



OECD Local Economic and Employment Development (LEED)
Papers 2021/04

Veneto: A manufacturing
region with a cultural
and creative edge

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<https://dx.doi.org/10.1787/54dc699f-en>

Veneto: A manufacturing region with a cultural and creative edge

By Pierluigi Sacco

The COVID-19 crisis has provided an opportunity to rethink the Veneto Region's economic strategy. This paper examines the links between cultural and creative sectors and the regional manufacturing economy of the Veneto Region in the North of Italy, highlighting the important role that cultural production, and in particular Venice, can play in the region's post-pandemic recovery and innovation strategies.

JEL codes: O31; R12; Z18

Keywords: Veneto; culture, cultural and creative sectors; innovation; competitiveness; local development



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Acknowledgements

This paper was drafted by Pier Luigi Sacco, Senior Advisor at the OECD, in the Centre for Entrepreneurship, SMEs, Regions and Cities under the leadership of Lamia-Kamal Chaoui, Director. It is part of the Programme of Work of the Local Employment and Economic Development (LEED) Programme's activities on culture. The author thanks Mario Volpe, Professor of Economics, University of Venice Cà Foscari and Advisor to the Foundation of Venice, as well as Francesco Valle, OECD consultant, for their inputs. Extensive comments by Nadim Ahmad, Deputy Director of the Centre for Entrepreneurship, SMEs, Regions and Cities (CFE) as well as Karen Maguire, Head of the Local Employment, Skills and Social Innovation Division (CFE) are duly recognised. Financial support from the Foundation of Venice and the Veneto Regional Chamber of Commerce for this work is gratefully acknowledged.

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Executive summary

The Veneto region is famous for its global cultural tourism hub of Venice and has a strong manufacturing base across a network of cities. But is the region maximising its economic and social potential through culture and creative industries? This paper examines the links between cultural and creative sectors and the regional manufacturing economy, highlighting how cultural production can play an important role in the region's post-pandemic recovery strategies. The effects of the COVID-19 crisis are an opportunity to rethink the region's economic strategy and in particular the role that Venice can play.

The Veneto cultural and creative economy is highly polycentric, with no clearly established regional leader. Cultural and creative sectors are organised around an axis of main cities rather than a large, single regional hub. Verona for example is more specialised in events, entertainment and recorded media while Padua leads in publishing, architectural design, film, music and video production, and broadcasting. In other sectors however, such as manufacturing (especially apparel, textiles and leather), or advertising and architectural design, the distribution is more widespread across the territory.

Significant potential could be tapped through a stronger and more integrated cultural and creative regional ecosystem

The size of Veneto's creative economy is comparable to that of other major Italian regions such as Lombardy, Piedmont, Lazio and Emilia Romagna. However, despite the fact that Veneto's creative economy takes the largest share of regional GDP compared to the other regions, it turns out that its ratio of GDP per productive unit is the lowest in the group. The Veneto creative economy therefore presents a level of fragmentation that may limit the sector's growth prospects and competitive potential.

Such untapped potential is reflected in the productive geography of Veneto's cultural and creative sectors. For instance, despite a globally strong concentration of top-tier cultural institutions, Venice is relatively weak in terms of the availability of cultural and creative production activities and its links within the region. It mainly serves as a location for tourism and high-end cultural events. It is a global stage for showcasing creative excellence. However, in part because it remains relatively disconnected from the rest of the region, beyond tourism, it is not fully leveraging its potential to act as a global gateway, production hub and ecosystem.

The Veneto cultural economy is almost entirely constituted of small and very small firms, with a very fragmented production structure, and very few large firms. This is consistent with the typical characteristics of the Veneto family-centred entrepreneurial culture that privileges the small firm model, and where ambitious growth objectives are seldom a strategic priority.

Innovation in the cultural and creative industries could be better exploited to drive regional competitiveness. Veneto is currently only a moderate innovator according to the EU Regional Innovation Scoreboard. Although the predominance of small and very small firms presents a challenge, there is potential to capitalise on the region's strengths in design, marketing and brand development to drive innovation and

increase value in manufacturing. In turn, Venice could capitalise on the city's global brand, which remains under exploited, and act as a motor for other major regional hubs, leveraging on the renewed momentum around teleworking, as a magnet for global cultural and creative professionals to live and work.

Such a strategic reorientation for Venice and Veneto more generally would require:

- **Stronger collaboration within and between the public and private sectors.**
- **Upgrading of skills and new professions for cultural and creative sectors**, particularly given the region's generally lower level of educational qualification.
- **Diversifying Venice's economy towards more cultural and creative production.**
- **Supporting greater digitalisation of SMEs** to upgrade, increase value added and better integrate cultural and creative production.

The post-pandemic recovery cycle offers a crucial opportunity for designing and launching a new local development strategy that exploits the full potential of the cultural and creative sector.

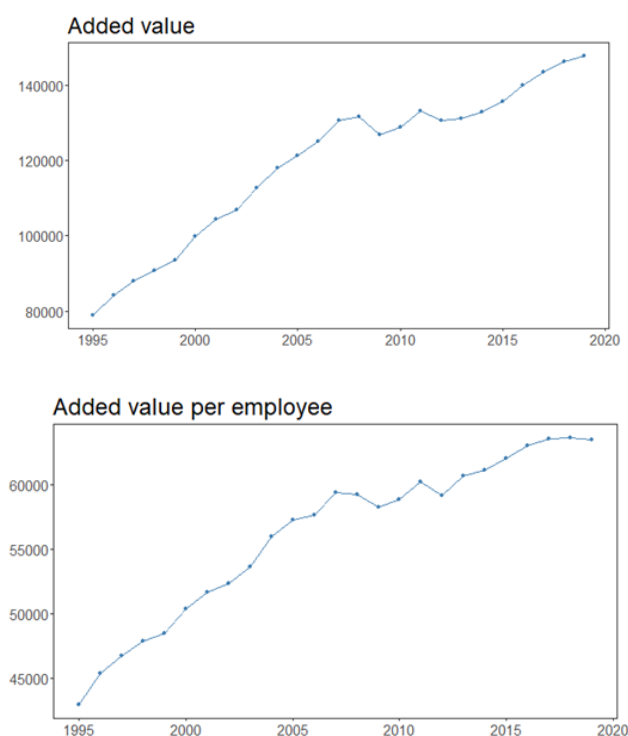
Introduction

Veneto is one of the leading Italian regions in terms of gross domestic product and number of firms per inhabitant. Veneto's industrialisation developed rapidly after WWII, with a swift transition from a mainly agricultural economy to become one of Italy's leading manufacturing regions. As of 2018, the Veneto economy accounted for 9.3% of Italy's GDP, with an income per capita 14% above the Italian national average and 9% above the average of European regions.

Veneto's economy is built upon industrial districts typical of the "Third Italy" industrial model. These districts have been historically characterised by strong local specialisations around a typical product or industrial sector and their related value chains, similar to the models adopted by several Italian regional territories since the mid-70s. However, since the mid-90s the model has entered a gradual crisis (Bianchi, 1998). As shown in Figure 1, there is a clear decline of the growth rates of value added per employee

Figure 1. Value added and value added per employee, Veneto 1995-2020

Values in euros, current prices



Source: ISTAT.

In Veneto there is no single dominant metropolitan hub where cultural and creative industries are concentrated, unlike other regions in Italy (Milan, Turin, Bologna, and Rome). While the region has world-renowned cities of arts and culture such as Venice and Verona, the metropolitan system is distributed across a network of cities that form the region's economic, social and cultural backbone: Verona, Vicenza, Padua, Treviso, and Venice-Mestre, whereas the northern province of Belluno and the southern province of Rovigo are more peripheral. This territorial organisation reflects the spatial distribution of activity, where different cities play different roles in specific sectors of activity (Pierantoni, 2015).

Several of the most important industrial districts in the region are related to cultural and creative sectors They include the printing and publishing district in Verona, the gold and jewellery district in Vicenza, the furniture district in the uppermost part of Vicenza's province around Bassano, and the textile districts in the provinces of Vicenza and Treviso. This intertwining of manufacturing, cultural and creative production is highly typical of the region's production model, together with a high incidence of SMEs and the prevalence of a family-focused business culture, where household members tend to maintain key entrepreneurial and management roles even when the firm grows to medium and large sizes.

Compared to other major Italian regions, cultural and creative sectors in Veneto are among the largest, both in terms of size and of share of regional GDP. Table 1 presents a comparison of Veneto's creative economy with those of Lombardy, Piedmont, Emilia Romagna, and Lazio. The following sectors are included, all of which span or partially include activities that refer to cultural and creative production: printing and reproduction of recorded media; furniture manufacturing; other manufacturing sectors; restaurant services; publishing services; movie, video, TV and sound production; media programming and broadcasting; architecture and engineering design and implementation; advertising and marketing research; creative, artistic and entertainment activities; libraries, archives, museums and other cultural activities.¹ Veneto is among the largest creative economies within the main Italian productive regions, and the GDP share of its cultural and creative sectors is the highest in the group, together with Lombardy, which is the national leader on the other variables in the Table.

Table 1. Business structure, GDP and GDP share of cultural and creative sectors

Region	Local Units	Revenue (EUR millions)	GDP (EUR millions)	GDP in cultural and creative sectors as a percentage of total GDP	GDP per local unit
Veneto	59 895	21 058	159 985	13.16	2.67
Lombardy	118 028	50 721	385 348	13.16	3.26
Lazio	68 774	18 370	196 296	9.36	2.85
Emilia-Romagna	52 227	13 374	157 862	8.47	3.02
Piedmont	48 877	11 235	134 710	8.34	2.75

Source: ISTAT, 2017 data.

When considering the ratio of the GDP of cultural and creative sectors to local units, Veneto presents the lowest value among the five regions. That value is 2.67 against 3.26 of Lombardy and 3.02 of Emilia Romagna, with Lazio and Piedmont also outscoring Veneto. This highlights that the regional cultural and creative sectors of Veneto are relatively fragmented when compared to similarly developed Italian creative regions. This may be an obstacle to the region's creative economy capacity to compete both at the national and global level.

¹ See Annex 1 for more details.

Nevertheless, there remains untapped potential to leverage further on the cultural and creative sector.

The growing role of cultural and creative businesses in the region provides opportunities for a new kind of industrial district, where specialisation in single products is substituted by a coexistence of firms operating in different sectors but with a common focus that can leverage on culture and creative innovation processes. Some ecosystems are already beginning to emerge. For example, the “design culture” district north of Vicenza where there is a colocation of leading regional firms such as Diesel (fashion), Dainese (technical sports garments), Bisazza (home styling and bathroom tiles), Bonotto (high-end BtoB textile design and manufacturing for the fashion industry), and Zamperla (recreational machines for amusement and theme parks) among others.

Understanding the Veneto cultural and creative economy

Although there are a number of highly innovative hi-tech creative firms, the cultural and creative sectors in Veneto are not strongly positioned towards the most innovative parts of the production spectrum. The Veneto cultural and creative economy is more focused on relatively traditional production sectors that are sometimes complementary with the highly developed cultural tourism industry.

There is scope to better leverage on the sector to boost competitiveness in a range of downstream activities that could capitalise on cultural and creative outputs, workers and skills. This is being increasingly recognised in the policy debate, such as in the EU's smart specialisation strategies (S3s) for regions. Such strategies focus on their specificities that not only reflect current factors of competitive advantage, but those which may be harnessed to develop new ones by expanding on the unexpressed local potential in prospectively key sectors (Capello and Kroll, 2016). Although cultural and creative sectors have often played a peripheral role in regional smart specialisation strategies, they have received increased attention in recent years. This has led, for example, to a forthcoming call for a new KIC (Knowledge & Innovation Community) on Cultural and Creative Industries after a sequence of KICs focused on more traditional strategic sectors such as Digital, Climate, Raw Materials, and so on. Cultural and creative sectors are increasingly regarded as a strategic area of production in their own right. The EU has also designated in 2021 cultural and creative industries as one of its 14 industrial ecosystems to be tracked going forward. Moreover, the EU initiative *New European Bauhaus* to promote Europe's green transition essentially relies on cultural and creative skills in a broad spectrum of fields to develop a new strategy of environmental and social sustainability. To a large extent, such a strategy will need to be clearly articulated at the regional level.

