security loans for start-ups rather than connecting the various economic sectors of the city region and creating a coordinated and themed strategy. Again, the lack of tailored measures on the contemporary agglomerations of innovative firms and the lack of awareness of the relevant institutions harms the proper development of the Fourth Italy.


The Fourth Italy is proposed in this thesis as a new theoretical and conceptual entity. This section reviews the major contributions made, and the implications for the literature in economic geography and regional development. The Fourth
Italy is urban, cross-sectorial and locally embedded. It stands as a new geographical model, providing a contribution to the theory of agglomeration accounting for the latest challenges affecting small enterprises and urban locations. The Fourth Italy also corresponds to a new idea of innovation that reveals an increasing gap between global production of innovation - mostly relying on MNEs - and local production of innovation, relying instead upon very small to individual entrepreneurial units and freelancers.

The theorization on the Third Italy by Bagnasco (1977), other than revealing the geographical and economic distribution of firms in Italy, has implied the blending of economics with sociology. The scholar pointed out the necessity of taking into account the influence of the *milieu*, or the surrounding socio-economic and political context. The study came at an important turning point that saw scholars interrogating themselves on the decline of the Fordist mode of mass production (Piore and Sabel, 1984; Scott, 1988b). From that moment and increasingly after the emergence of global markets, research on industrial districts triggered a whole new stream of studies on regional development and the spatial dimension of economics (Storper, 1997). The Fourth Italy goes one-step forward, implying the entrance of planning and governance variables in matters of economic development. Moreover, the urban centrality of this new model also implies a further change of unit from regional to local development.

To define the conceptual framework of the Fourth Italy, this thesis has bridged knowledge from traditional agglomeration theory with that of the cognitive-cultural capitalism. The choice mirrors the changes occurred in the typology of
activities and economic sectors. Creative and cultural industries are commonly associated to cities (Pratt, 2008b; Storper and Scott, 2009). An attempt was made by Porter (1998) to bridge, through his cluster theory, those appealing concepts for policy makers to traditional notions of agglomeration, yet in a too general manner. It is with Scott (2008) that the broader capitalistic implications of the entrance of culture in the commodity chain and its progressive blending with innovation creation are recognized. The integration of these new economic activities in the study of agglomerations is therefore a necessary condition to reflect present times.

The debate on the evolutionary scenarios of capitalism and the rupture in the typology of activities from one geographical model to the previous, offer a parallel with the time of the Third Italy. Literature encouraging the flexible specialization of industrial districts has stemmed from a wave of Gramscian geography, looking at traditional capitalism and Fordism in a critical way. Gramsci’s socialist reading of capitalism found fertile ground especially in the Italian post-war - and post-regime - period, creating the adequate socio-political and contextual conditions to grant regional support to the creation of the industrial districts (Brusco and Pezzini, 1990). Then, in the transition from ‘industrial’ to ‘informational’ capitalism (Castells, 2010) the Third Italy became the model to retain regional diversity and resources. The Fourth Italy is settled in a further transition towards ‘cognitive’ capitalism, witnessing cities as the new economic driver of growth and even newer challenges offered to traditional manufacturing by the further development of technology.
The shift in the terminology from “industrial districts’ to ‘entrepreneurial ecosystems’ of the Fourth Italy reflects the major theoretical foundation of the new agglomeration. Rather than following a Marshallian and its conception of externalities and horizontal specialization, the new agglomerations are more rooted in a common ground between Jacobs’ sociological conception of urban diversity and externalities (Neffke et al., 2008), and Schumpeter’s economic theory on the entrepreneurial power of creative destruction.