Veneto's rich environment of cultural institutions is not well connected to the productive sector. Relationships tend to be shaped mainly in terms of partnerships and sponsorships to fund an institution's programme of activity, but strategic R&D projects are rare. In particular, there are few actions to leverage the innovation potential of cultural and creative institutions, and their role in the overall regional value chains seems confined to communication and territorial branding. Therefore, while Veneto is a cultural region, at the moment this is in a relatively traditional sense. Going beyond this limitation and tapping into the opportunities related to the innovation accelerator potential of culture is can be one of the region's future main growth areas.

The role of cultural and creative sectors in regional economies

The actual distribution and characteristics of a regional cultural and creative economy depends on a variety of factors. They include the particularities of the economic and social systems, the structure of the demand for cultural products and experiences, the local culture, traditions, and habits, the local market conditions, and the local and regional policies, among others.

The regional level is particularly well-suited to capitalizing on the broader development potential of cultural and creative sectors. Recent research (Boal-San Miguel and Herrero Prieto, 2020) shows that cultural and creative sectors tend to be mainly localized in urban areas, although often generating significant spillovers in nearby areas. However, the regional dimension helps to understand and characterize the territorial dynamics at work in urban and surrounding rural areas, not only in terms of analysis but even more in terms

of policy design to promote those spillovers as well as tackle spatial inequalities and to favour the integration and inclusion of geographically peripheral as well as creatively and economically underdeveloped areas.

In Italy, regions have significant autonomy and policy initiatives with regard to cultural policies, and Veneto is no exception. For instance, the recent Veneto Regional Law (LR) 17, dated 16 May 2019, regulates regional interventions for the valorisation of cultural and heritage assets as well as the promotion and organisation of cultural activities and live shows. Regions also have notable autonomy in other fields that are strictly complementary to cultural and creative industries, such as support of innovation, start-ups and technological transfer. Other complementary fields, such as education policies, are however managed, mainly at national level (apart from private educational institutes not issuing nationally valid educational certificates [*scuole non paritarie*], which are managed regionally). The exception is for public universities, where there is a large scope for strategic autonomy.

For analysis and policy, it therefore makes sense to study cultural and creative sectors at the regional level despite the complex relationships with both upper and lower territorial scales. The way culture and creative production is positioned in each specific regional economy may widely differ across Italian regions in a variety of spheres. In the case of Veneto, the main feature is its strategic complementarity with the wider manufacturing economy primarily, and with the tourism industry in certain respects. Many creative professionals are indeed employed in non-creative sectors. The contribution of cultural and creative businesses to the competitiveness of the manufacturing and tourism sectors will also be of special relevance in the case of Veneto.

Is Veneto a cultural region?

In Veneto, there is a long tradition of local excellence in a wide range of traditional cultural fields such as arts, museums and exhibitions, music and opera, live shows, and cultural heritage, among others. All these sectors significantly contribute to regional gross domestic product, and often have a significant indirect impact, for instance in the food and hospitality sectors. Some of the many internationally recognised Veneto cultural institutions include L'Arena (Verona) and La Fenice (Venice) for opera, the Olympic Theater in Vicenza, as well as a number of world-renowned museums and heritage sites such as the Gallerie dell'Accademia in Venice and the Scrovegni Chapel in Padua. In Venice alone there are at least 30 museums of international and global relevance. Veneto has 9 UNESCO World Heritage Sites, including a new one added in 2021, the *Padova Urbs Picta* city-wide treasury of medieval paintings in the city of Padua. There are also important private museums and foundations such as, among others, the Guggenheim and Cini Foundations in Venice, as well as the Venice Biennale, one of the world's most prestigious arts institutions. Veneto is not only one of the outstanding arts and culture regions in Italy, but also a notable arts and culture region at the global level. The high levels of cultural tourism position Veneto, according to Eurostat 2017 data, as the top Italian region for tourism and fifth in Europe. Around such cultural institutions there is a variety of flourishing specialised businesses that provide services in such diverse fields as logistics, exhibition design and installation, stage design and management, catering, and so on.

Does Veneto have cultural education institutions?

In addition to the rich landscape of prestigious cultural institutions, Veneto is also equally well endowed with important educational institutions. Its regional university system includes Padua, one of Europe's oldest and most prestigious universities, as well as Verona, Venice Ca' Foscari and IUAV (the Venice-based public university for architecture, planning and the arts), plus a number of higher learning centres as well as science and culture academies. Moreover, the region also hosts several prominent AFAM (High Learning in Arts and Music) institutions, namely art academies and music schools (*conservatori*).

The universities are strongly integrated with the local productive systems, and are actively engaged in applied research and technological transfer towards firms. However, the AFAM institutions tend to be more marginal in this regard. There would be scope for launching an innovation-oriented dialogue between the arts and music training sphere and the productive one. The main limitation seems to be the

prevalence of SMEs in Veneto's productive structure, as such small-sized firms tend to focus on already established innovation practices whose rationale is closely linked to their current core business and competitive targets.

Are there cultural districts in Veneto?

Veneto's rich cultural environment provides a promising basis for the development of culture and creativity-focused industrial districts that extend the region's traditional productive logic to the cultural sphere. However, the role of culture seems to be more complex in the Veneto case as it is not operating as a driver of specific industrial districts per se.

The economic literature has investigated at length firm location decisions. Local agglomeration of firms is driven by increasing returns from locating close to already existing firms to exploit specific place-related advantages (Cainelli, Iacobucci and Morganti, 2006). The key drivers of agglomeration are encapsulated in the so called Marshallian triad: demand and cost spatial effects, specific and thick labour markets, and the "industrial atmosphere" (Bellandi, 1989; Ellison, Glaeser and Kerr, 2010). Closeness to profitable final markets and to other firms playing complementary roles along a given value chain ensures competitive advantages in terms of travel costs, coordination of production, exchange of information, and so on. A well-functioning industrial district may be regarded as the decentralized equivalent of a large, vertically integrated firm. As a consequence, the spatial concentration of production favours a parallel concentration of skilled workers and the training of new ones, "thickening" the local labour market and making it more efficient and reactive to changes in prices, the evolution of demand, and so on. Finally, the "industrial atmosphere", which can be thought of as a local, shared organisational culture which functions as a territorially specific knowledge asset, allows firms to share experiences, information, forecasts about future market dynamics, and very specific technical knowledge. The contrary forces preventing agglomeration beyond a certain tipping point are, among others, congestion costs of all sorts (traffic, pollution, crime, etc.), the location and accessibility of immobile factors, and the dynamics of land and real estate prices.

However, applying the traditional logic of agglomeration to cultural production districts presents some issues (Sacco, Ferilli and Pedrini, 2008). Cultural districts are a direct extension of the industrial district model, e.g. in terms of vertical integration of the value chains of given local cultural and tourism industries, or as agglomerations of firms operating in the cultural and creative industries. There are important differences between industrial districts and service-oriented ones, such as tourism-focused districts that could be leveraged for cultural tourism. Whereas for traditional industrial districts the focus on intangible assets mainly concentrates upon knowledge assets, in the case of a cultural district, other intangible assets such as local identity and social capital play a major role. An intensive exploitation of the economic opportunities, such as in the case of world tourist cities like Venice, inevitably depends upon the social and cultural sustainability of the city, not to mention the environmental dimension.

Such intensive use of tourism puts the long-term viability of the production model at risk. Unlike the traditional industrial district, where sustainability concerns are mostly related to the physical environment, in the case of cultural districts all kinds of sustainability are relevant, as the very nature of the production is directly affected by environmental or social degradation and by an impoverished local cultural identity (Sacco, Ferilli and Tavano Blessi, 2013). An over-specialisation in tourism might therefore become self-defeating in that it would compromise the main attractiveness factors that drive the model. On the other hand, and unlike manufacturing, for cultural districts mainly focused on cultural and creative production there is not a strong location constraint due to the availability of physical production equipment, as in such sectors today's production is mostly intangible thanks to the massive deployment of digital technologies. As a consequence, companies and professionals in cultural and creative sectors tend to be highly mobile, and the only really long-lived districts are those which build upon a consolidated tradition and the related place branding such as the Hollywood movie district, the New York art gallery district or the Nashville and Detroit music districts. Newer, highly specialised cultural and creative districts are often typically short lived given the constant pursuit by creative professionals of the best professional opportunities worldwide.

For these reasons, the most promising forms of agglomeration extend the traditional logic of the industrial district, whereby cultural and creative production interacts with other forms of production such as manufacturing, with mutually beneficial exchanges. The interesting new cases today where cultural and creative production play a significant role are indeed not in districts centred upon a single form of production. This is particularly true in the creative dialogue between culture and manufacturing, which is the typical situation in the case of Veneto.

In this context, cultural and creative production plays a number of critical roles, such as for innovation and branding. It serves as an innovation accelerator by opening traditional manufacturing firms to a more creatively oriented approach for their own innovation processes, including by inviting organisational innovation and the motivation and involvement of their workforce. It also helps to establish a stronger territorial brand that adds to the manufacturing goods' value added, paving the way to new forms of "innovation of meaning" (Norman and Verganti, 2014). As the regional economy transitions away from more traditional single-good industrial districts, the presence of, and complementarity with, cultural and creative production could therefore play an important role in the definition of a new competitiveness model for Veneto's manufacturing sectors.

Is Veneto an innovative region?

Veneto can be considered an innovative region to some extent. The current logic of clustering leading to new forms of industrial districts is driven by the pursuit of innovation in order to remain competitive in global markets. According to the 2019 edition of the Regional Innovation Scoreboard, Veneto is classified as a moderate innovator. This data must be interpreted in a national context, given that Italy as a whole has rather modest performance in terms of innovation. The sole exception is Veneto's neighbouring region, Friuli-Venezia Giulia, the only one in Italy to be classified as a strong innovator. Other results are mixed.

- **With respect to SME performance the picture is less strong.** The Innovation Scoreboard positions Veneto among the 40 top European regions for the share of SMEs that carry out in-house innovation processes. However, the region is only sixth among Italian regions, and substantially lags behind other European regions, including some from countries with a relatively less developed industrial economy such as Portugal (which places five regions among the top six) and Greece (whose two top regions perform better than Veneto).
- **Veneto is, however, better placed as to the number of trademark applications per billion regional GDP.** For this indicator, it is the better performing Italian region in the top 40, at 21st place. The region's dynamism is therefore particularly orientated towards the establishment of new brands and the commercial development of existing assets rather than towards innovation and technological development in itself.
- **The situation is even more favourable looking at the design applications for billion regional GDP ranking.** Veneto ranks eight at the European scale, with Umbria and Marche ranking even higher, respectively first and sixth.
- **Veneto is also among the top 40 in Europe for sales of new-to-market and new-to-firm innovations in SMEs as a percentage of turnover.** This is an indicator where Italy is overall well represented, with as many as 12 regions in the top 40. Veneto is eighth in the national sub-ranking, with Italian regions substantially concentrated in the bottom half of this top 40.

When we consider the complete picture of structural indicators for Veneto, as compared to all European regions, the position is less favourable. Veneto is in the bottom quartile of regions for the share of population with tertiary education and at the very bottom of the third quartile for lifelong learning. It is around the European average for co-publications and publication citations. It is in the third quartile for public and business sector R&D expenditure, and in the second quartile for non-R&D innovation expenditures, product and process innovators, and marketing of organisational innovators. While it is also in the second quartile for SMEs innovating in-house (as mentioned above), it is in the bottom quartile for innovative SMEs collaborating with others and for public-private co-publications. It is in the third quartile for PCT patent applications (albeit

as mentioned above in the second for trademark applications and in the first for design applications). Finally, it is in the second quartile for employment in medium-high tech manufacturing and knowledge intensive services, and for sales of new-to-market and new-to-firm innovations.

Taken together, these data signal a shift towards the cultural and creative dimension as a characteristic feature of regional production, with less emphasis on core technological innovation and on other forms of process or organisational innovation. Indeed the momentum of the region's competitive development seems to focus quite clearly on the aesthetic dimension and marketing. On the other hand, it is also clear that the region suffers from basic governance gaps that limit the scope of collaboration among innovative firms and the effectiveness of public-private partnerships in R&D.

Another crucial limitation that potentially conflicts with this orientation towards the creative dimension is the low educational level of the regional labour force. This is a consequence of the prevalence in the regional economy of SMEs in manufacturing. They are generally less interested in hiring people with high educational qualifications and prefer to train people on the job. This model pulls young people away from the higher levels of the educational cycle in favour of an early introduction in the labour market. While there is a rationale for a competitive environment based upon constant flows of small, incremental innovation, higher levels of education become more critical when major structural change is needed, or a profound restructuring of value chains. This is all the truer for a territory which is trying to position itself in competitive niches that build upon branding and communication, and upon the development of sophisticated aesthetics and a design culture. Public policies and public-private partnerships are therefore crucial for the long-term viability of this competitive trajectory.

To maintain its strong orientation towards global competition, given that Veneto is far from the European and global innovation leaders, and a serious rethinking of the innovation model is needed. However, given the current trends and characteristics of the regional innovation model, there seems to be an interesting opportunity for the development of cultural and creative industries as a new innovation driver that capitalizes on the best local competitive assets, which are mostly related to aesthetic and communication elements as well as brand development.

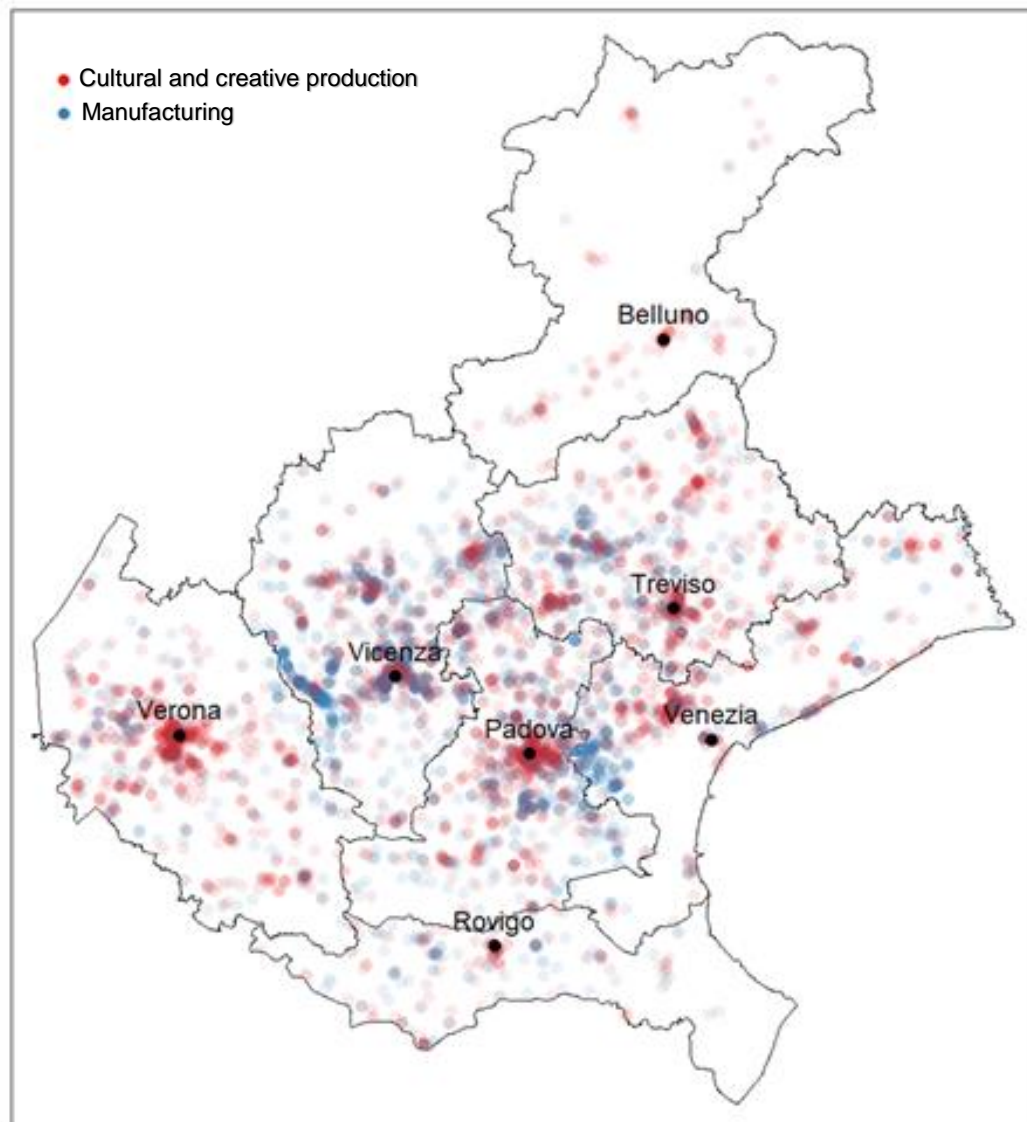
Veneto: the geography of cultural and creative production

The actual geography of cultural and creative production in Veneto is important to understand the potential for culture and creativity-driven innovation. This section considers a number of production sectors whose descriptions overlap significantly with specific fields of cultural and creative production. The caveat is that the available classification system, as noted in Annex 1, does not allow for a clear focus on only those activities that properly belong to the cultural and creative sector in the strict sense. In Annex 2, the distribution of firms' size for each of such production sectors, both at the regional level and for each province, is also presented. It should also be noted that the data considered here are pre-COVID-19, and therefore the current situation may have changed, especially in view of the massive impact that the pandemic has had on cultural and creative sectors.

There is a marked spatial correlation between cultural and creative sectors and manufacturing production (Figure 2). This data² helps to understand the extent to which the locational choices of firms already reflect this possible complementarity between the two. In particular, there are cities where the cultural component prevails upon the manufacturing one, such as in the cases of Verona and Padua, as well as others where they are more balanced, such as in Vicenza and Treviso. What is classified here as cultural also contains large components of traditional manufacturing, such as textiles and furniture, which are among the key sectors in many traditional industrial districts in Veneto. The case of Venice is more ambiguous given the coexistence of large concentrations of cultural facilities and of large industrial facilities such as the petrochemical cluster in Marghera. Away from the main urban centres, manufacturing often prevails upon more creatively oriented activities. In the more peripheral provinces of Rovigo and Belluno, the concentration of productive activities is much less dense. Close spatial colocation of the two kinds of productive activities is occurring, which lays the ground for possible complementarities, actual or potential according to the case.

² The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data, the latest available. Location quotients are instead based upon ISTAT 2017 data.

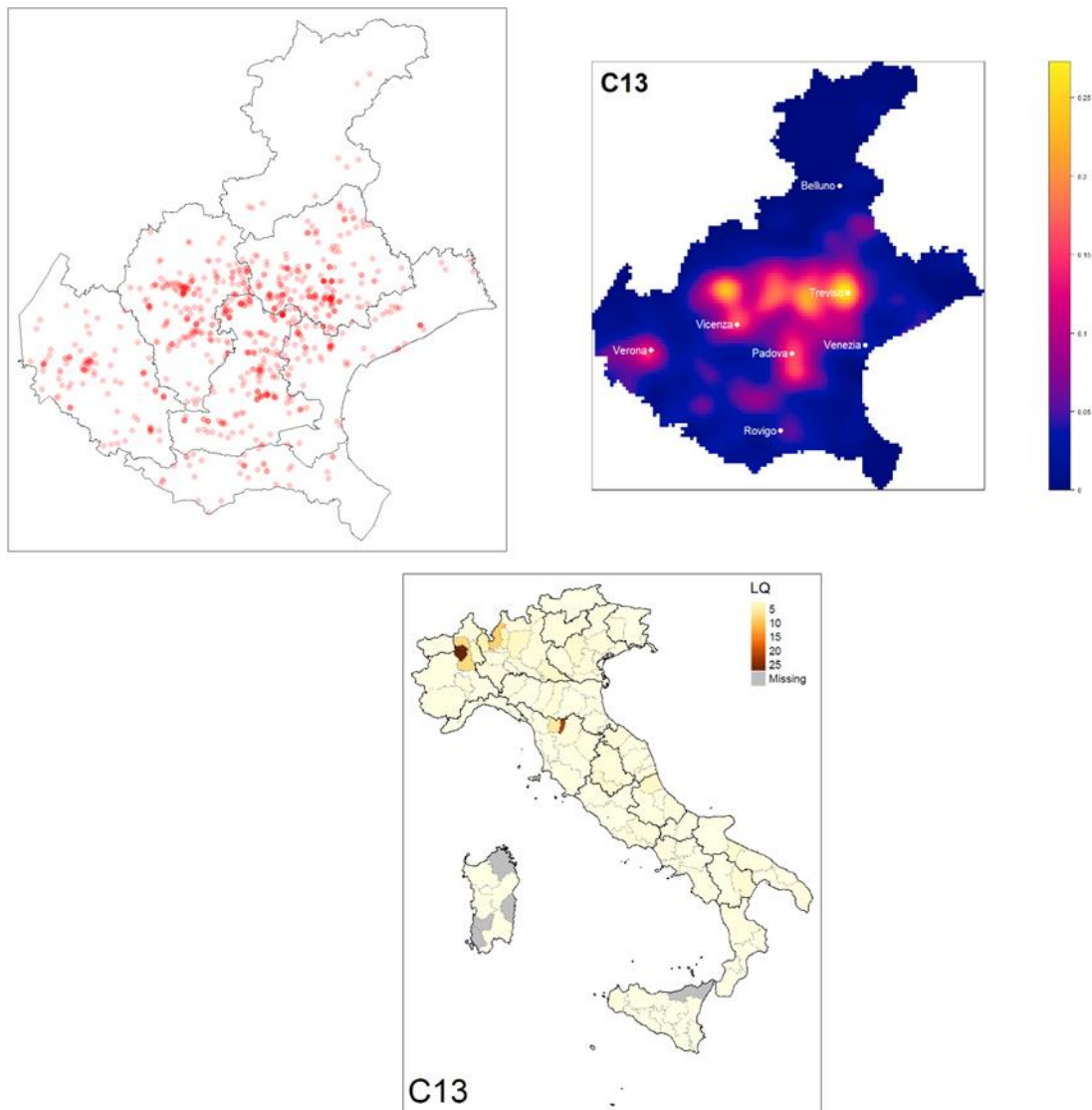
Figure 2. Culture and creative production and manufacturing in Veneto



Source: Based on the ORBIS database, 2014 data.

The following figures consider the specific geography of each of the sectors, starting from textiles. The spatial distribution, the sectoral density and the sector's location quotient within Italy are shown in Figure 3. Textile manufacturing at the regional scale is mainly concentrated between the northern Vicenza and Padua provinces and the southern Treviso province. The sectoral density map clearly shows a “corridor” that cuts through the three provinces and has its largest hub in Treviso. However, at the national scale, Veneto has modest location quotients as compared to the main Italian textile districts such as Biella-Vercelli in Piedmont, Como in Lombardy and Prato in Tuscany.