The Fourth Italy as a new urban and socio-economic model highlights the need to appreciate the subtle changes that determined the revival of urban economies and cities. The development of this new type of agglomeration is not just another case of old wine in new bottles (Harrison, 1992); industries and technologies have changed since the time of Jacobs (1961) and Hoover and Vernon (1959), yet a circularity can be identified. The ‘informational age’ signed a period of counter-urbanization trends: it implied important changes in the job market and the possibility of remote working, suggesting the death of the city and the lack of importance of places. However, the urban revival that we have observed, has confirmed the importance of places and face-to-face contacts (McCann, 2007). The emergence of co-working spaces as key nodes of the new agglomerations has however, revealed further changes in the labour pooling, with increasing rates of freelancing and project-based jobs. The situation is a consequence of the general downturn and of the increasing neo-liberalization of social securities.
As from the analysis of the literature in Chapter 2, the relationship between urbanization and economic development is a complex, evolving one that shows some cyclical ebbs and flows. Already regional development had stimulated a debate on place-based policies and the limitations of the “one size fits all” approach for innovation policies (Barca et al., 2012; Tödtling and Trippl, 2005). The Fourth Italy, with its implications for local economic development, makes a further step towards the contextualization of innovation production among small enterprises. It suggests that, for matters of economic development and agglomeration, the temporal and spatial dimensions need to be analysed together (Dawson, 2014). The effects of social changes should not be parted from the delivery of policy guidelines but instead accommodate them (Heirich, 1964).
<table>
<thead>
<tr>
<th>Areas of Italy</th>
<th>First Italy</th>
<th>Second Italy</th>
<th>Third Italy</th>
<th>Fourth Italy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>South</td>
<td>North-West</td>
<td>Upper central and North-Eastern region</td>
<td>Major Cities i.e. Rome, Milan, Turin, Bologna.</td>
</tr>
<tr>
<td>Geography of economic production</td>
<td>Rural areas</td>
<td>Industrial Areas</td>
<td>‘Urbanized countryside’ or ‘industrialized sprawl’</td>
<td>Urban centres</td>
</tr>
<tr>
<td>Economic model</td>
<td>Sharecropping</td>
<td>Mass-production</td>
<td>Marshallian industrial districts</td>
<td>Entrepreneurial ecosystems of innovation</td>
</tr>
<tr>
<td>Major economic sector</td>
<td>Agriculture</td>
<td>Heavy industries</td>
<td>Traditional Manufacturing</td>
<td>Cross-sectorial mix of manufacturing, ICT and cultural industry</td>
</tr>
<tr>
<td>Type of capitalism</td>
<td>Agrarian Capitalism</td>
<td>Fordism, advanced capitalism</td>
<td>Post-Fordism, Informational capitalism</td>
<td>Cognitive-cultural capitalism</td>
</tr>
<tr>
<td>Scale</td>
<td>National</td>
<td>National &amp; International</td>
<td>Regional</td>
<td>Local</td>
</tr>
<tr>
<td>Financial system</td>
<td>Subsidies from Cassa del Mezzogiorno</td>
<td>Banks and central governments interventions</td>
<td>No security loans</td>
<td>Fondo di Garanzia, or no-security loans based on EU funding; private venture capitals</td>
</tr>
<tr>
<td>Intermediaries</td>
<td>Informal intermediaries</td>
<td>Trade unions</td>
<td>Trade and business associations e.g. CNA</td>
<td>CWSs &amp; NGOs</td>
</tr>
</tbody>
</table>

Table 7.1 – The table shows a comparison of the different features of the four different socio-economic geographical models in which Italy can be divided. The fourth geographical location is added to the three areas identified originally by Bagnasco (1977). Each geographical sector can be associated to a different temporality of capitalism and to different ways of production. From the agricultural economy of the South based on sharecropping, the “industrial revolution” introduced heavy industries and the traditional model of production from Fordism. Then, with the ‘Second Industrial Divide’ the flexible specialization from industrial districts became the way to tackle the decline of mass production in an era of informational capitalism. Here, regionalism was the trend for governance. Nowadays, we are at a new turning point, the ‘industry 4.0’ and cognitive capitalism are creating a new conception of localism for which a new system of governance need to be designed.
The new entrepreneurial ecosystems, and their implications for agglomeration theory, can be observed in many other cities of the world, making it a phenomenon of worldwide interest, as with for the case of the Third Italy. Generalizing the highlighted theoretical implications and drawing upon the Italian example we can identify four different time-space situations, as shown in Table 7.1. Those four situations correspond not only to the four geographical divisions of Italy but most of all to four different socio-economic models:

1) The agriculturally based model of underdevelopment (identified with the First Italy),
2) The Fordist model of mass-production or traditional capitalistic production (identified with the Second Italy),
3) The traditional manufacturing model and the small-scale flexile specialization of the industrial districts (or the Third Italy).
4) The contemporary urban entrepreneurial ecosystems of innovation (or Fourth Italy).

*The emergence of this latest model appealing to matters of local economic development does not exclude its coexistence with the others.* In particular, it accounts for a new system of innovation and production, revealing a growing gap between global and local production networks: the first industrial one settled at the macro scale of MNEs, and the other urban settled and at micro entrepreneurial scale.

Finally, the addition of the planning dimension to the socio-economic variables affecting the processes of agglomeration and innovation creation, means acknowledging the influence of a pre-existing urban fabric. Crafting policies to
support those entrepreneurial ecosystems no longer corresponds to regulating processes of urbanization but administrating processes of regeneration. Traditional planning issues such as real estate market trends, urban decay and social inequalities affect them. For this reason, they carry important implications for planning and economic development policies, requiring new governance tools working in synergy.

### 7.3.1 Conceptual implications of the Fourth Italy

This subsection highlights the conceptual continuities and discontinuities between Third and Fourth Italy. The terms of this comparison regard: the type of activities, the geography and the networks. The discontinuity in the geography is the most evident feature. From the urbanized but industrial location of districts, we have switched to a purely urban settlement for the new agglomerations. Urban concentrations of firms came to common attention among literature on creative cities and clusters, as part of planned regeneration strategies for urban post-industrial sites. Traditional concepts from agglomeration theory are instead usually applied to industrial or outer urban locations, where it is possible to recreate the industrial atmosphere required by the traditional Marshallian spillovers. This research has brought together those two dimensions.

The changed dynamics of agglomeration are a consequence of the different type of activities and their needs. They blend traditional manufacturing, creative industries, and ICT. For this reason, they need a vertical integration of skills, and the proximity of institutions and amenities available in an urban
environment. Their networks are more complex being a mix of global and local flows. Those changes have led to a different conception of innovation, generated by different relational dynamics with suppliers and clients and an even wider concept of ‘flexibility’, applied not only to manufacturing techniques, but also to the working spaces and the required skills. However, the association between agglomeration and innovation creation stands as a continuity with the Third Italy.

In the district *milieu*, innovation was granted by the horizontal specialization of spatially proximate firms, while in the contemporary agglomerations of small innovative enterprises it is the social proximity and the vertical integration to make the difference. The main registered continuities between the two agglomerative models stand in the way networks are built, or in other words in the importance of social capital and trust relations. However, for all the above influences (different geography, type of activities and structure of networks) in this specific type of agglomeration, rather than some Marshallian externalities we observe some Jacobs’ type of externalities (Neffke et al., 2008). The change in the type of externalities, as well as the institutional fragmentation found in the Italian context explain the emergence of the new intermediaries of innovation.

These actors cover similar tasks to that of the trade associations and the social centres from the Third Italy, but the change in the actors involved reflect societal and temporal changes. Similar set of considerations apply to the different role of banks. Ultimately, it is linked to the influence of the European
Union, which plays a stronger role now for matters of economic development than at the time of districts\textsuperscript{22}.

The highlighted changes in the agglomerative process are a direct consequence of the globalization and internationalization of markets, which have influenced the dynamics of traditional manufacturing leading to the development of global production networks and pipelines of knowledge (Archibugi and Iammarino, 2002; Coe and Yeung, 2015). At the start of the new century, these global tensions eroded the traditional district dynamics stimulating regional development policies as a response to the new challenges (Archibugi and Iammarino, 1999; Storper, 1997). After the worldwide crisis from 2008, we have observed instead the renaissance of cities and a new tendency towards the enhancement of local resources and businesses. We are at a turning point, with the new agglomerations showing important implications for local economic development and the need to design a system of central governance regulating and facilitating these changes. Otherwise, there is a risk of harming the development of such entrepreneurial ecosystems and turning the renewed local orientation in some inward looking approach implying potential dramatic consequences at the political scale, such as the rise of populist movements.