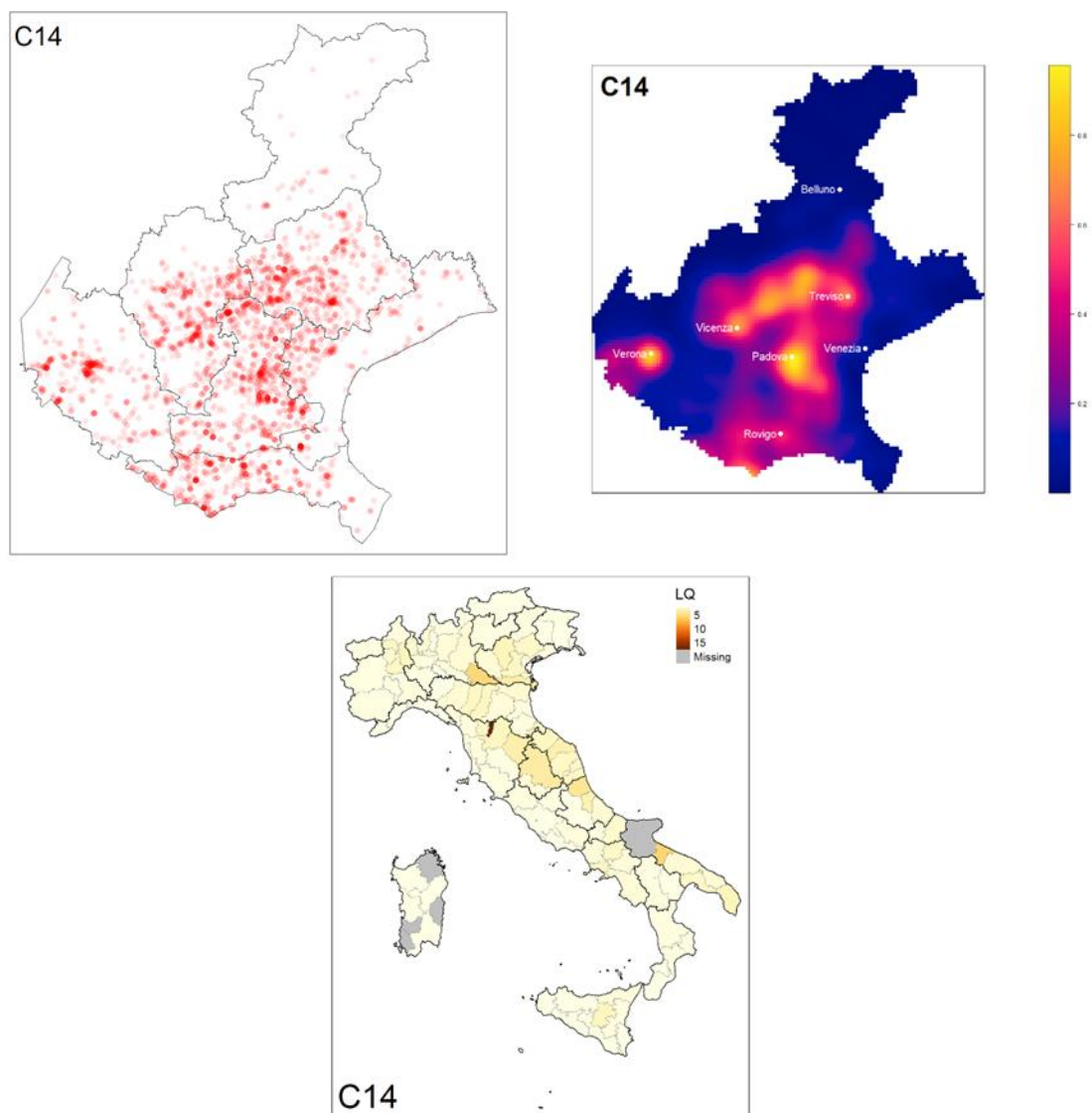
Figure 3. Textile manufacturing: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are instead based on ISTAT 2017 data.

As with textiles, the wearing apparel sector shows mixed coverage of creative and traditionally manufacturing businesses (Figure 4). However, this is a sector which includes all regional fashion brands, some of which, as in the case of Veneto, are creative businesses with a global market. There is a co-location between a highly concentrated “corridor” joining Vicenza and Treviso plus two urban poles around Verona and Padua. This particular spatial distribution is a sort of hybridization between the diffused model typical of traditional manufacturing, and the urban hubs model typical of cultural and creative production. Moreover, in the case of wearing apparel, there is not the highly concentrated production in comparison to other locations in Italy. This is further evidence of the current trend in Veneto of moving away from strict single-product districts.

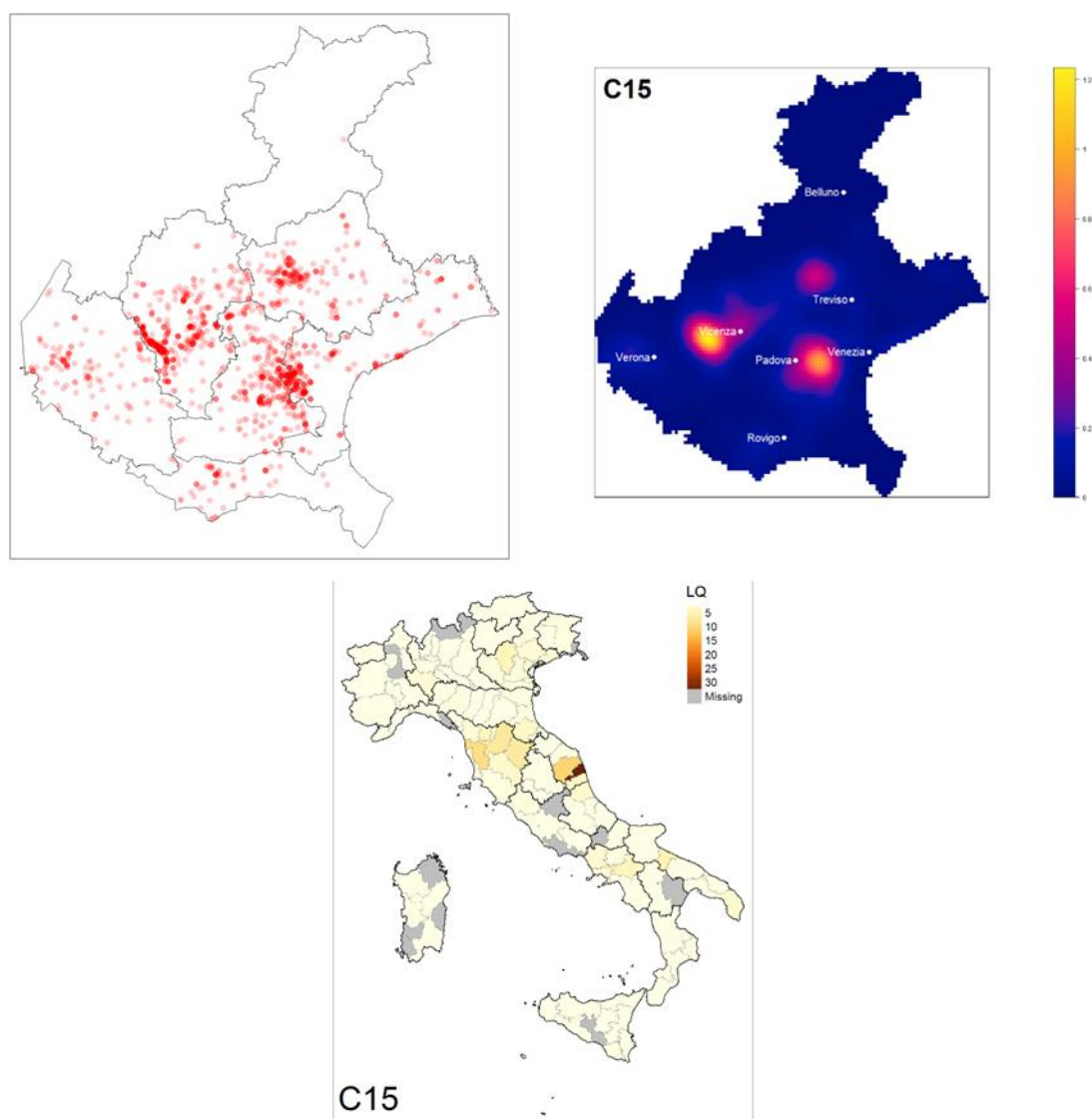
Figure 4. Wearing apparel: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

A third manufacturing sector with significant creative components, leather goods, has a very clear geography of production (Figure 5). There are essentially two main clusters, one in the western province of Vicenza (the so called Chiampo valley leather district) and one between the Padua and Venice provinces (the Brenta Valley district). While such districts are among the largest and most renowned in Italy, once again, in terms of location quotients, their relative concentration cannot compare with other, strongly mono-product leather districts such as the Tuscan leather districts (Santa Croce, Valdarno) and the Marche ones (Fermo, Macerata). This once again confirms the broad-spectrum profile of today's manufacturing in Veneto.

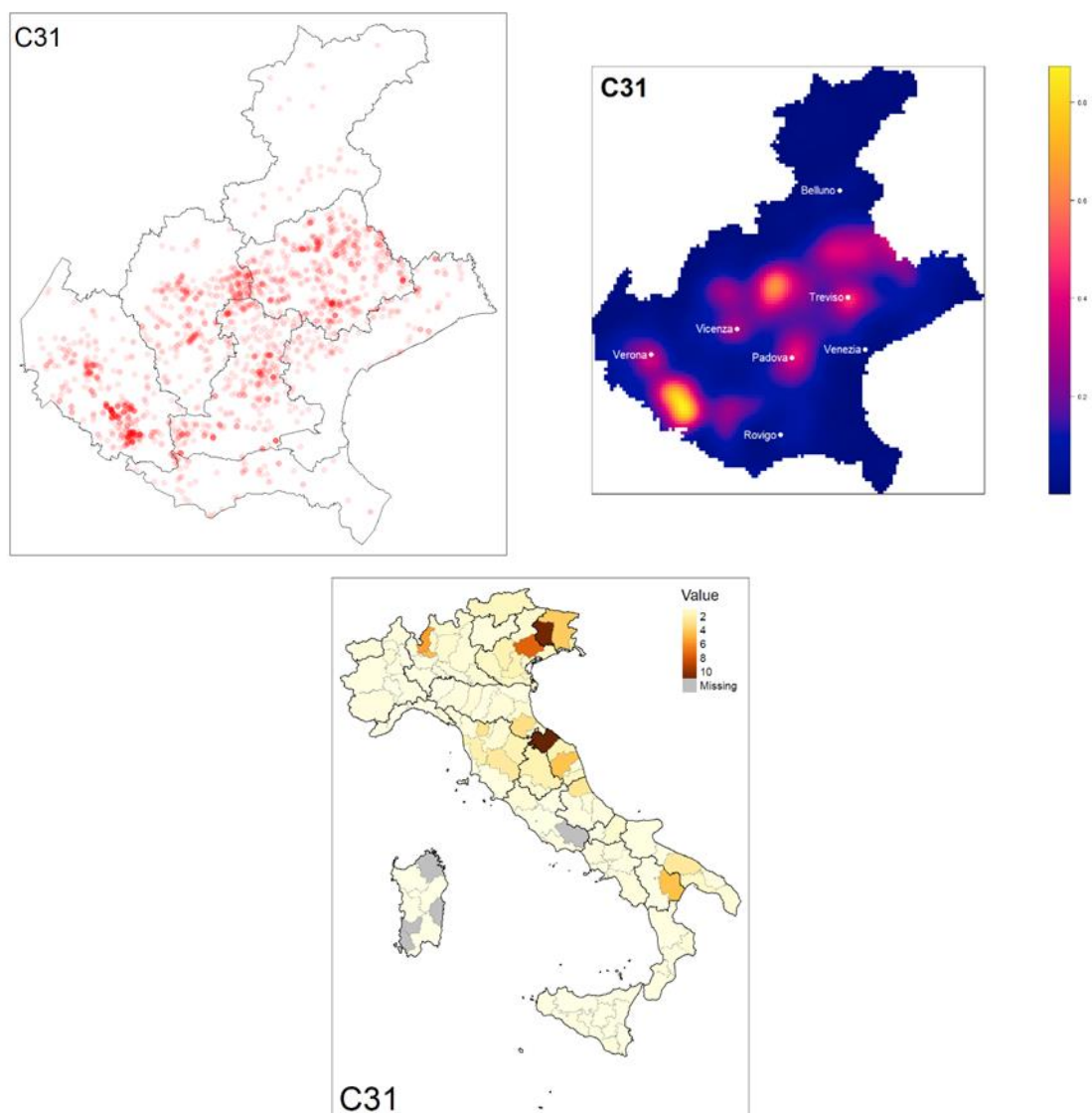
Figure 5. Leather goods: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

Another sector with similar dynamics of overlap between traditional manufacturing and cultural and creative production, in particular product design, is furniture manufacturing (Figure 6). Of the sectors covered in this paper, the furniture sector is farthest away from the typical cultural and creative production model centred about urban hubs. In this case, the main hub is in the southern, non-urban province of Verona, and a second-tier one between Vicenza and Treviso, centred about Bassano. There are, however, multiple other smaller hubs distributed across the territory. In terms of location quotient, most Veneto provinces present some level of relative specialisation, with a particularly strong concentration in Treviso. The Italian provinces with higher specialisation are well-known national production hubs, such as the nearby province of Pordenone, the Brianza district between the provinces of Monza and Como, the Marche provinces of Pesaro and Macerata, and the province of Matera.