\textsuperscript{22} Finances granted for no-security loans in the framework of “Fondo di Garanzia” comes from EU structural funds.
7.4 Policy implications

As the Fourth Italy model is based on an urban economy strongly embedded in the surrounding built environment, the restructuring of both the national and local economic strategies should work accordingly and in synergy with the planning system. The current research has demonstrated how the formal institutional framework and the economic strategies in place are still anchored at the time of the industrial districts. The former had been set up mainly to contrast State monopolies after Mussolini’s age (see section 2.4.1). Those tools corresponded to a regional system of no-security loans and trainings comparable to the micro financing system of the contemporary “Fondo di Garanzia” and the set of educational measures dedicated to start-ups and the entrepreneurs-to-be.

The first institutional step to retain value from the enterprises part of the Fourth Italy should be the acknowledgement of this new geographical distribution for innovation at the small scale. This formal recognition could trigger a similar effect that the Third Italy has had in branding and promoting “Made in Italy” and the Italian manufacturing throughout the 1980s and 1990s. To do so, a restructuring and renovation of the Italian bureaucratic machine would be desirable. If policies do not accommodate the new challenges offered by the new urban agglomerations and economy, the Fourth Italy risks remaining a myth rather than a reality producing effective economic growth for the country.

The recommendations for policies suggested by this research follow two main lines of action: economic development measures and planning governance. In
terms of power structure, this would mean having on one side a central national strategy and on the other some place-based policies developed in partnership by the local and the central city planning authorities. The first step would insure a system of common guidelines enhancing the multiplier effects of the new urban ecosystems, in accordance with the EU guidelines. While the second set of authorities would lead the relating process of urban regeneration. As foregrounded by the research, the city level is now the dysfunctional node of the ecosystem. The connection of the various hubs is instead key to the development of new urban economy, given the cross-sectorial nature of these innovative firms. So, how to reform the planning system to solve the issue?

Looking specifically at the Italian planning system, community participation and innovation creation from the bottom-up should be integrated in a more forward looking overarching vision at the city scale (Raco, 2000). Some more autonomy should be granted on planning and social matters to the local level of the boroughs. These should be asked to conceive ten-year horizon strategies stipulating scenarios of economic growth and planning regeneration that include the various nodes of the local ecosystem of innovation i.e. co-working spaces and other similar facilities. On the specific case of the Roman ecosystem, the city should start acknowledging the occurring changes and start steering the different economic sectors accordingly. The planning and economic objectives should be defined based on an overarching vision to relaunch the city’s economy. The new image could be based on the innovative ecosystem in the cognitive-cultural field sitting on the gold mine of cultural potential granted by the “eternal city” brand. Decisions applying to the different
economic sectors should be taken collaboratively with this overarching objective e.g. international events dedicated to start-ups should be connected to the hospitality industry.

A long-term and integrated vision seems to be lacking also at the national level, with economic development policies following a neo-liberal approach. Scholars already identified a symptom of dysfunctional national economies in the excessive attention towards urban economies as major source of economic growth (Barber, 2013; Katz and Bradley, 2013). They disclose a State that is not able to bet on the right innovative sectors (Mazzucato, 2013). I believe that the Italian case confirms the aforementioned theoretical position. The government is currently unable to perceive a long-term development scenario nor to adequately profit from the EU guidelines and the relating structural funding. Initiatives to counter unemployment and slow growth almost exclusively rely on facilitating the creation of very small enterprises. While on one hand, the creation of start-ups may well stimulate new ideas and the renewal of the economic fabric of the country, on the other hand, the follow-up phase is currently missing.

Too much attention and too many resources are devolved to educational tools and other similar mitigation tokens, outside the canonical higher educational path and without investing in research nor data storage to assess the impacts and the economic performances of those start-ups. How do they effectively contribute to regional and local development or to the urban economy of the city? Are they a slippery or a sticky concept (cf. Cantwell et al., 2001)? Is the
‘industry 4.0’ a durable phenomenon, are we facing the equivalent of a third industrial divide? Those questions remain open. Firms should become aware of being part of a cluster and an identity should be created for it. Moreover, microfinance alone, without an integrated planning strategy that connects the different economic sectors of our major cities, will never be enough to support the flourishing of the Fourth Italy, especially given its urban location.

7.4.1 Local Economic development policies and co-working spaces.

I have already highlighted the importance of adding the planning dimension to the traditional socio-economic drivers of agglomeration for the Fourth Italy model. As stated already several times, the new agglomerations hold important implications for urban regeneration strategies. Policy recommendations made here involve both the municipal authority – Comune di Roma – and the boroughs’ level – Municipio. At present, measures and tasks covered at the two levels are not defined; sometimes they tend to overlap or even to compete. Agreements still largely rely on informality; initiatives are quite fragmented and not systematically regulated. Despite the bottom-up approach of their settlement, this research has revealed some areas of concentration for innovative businesses. These locational patterns are determined by a number of factors: creation of enabling amenities, affordable real estate prices and availability of decaying venues in need of a new dedication, transport accessibility and infrastructural connection, and last but not least the openness of the local authorities and the proximity with some business institutions. In this sub-section, I provide some practical examples of
planning policies that could be implemented at the local level and in the specific case of CWSs.

The interest showed by the local authorities in the new shared working spaces, corresponded to the desire of mitigating socio-economic tensions characterising their area from a long time. The settlement of the new working spaces, also contributed to keep up the identity of the place, continuing an historic tradition of craft ateliers and former productive sites. Under the real estate point of view, these shared working spaces define a new flexible office market opening the path to new implications for the appraisal of their value and revenues as well as for new management horizons. Besides their economic role however, they also hold a social function. The development of appropriate policy framework tailoring these spaces is now required to maximize the benefits and the multiplier effects coming from their inclusion as a local amenity rather than a speculative market.

The Italian planning system needs to shift from being design based and oriented towards urbanization and growth – with the Piano Regolatore Generale being the main instrument to regulate the development of the city - to a more integrated regenerative strategy aware of the socio-economic dimension of each borough. As in the London model, each borough should have its own local planning document. Amenities like CWSs should be integrated in these documents identifying their function in accordance with the local necessities. The intermediary role of CWSs in the Roman urban entrepreneurial ecosystem have been highlighted in Chapter 6. I argue that it
is specifically in a lack of planning policies that we risk limiting CWSs’ function to a purely commercial one, while the vice versa could enhance their social impact on the surrounding community.

In terms of real estate patrimony, CWSs could represent an opportunity to reevaluate many derelict buildings and the surrounding urban areas and social fabric (INT8; INT3). Rome displays many empty premises holding a very low value at the current state of art - decaying or abandoned - which would increase if given a new dedication (INT3). Especially for publicly owned spaces, they would gain in social value while offering services to the community that would return to the city in terms of economic growth and wellbeing. Given the struggles of the Roman economy, CWSs could make a real difference (INT10; INT16).

A census of the unused public premises, welcoming projects for their renewal should be paired with the design of a system of binding contracts or ‘social leases’ to manage the private-public partnership for the future management of CWSs. Such a tool would establish a mutual collaboration between the new space managers (or developers) and the belonging boroughs. The lease contract would define the responsibilities of the leaseholder in terms of social services and the profits made by each parties. Other than bringing an income to the local authorities (more than any empty premises could do), the income generated by the leases could be destined to other matters of common utilities such as repairing streets and potholes, and it would certainly create new jobs.
Currently the grant of public spaces for the establishment of co-working spaces is based on a system of untraded interdependencies, which also threatens the resilience of CWSs over time linking their events to the political ones of the boroughs. Conversely, the definition of a governance tool, acknowledging and outsourcing certain tasks to the partnered spaces, would regulate the service for instance foreseeing in exchange refurbishment works or an adequate rent and discounting some costs from the local councils. Examples of CWSs responsibilities might include designing social inclusion programs or establishing and managing connections with local companies and corporations made accessible to the less protected categories of residents. This approach might trigger as a multiplier effect the creation of new specialized professional positions or even new jobs in different economic sectors such as hospitality.