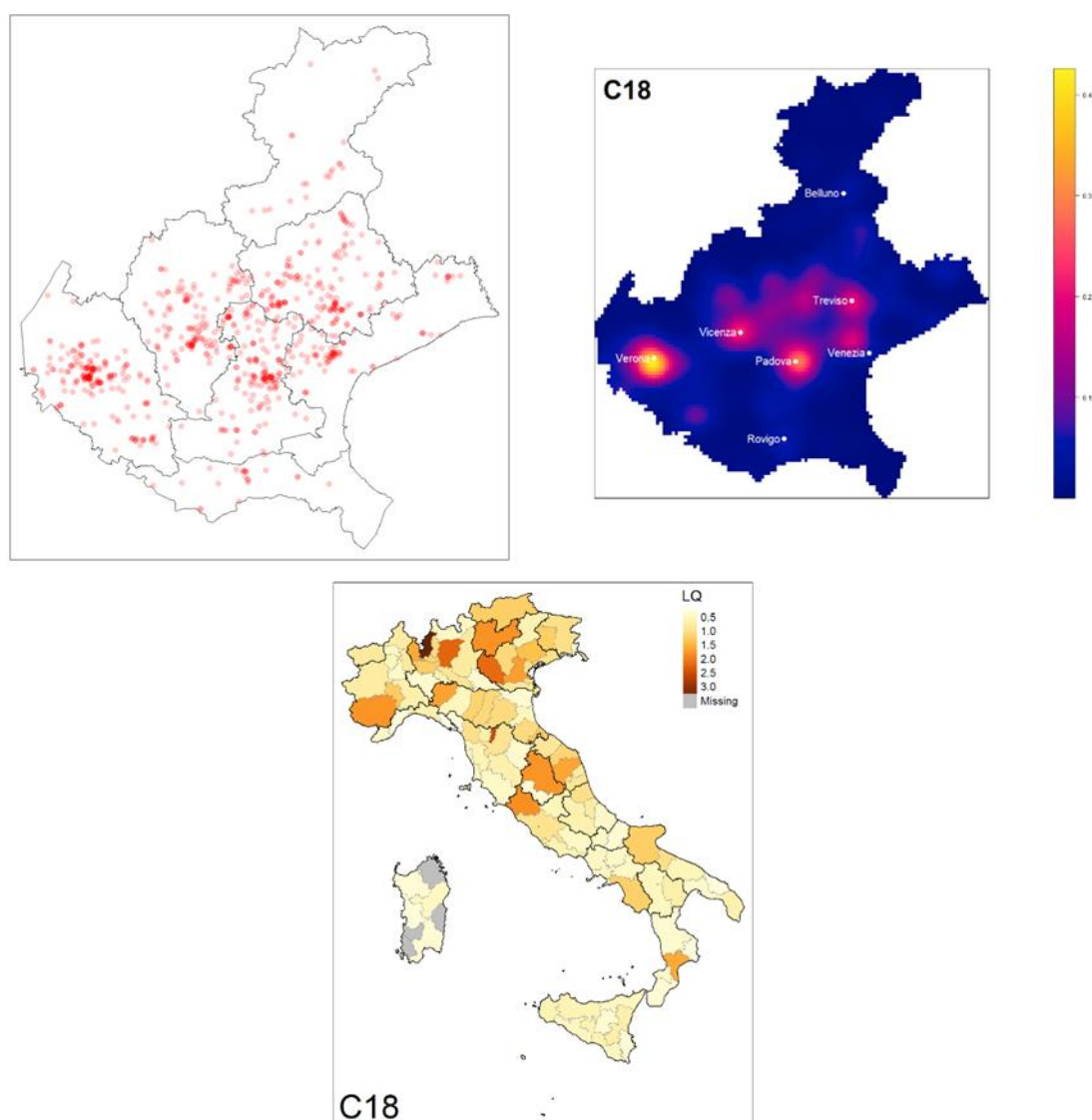
Figure 6. Furniture: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

The recorded media sector, more fully positioned within the cultural and creative sphere, has a very different geography compared to the prior figures of mixed creative-manufacturing cases (Figure 7). First, production tends to be strongly associated with the main urban areas: Verona primarily, and also Padua. Vicenza, Treviso and Mestre are second-tier cities in this particular geography, but the presence of the sector outside the main urban areas is almost non-existent. At the same time, there is a much more complex geography of relative specialisation at the scale of Italy, where Verona sits among the most specialised provinces. Padua also presents a very significant relative specialisation. It is interesting that in a solid cultural and creative production sector, such as recorded media, the profile of specialisation of Veneto at the national scale is stronger than for traditional manufacturing sectors that have, traditionally, been a backbone of the regional economy. Of course actual sector sizes may be very different from relative specialisation.

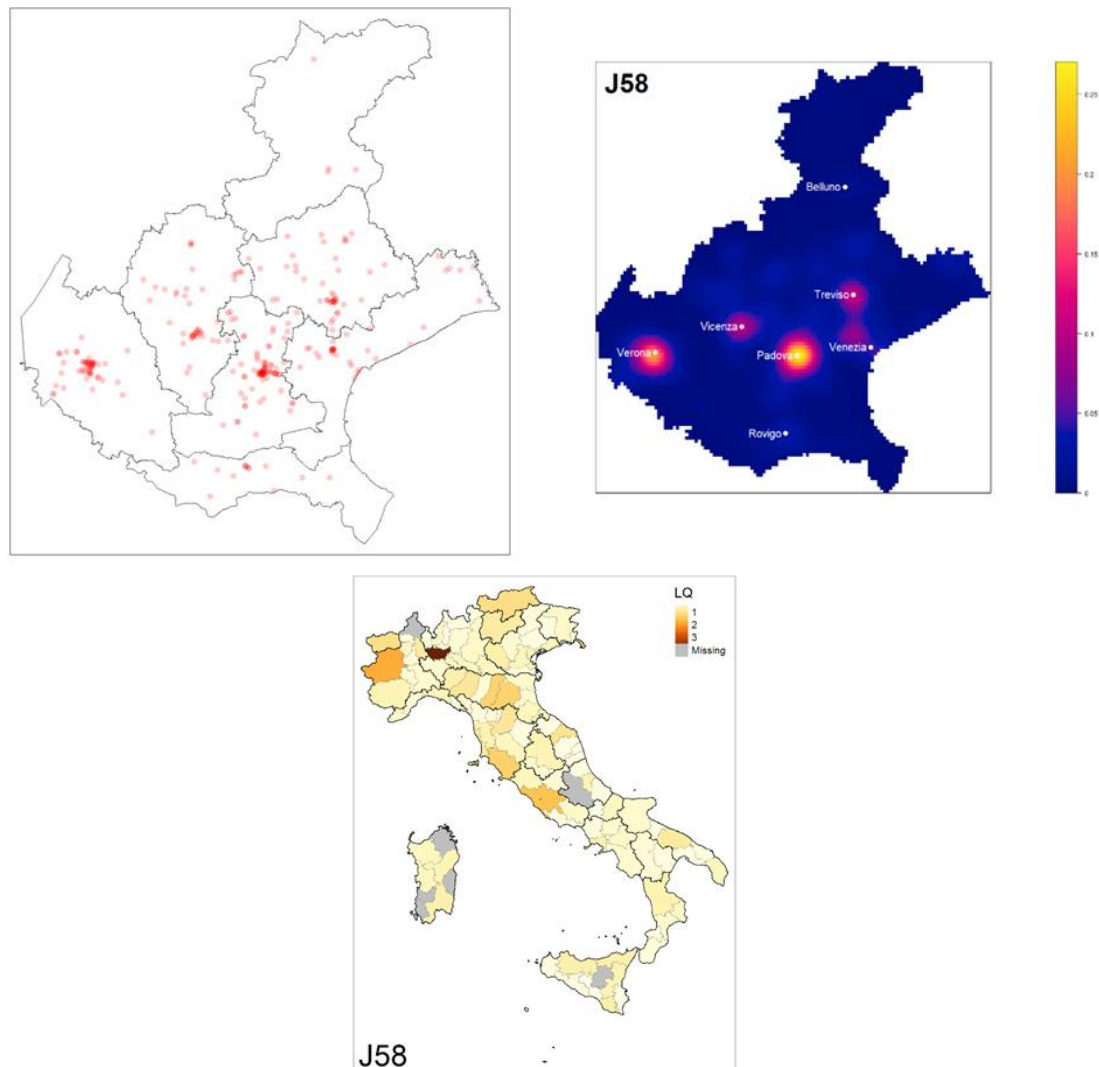
Figure 7. Recorded media: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

As in the case of recorded media, the spatial distribution of publishing is centred about the two main cities of Verona and Padua, but now in reverse order: Padua first, then Verona, followed by the other main cities in the second tier (Figure 8). The outstanding role of Padua may also be due to the fact that the city hosts the largest university in the region, which clearly contributes substantially to the development of the publishing sector. In both sectors, the role of Venice is rather marginal, showing how the strong specialisation in the fields of heritage and the arts does not necessary follow a specialisation in related content industries. This may also be seen as a weakness of Venice in positioning itself over a broad spectrum of the content industry by suitably leveraging upon its brand value in the field. At the national level, Milan is the leader, being the cradle of the Italian publishing industry, and secondarily Turin, with Bologna and Rome in the third tier. As a reminder, location quotients reflect relative specialisation and not absolute size, although in the case of Milan both are true. In the publishing industry, despite the strong urban polarization, Veneto does not show any strong pattern of relative specialisation at the national scale.

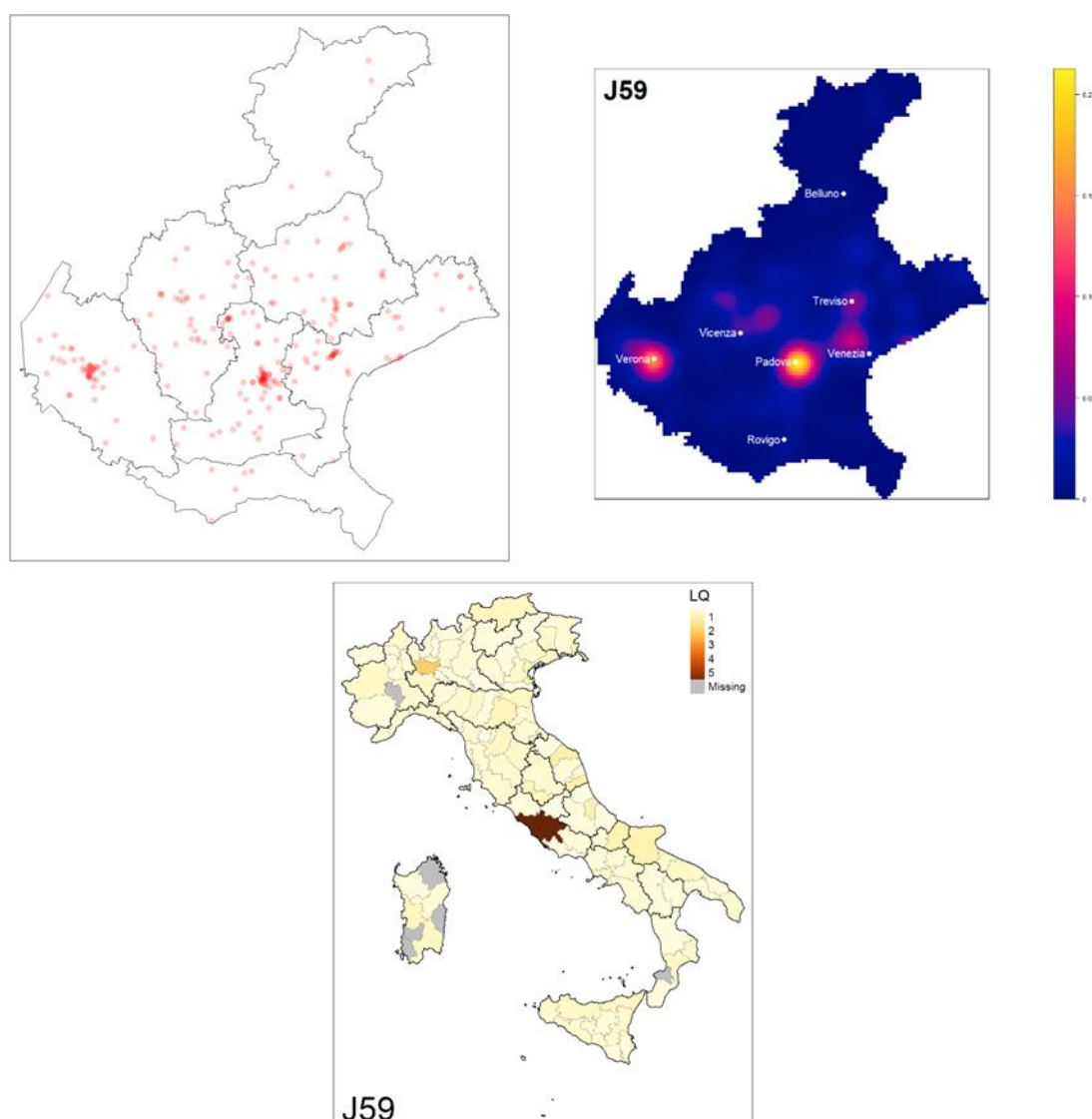
Figure 8. Publishing: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

Another sector that falls squarely in the cultural and creative sphere is film, music and video production, which displays similar patterns as publishing (Figure 9). Padua is the leading regional centre and Verona is the second. At the national scale, not surprisingly for these fields of cultural production, the most specialised area is Rome, followed by Milan. Veneto does not show a significant relative specialisation profile at the national level.