The threat coming from this type of regeneration strategies could be gentrification. However, its more disruptive consequences could be avoided if correctly tackled by the planning system. In those Roman boroughs, we are facing a different process than in the traditional regeneration experiences occurred in many other post-industrial sites. As highlighted in Chapter 5, the generational turnover has solved some of the many social issues and frictions in the areas but it has also created new quality expectations. The design of some targeted rent control policies or rent caps for CWSs could be enough to bring the benefits of the regeneration process while avoiding the sheer commercialization of such spaces and their negative gentrifier effects.
The changes occurred in those neighbourhoods are the result of the natural expansion of the city of Rome and of the consequent population flows. The cultural life of the city has shifted towards these inner peripheral areas, once hamlets, which have been now re-populated by a new generation of educated residents (INT17). They are filling the urbanization gaps between the historical and touristic areas or the traditional business districts and the other outer suburbs less endowed with services and transport connections. The development of public/private partnerships and leases establishing CWSs as enabling facilities for a new ecosystem of entrepreneurial innovation could be the starting point to instil changes in the economic fabric of the city of Rome, while regenerating also its peripheral urban patrimony. This opens the path to multiple studies to develop even more innovative solutions of cooperation between private firms and local authorities.

7.5 Future research’s horizons

The conceptual framework of the Fourth Italy and the preliminary data on its features generated by this thesis open the path to some wide new research horizons both in the field of economic geography and planning. The follow-up lines of investigation are mainly three: the economic impact of the new model, the evolution of labour pooling and the wider real estate implications.

First, the quantitative assessment of the economic performance of those ecosystems of innovation. Five years after the publication of the first registry for innovative start-ups, data on their performance, failure rates, impact on national economies and employment rates should be accessible and
quantifiable. Similar sets of considerations apply to the impact of CWSs and innovative enterprises on matters of local and regional economic development. Specifically relating to the Italian context, this would correspond to an assessment of the policies in place during the last government on matters of economic growth and innovation. Further conceptual developments regard the increasing divide between global and local innovation, the future horizons of the so-called ‘industry 4.0’, the design of new tailored policies and the role played by institutions. Finally, further thoughts should be dedicated to the way the two conceptions of innovation at the global and local scale respectively led forward by MNEs and urban SMEs interact.

The second stream of research regards the evolution of labour pooling and the increasing number of project-based jobs. The figure of the entrepreneur is changing and the job market is registering increasing uncertainties and a remarkable precariousness. Where is the job market going? What implications does the increasing flexibility and uncertainty carry for the mobility of workers and for the habits of the next generation of skilled labour force? How is the labour market likely to evolve and how can lagging contexts such as the Italian – supported by EU policies - overcome the current neo-liberal attitude to economic growth and employment policies?

Finally, the Fourth Italy carries important implications for real estate and planning. A new appraisal model for the new flexible shared office spaces should be developed. Drawing upon this, new research should regard additional ways to regenerate the real estate portfolio of public authorities that
are no longer in use, as well as the study of gentrification and regeneration effects for the areas where the ecosystem’s hubs are settled. On a more cross-sectorial way, this opens the path to research on the implications of contemporary urban manufacturing and the development of further dedicated governance tools.

Finally, to generalize the implications of the Fourth Italy model, comparative studies with other cities could be led. The Roman data, regarding the performances, locational and institutional patterns as well as the structure of the networks, can be matched with those coming from other Italian cities. In particular, a comparison with the case of Milan might allow for better understanding of the contextual influence and the differences triggered by the presence of institutions. Milan, other than having a regional tradition in the field of manufacturing districts, presents indeed a similar ecosystem of innovation, although here the private sector is much stronger than in Rome.

In the wider European context, it could be interesting to test the theoretical model of the Fourth Italy in German cities where policies are now specifically targeting CWSs and start-ups, or in Paris and Barcelona where CWSs are significant in number and the start-up scene is flourishing. In these cities, events linked to the rising ecosystems of innovation are intertwined with the planning implications of the sharing economy. Finally, even a context like London can offer interesting lines of comparison, as here CWSs are more of a commercial phenomenon and start-ups are better connected to MNEs and
global channels of innovation. Similar comparisons can be set even with the wider American arena of cities, hosting similar entrepreneurial ecosystems.

### 7.6 Conclusions

This doctoral research has challenged some traditional concepts from agglomeration theory that appear nowadays to be as incomplete or partly outdated. The model of the industrial districts from the Third Italy is still widely used as a term of historical comparison for contemporary agglomerations of small enterprises. However, this comparison appears inaccurate, as it does not take into account the temporal dimension in which we currently stand, deeply influenced by the pace of technology and the new cognitive dimension of capitalism. The current research has therefore provided a new model of agglomeration, analogous of that from the Third Italy but more eradicated in the contemporary urban economies and cognitive capitalism framework. The Fourth Italy and its urban location adds the planning dimension to the socio-economic dynamics of regional development described by Bagnasco. The contemporary entrepreneurial ecosystems of innovation carry important implications for the delivery of local economic development policies and planning governance tools. In this sense, the main contribution made by this research is an update to agglomeration theory. The primary data collected and analysed by this thesis open the path for further research, policy and conceptual development. Innovation dynamics are now split between global and local scale, with increasing pressures on cities and a new localism trend. Tackling the new challenges with adequate governance tools is deemed necessary to contrast the widespread populist movements.
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Appendix A

9.1 Pilot survey questionnaire

QUESTIONNAIRE SURVEY OF MAKERS

(STRICTLY IN CONFIDENCE)

My name is Stefania Fiorentino. I am a doctoral student at UCL – University College London investigating the role of trade fairs in the development of business. I would be grateful if you would spend 5 minutes to complete this brief questionnaire.

There are no commercial interests attached to this survey. It is purely for academic research purposes and all information will be anonymised and kept confidential. I will be at the Fair and am happy to answer any questions you may have regarding this research.

GENERAL INFORMATION

1. Firm/Professional name

2. Are you a:
   a) non-professional
      i) student
      ii) other: ................
   b) professional:
      i) free-lance
      ii) firm
      iii) other: ................

3. Main premises ............................................................

4. Web-site ........................................................................

5. Which type of accommodation do you use for your activity?
   a) Home
   b) University or others similar institutions
   c) Site/building owned or rented solely by your business
   d) Shared service accommodation (Fab-lab, co-working space, etc.)
   e) Other: ..........................................................

6. Please explain this choice of accommodation?
   ......................................................................................
   ......................................................................................

7. Where is the location of the main premises?
   a) City centre
   b) Inner suburbs
   c) Outer suburbs
   d) Outside the city region area

8. Please give up to three main reasons for the choice of this location.
   a) ...................................................................................
   b) ...................................................................................
   c) ...................................................................................

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14 Upper Woburn Place, London WC1H 0HN
BUSINESS

9. Which is your activity? Which kind of product/service do you sell?

10. Please describe what you feel is the competitive advantage of your product or service

11. When did you start your business?

12. How many employees or associates do you have?

SUPPLIERS AND CUSTOMERS

13. What % of all inputs you purchase are bought locally (from within the city-region of your headquarters)

14. What % of your sales are local (from within the city region of your headquarters)

15. What % of your sales is for international export?

16. On what basis do you generate business?
   a) Per item/service product sold
   b) By time spent providing service
   c) As a percentage of a larger contract
   d) Other

THE ROLE OF MAKERS FAIRE

17. How many previous Makers Faire editions have you attended?

18. How important for you is this edition of the maker faire in terms of:
   (Please rate your answers on a growing scale from 1 to 5)
   a) innovation and updating your products or services
   b) Gaining new clients/increasing sales
   c) building professional linkages with others in the field
   d) identifying and accessing government/third sector stakeholders useful to your business
   e) developing or testing new product on the market
   f) export your product/services
   g) recruiting new employees

19. What are the three main benefits you are expecting from this Maker Faire’s edition?

Thank you very much for your assistance.

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The New Geography of innovation in the cognitive-cultural economy.
The case of Rome.
This study has been approved by the UCL Research Ethics Committee (Project ID Number): 8583/001.