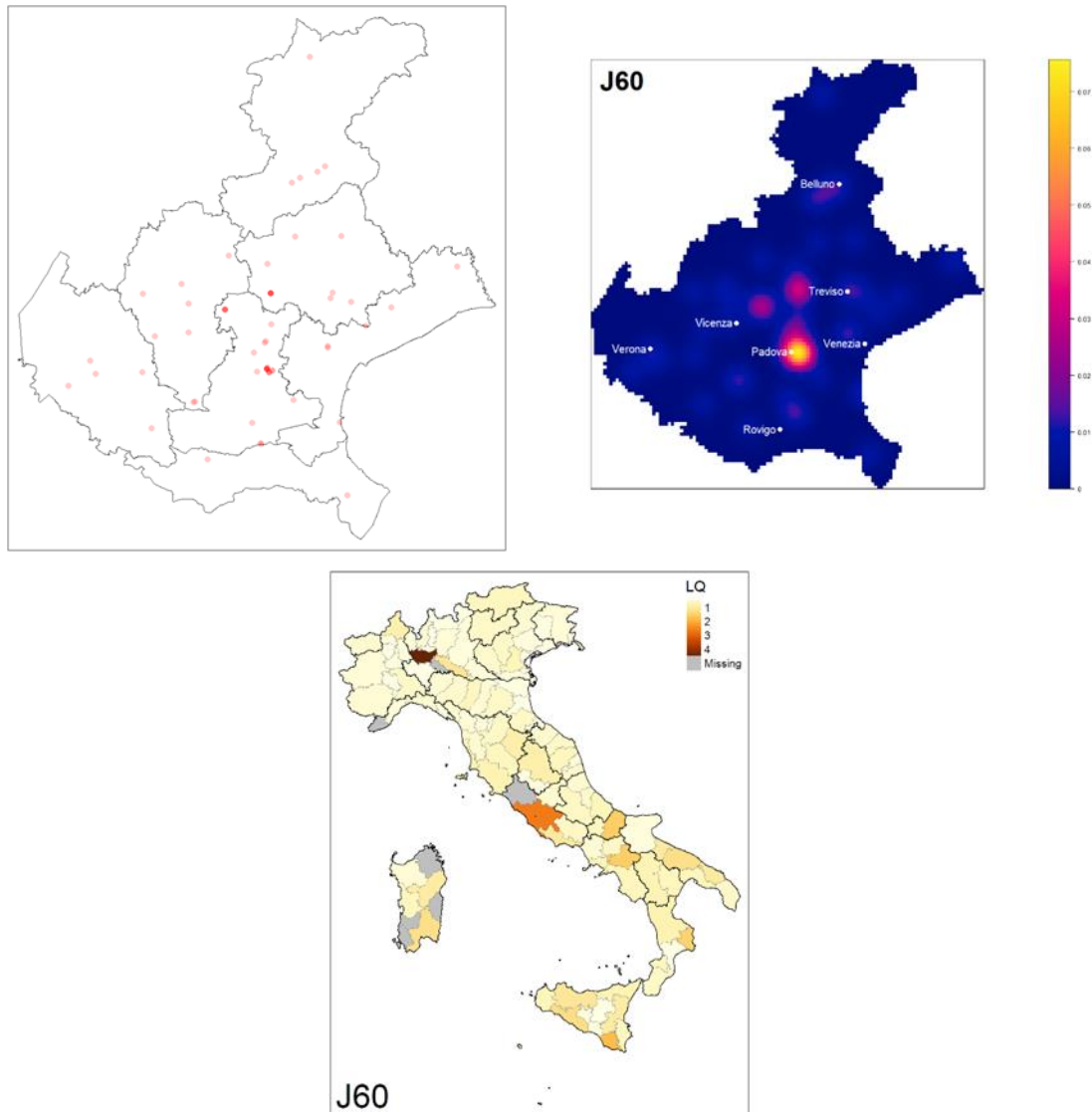
Figure 9. Film, music and video production: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

Directly connected to audio-visual production is broadcasting, where Padua has an essentially dominant position at the regional scale (Figure 10). There is an absence of other major hubs in the sector (the few minor hubs gravitate however around Padua). At the national scale, the hierarchy is now inverted, with Milan having stronger relative specialisation and Rome as the second tier. Also at the national level, there are several provinces with a comparatively high degree of relative specialisation in broadcasting due to the proliferation of local TV and radio channels and the relative weakness of other local productive sectors.

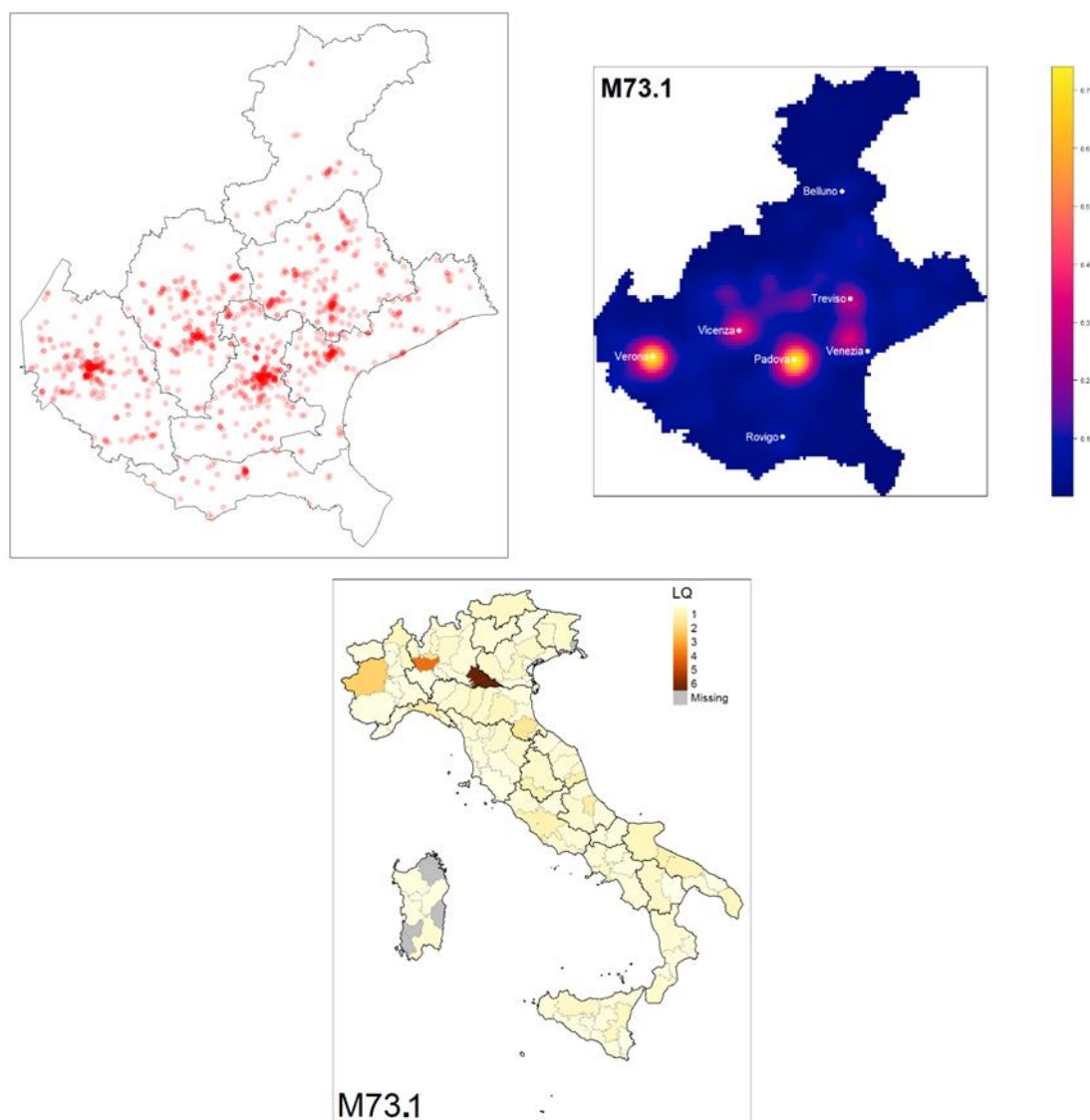
Figure 10. Broadcasting: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

The other sector of major relevance for the industrially organised creative economy is advertising, again with a bipolar distribution in the main hubs of Verona and Padua (Figure 11). Vicenza, Treviso and Mestre are in the second tier. Once again, there is a substantially urban distribution; although less sharply concentrated than in other cultural and creative sectors. At the national level, Veneto does not present significant levels of relative specialisation. The most specialised province in this sector is Mantua, a somewhat unexpected result, followed by Milan and Turin.

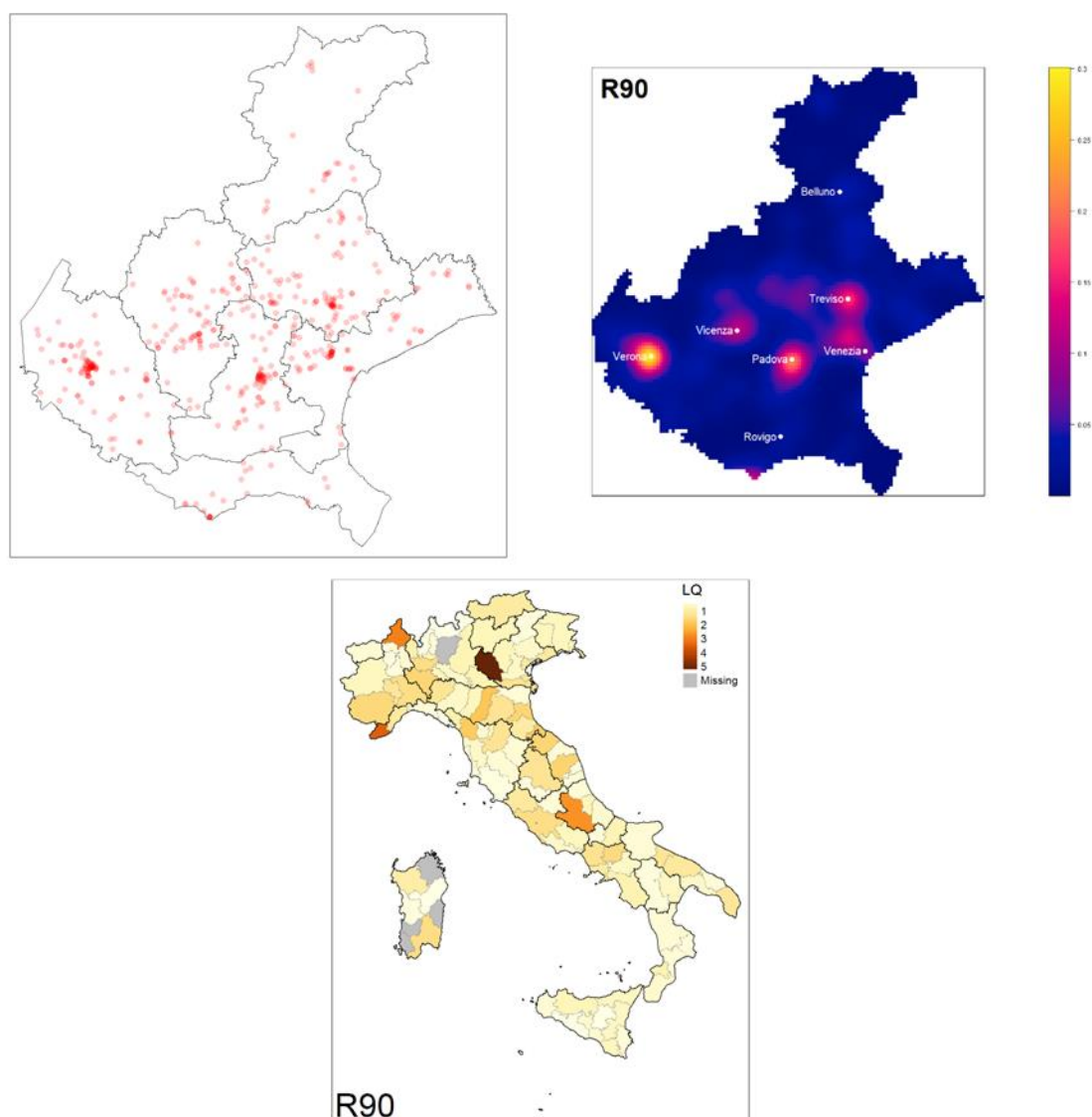
Figure 11. Advertising: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

The next set of figures are for activities more directly related to the core of cultural and creative production. The first concerns artistic, creative and entertainment activities (Figure 12). In this case, not only is Verona the premier hub at a regional level, but it is also the most relatively specialised province in Italy. Although Padua is in the second tier, the distance with the other major cities is narrower, as Treviso, Mestre and Vicenza are also close. Unlike the industrial sectors, the urban character of the spatial distribution is less pronounced, as understandably events and entertainment activities are also conveniently staged in smaller centres. Local providers have enough market edge to be able to locate outside the main centres. At the national scale, other relatively specialised provinces are those without a strong industrial profile, such as Verbano-Cusio-Ossola, Imperia and L'Aquila.

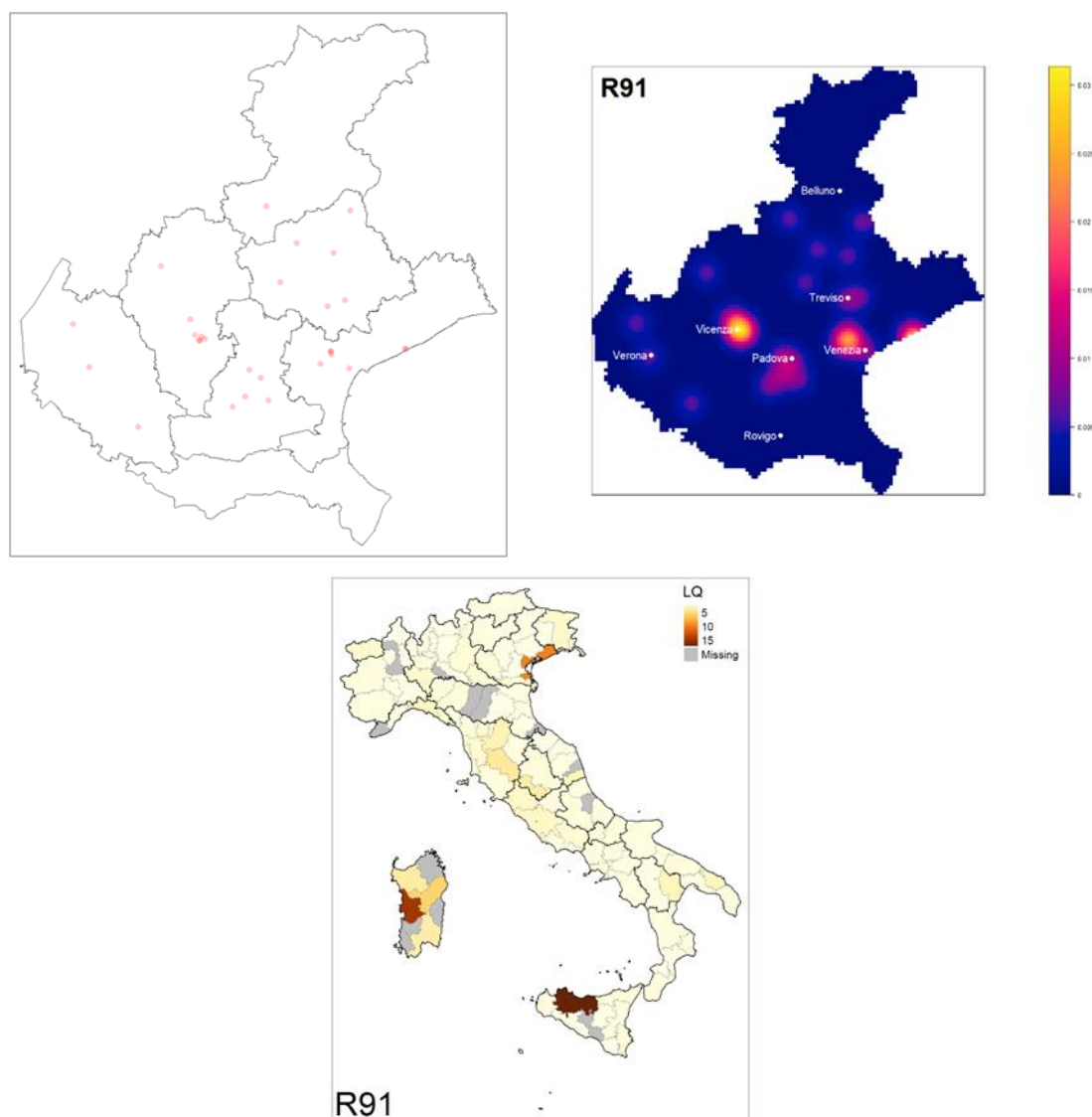
Figure 12. Artistic, creative and entertainment activities: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

The less industrially organised part of the cultural core (libraries, museums, archives and other cultural activities) is mapped in Figure 13. In this case, public institutions are not counted given that the data source is for firms, therefore only private organisations appear. Vicenza has a leadership role within the region, with Venice in the second tier, followed by Padua and Treviso in the third tier. At the national level, Palermo is the most relatively specialised province but Venice is, again, unsurprisingly among the most relatively specialised at the national level.

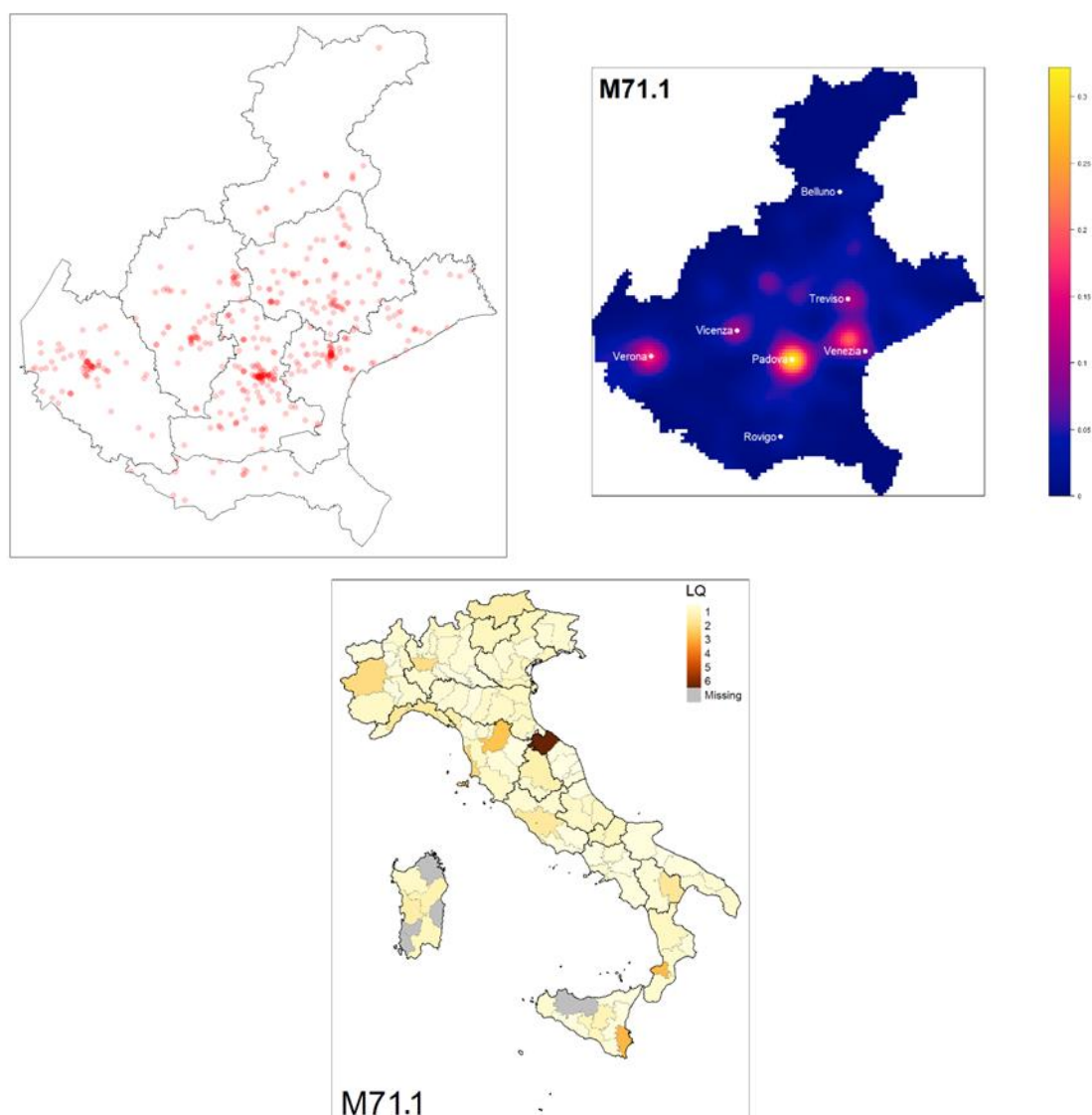
Figure 13. Libraries, museums, archives and other cultural activities: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

Architecture and engineering is a sector in the services sphere that presents significant overlaps between cultural and creative professions and non-cultural ones (Figure 14). In the field of architecture and engineering, Padua is the main regional hub, followed by Verona and then the other main cities as a third tier. Here too, the spatial distribution is not limited to cities because for architecture and engineering services, local markets are large enough to motivate firms to locate in smaller centres as well. There are minor hubs in the upper provinces of Vicenza and Treviso, around Bassano and Castelfranco. Veneto provinces do not present relevant levels of relative specialisation. Here the leading Italian province is Pesaro, joined also by major Italian metropolitan areas such as Milan, Turin, Florence and Rome, together with some smaller provinces.