Sono lieta di invitarla a partecipare a questo progetto di ricerca.

Nome del ricercatore: Ing. Stefania Fiorentino
Contatto: stefania.fiorentino.14@ucl.ac.uk

INFO SUL PROGETTO:
La presente ricerca intende investigare i cambiamenti registrati nella geografia economica italiana negli ultimi decenni. Il focus è sulla scena dell’innovazione Romana e sui cambiamenti registrati nell’economia urbana della città. Per questo motivo si mira a raccogliere dati sulle piccole e medie imprese attive nel campo dell’economia creativa e culturale in commistione con le nuove tecnologie. La ricerca intende mappare e descrivere i cambiamenti registrati nelle caratteristiche dei professionisti attivi nel settore, negli spazi di lavoro, nella scelta delle relative locations e dei loro network. Lo studio include inoltre una panoramica sulle strategie e i provvedimenti atti a promuovere l’innovazione a Roma, e dei rapporti che intercorrono tra le aziende e le istituzioni amministrative ed economiche regionali e locali.

Metodologia: i metodi utilizzati includono un analisi quantitativa di dati statistici, e uno studio qualitativo fondato su sondaggi e interviste con le figure chiave del panorama Romano dell'innovazione.

Pubblicazioni: i risultati della ricerca saranno oggetto di una tesi di dottorato e di pubblicazioni su giornali accademici di settore.

Il ruolo dei partecipanti:
- I partecipanti sono stati selezionati a campione tra le figure chiave del panorama economico Romano legato ai concetti chiave di innovazione e PMI.
- Le informazioni fornite verranno registrate previo consenso, e verranno usate unicamente a scopo di ricerca. Non ci sono interessi commerciali connessi allo studio.
- Le interviste registrate verranno poi cancellate, solo le trascrizioni saranno salvate su computer protetti da password e sistemi di sicurezza della UCL, consultabili solo dal ricercatore.
- Su richiesta i partecipanti potranno scegliere di rimanere anonimi.
- I partecipanti sono liberi di tirarsi indietro in qualsiasi momento senza nessuna conseguenza.
- Tutti i partecipanti se interessati potranno ricevere una copia informativa del report finale.

GRAZIE per l’attenzione e per la partecipazione alla ricerca.
All data will be collected and stored in accordance with the Data Protection Act 1998.

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Dichiarazione di consenso per progetto di ricerca in Studi Urbani

La prego di completare questo modulo dopo aver letto l’apposita informativa o aver ricevuto adeguate spiegazioni in merito alla ricerca in atto.

Ricercone: Ing. Stefania Fiorentino

Grazie per aver letto e deciso di partecipare alla ricerca.
Il ricercatore provvederà a rispondere a qualsiasi domanda aggiuntiva in merito.
Le verrà consegnata una copia di questa dichiarazione di consenso a cui potrà far riferimento in qualsiasi momento.

Io sottoscritto .................................. dichiaro:

- Di aver letto e compreso il foglio informativo o/l’argomento oggetto della ricerca.
- Di essere a conoscenza che le informazioni rilasciate saranno oggetto di pubblicazione accademica finale e che su richiesta me ne potrà esser rilasciata una copia riassuntiva.
- Di acconsentire che le informazioni siano registrate per poi essere usate al solo scopo di ricerca.
- Di aver compreso che il mio titolo di lavoro o settore di attività potrebbe essere menzionato nel documento di ricerca finale per favorire gli obiettivi di ricerca.
- Di essere a conoscenza della possibilità di revocare la mia partecipazione alla ricerca in ogni momento, previa notifica al ricercatore, e senza nessuna conseguenza sulla mia persona.
- Di aver compreso che le interviste potrebbero essere registrate e di acconsentire all’uso di questo materiale per scopi unici di ricerca.
- Di aver compreso che i dati ivi raccolti sono a titolo strettamente confidenziale e verranno conservati secondo quanto previsto dal UK Data Protection Act del 1998.
- Che il progetto di ricerca in questione mi è stato sufficientemente spiegato e che ho acconsentito a partecipare allo studio.

Firma: ................................................................. Data: ..............................................