Figure 14. Architecture and engineering: spatial distribution and sectoral density in Veneto, and location quotient within Italy

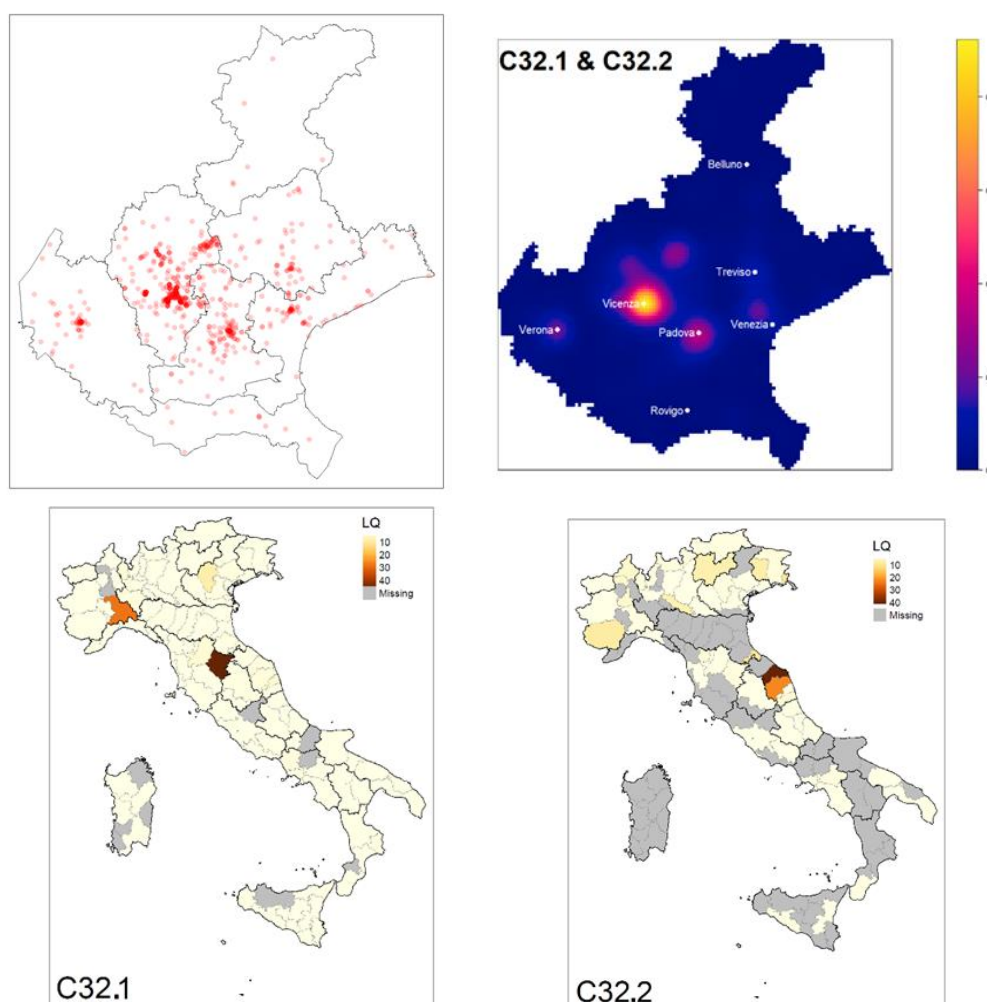


Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

Finally, there are two highly specialised sectors where the cultural content is paramount but which also present a very significant manufacturing component, namely jewellery and musical instruments. In the case of Veneto, as the production of musical instruments is not particularly developed, the joint mapping covers both subsectors but essentially refers to jewellery. The joint spatial distribution is shown in Figure 15, and the location quotients for the two subsectors are presented separately.

In the case of jewellery, it is well known that **Vicenza is one of the main Italian production hubs, and this clearly shows in the regional distribution of activity.** At the national level, however, Vicenza shows a smaller level of relative specialisation with respect to the other Italian major jewellery production centres, namely Arezzo in Tuscany and Valenza Po in the province of Alessandria (Piedmont), due to the highly rich and diverse co-location of different productions. For musical instruments, the highly specialised areas are the Marche provinces of Ancona (Osimo) and Macerata (Castelfidardo).

Figure 15. Jewellery and musical instruments: spatial distribution and sectoral density in Veneto, and location quotient within Italy



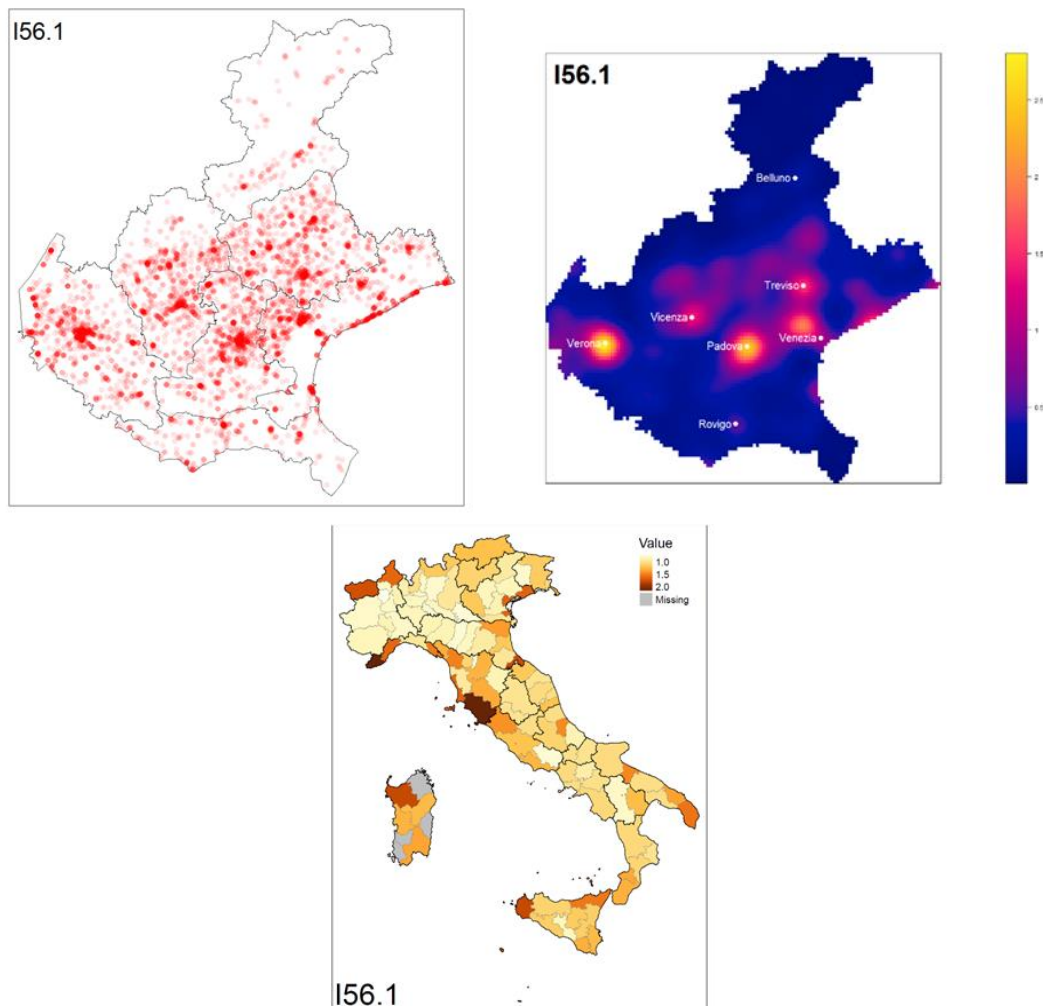
Note: The bottom left figure is jewellery, and the bottom right figure is musical instruments.

Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

Finally, another sector with an interesting overlap between cultural and creative sectors and non-cultural ones is that of restaurants (Figure 16). There is a statistically inextricable coexistence of conventional restaurants, cafes and eateries, and more sophisticated business that provide food experiences with a very high component of food and environmental design, quality of ingredients, and so on.

In the case of restaurants, as expected, there is a sparse distribution across the whole regional territory, with urban hubs especially in Verona and Padua, and secondarily in Venice and Treviso. Verona and Padua are also locations of some of Italy's top rated restaurants, which at least in part reflects this observed distribution, also in terms of the specific businesses that more strictly pertain to the cultural and creative sector. In terms of location quotient, Venice has a high relative concentration, a clear reflection of the high incidence of the tourism industry on the local profile of economic specialisation, but also Verona presents a significant value. The strongest specialisation at the Italian level is found in the tourism-intensive provinces of Imperia in Liguria and Grosseto in Tuscany, but significant concentration values are scattered throughout the Italian territory.

Figure 16. Restaurants: spatial distribution and sectoral density in Veneto, and location quotient within Italy



Source: The territorial distribution of activities and the density maps are based on the ORBIS database from 2014 data. Location quotients are based on ISTAT 2017 data.

Examples of innovative crossovers and repurposing of cultural and creative production in Veneto

In spite of these structural weaknesses, the region presents some interesting cases of innovative practices in cultural and creative fields. These examples are often difficult to classify but highly unique in their relation to elements of the local culture. This section briefly considers a few examples that could be useful in imagining possible future experimentations. In particular, such examples should not be regarded as fully-fledged case studies, but rather as interesting illustrations of some innovative principles that reflect an emerging, yet still not fully recognised, potential for a new wave of cultural and creative specialisation in Veneto.

Transforming organisational models and value chains: Bonotto's slow factory paradigm

Bonotto³³ is a company based in Molvena, a small town in the hills over Vicenza, specialised in high quality textiles. It operates in the BtoB market, mainly serving the high-end fashion industry. Today, Bonotto is positioned as one of the top players in its particular market niche, and has many of the most globally renowned fashion brands among its clients. It develops exclusive fabrics for clients through a very careful selection of rare textile materials, whose production and collection always respects very stringent standards of environmental sustainability and absence of animal cruelty. In 2016, Bonotto was acquired by the Zegna group, one of Italy's top textile companies, leaving creative development in the hands of the original owners, the brothers Giovanni and Lorenzo Bonotto, who took over the company from their father Luigi.

Bonotto is clearly a success story of a company which rescued itself from the generalized crisis that hit the Italian textile sector hard. The full globalisation of the textile markets and the flood of cheap textile products from the Far East had forced most Italian textile producers to close or to dramatically restructure themselves. The driver behind such restructuring has generally been an urge to keep production costs down mainly through the introduction of labour-saving innovation to minimize the effect of labour cost differentials. This led to the massive introduction of technologically sophisticated machinery and a major effort towards higher efficiency and productivity. In the case of Bonotto, a typical medium firm of the Veneto production geography analysed above, the globalisation shock represented a real threat to the future viability of the company.

However, there was an element in the corporate history of Bonotto which has, retrospectively and quite unexpectedly, made the difference—a passion for art. The firm has a long tradition of art collecting, and specifically of collecting a very specialised and sophisticated form of contemporary art, that of the Fluxus movement, one of the most radical and innovative art movements of the 20th century. This singular characteristic was due to founder Luigi Bonotto's passion for art collecting, which led him to transform the factory premises into a haven of Fluxus artists. Thanks to their constant presence, the firm amassed a large

³³ For more information, see <http://bonotto.biz>.

collection of Fluxus artworks. It is today one of the biggest in the world, and such works are regularly loaned and featured in virtually all Fluxus exhibitions around the world, including those in top museums and Biennials.

The deep immersion in this Fluxus-informed environment and imagination deeply influenced Luigi's sons when they took over the company at the time of a deep crisis. Their choice when making several important decisions has been quite counterintuitive and deeply original: they took up the perspective of a Fluxus artist in deciding the company's new strategic direction. This occurred at a time when firm closure was a real possibility. They decided to revolutionize the company's business model by going against the common trend taken by their competitors. Rather than speeding up production and going for higher efficiency, they decided to slow down the process and to buy old, antiquated machinery to experiment with a new philosophy of value, one where the human touch and imperfections that were characteristic of obsolete technology could become the hallmark of the company's value proposition.

This led to the launch of what could be thought of as a brand new organisational paradigm: that of the "slow factory". At first, this choice perplexed company workers. However, once the actual experimentation started, including also exploring fancy ways of "creatively sabotaging" the old machines to create new, peculiar fabrics through the interplay of craft and randomness (an entirely consequential Fluxus attitude), the employees quickly bought in to the idea. They enthusiastically started to experiment and to capitalize on their own deep knowledge of the productive techniques in imagining new creative variations. This model has now become the pillar of the company's new growth cycle, which has been by far the most successful in the company's history. It led to the acquisition by Zegna and has now firmly positioned Bonotto as a top global player in its niche.

Bonotto's example shows that even mature manufacturing sectors such as textiles can be entirely rejuvenated and repositioned. They can do so in a much more profitable market niche through the smart, innovative deployment of cultural and creative dimensions. This is often most effective when such a vision is deeply rooted in the entrepreneur's personal background and vision.

Lino's and Co: exploring new cultural crossovers between craftsmanship and digital culture

Lino's and Co⁴ is a small but very dynamic company which currently has three branches in three different Italian cities: Verona, Genoa, and Udine. Lino's is many things at the same time. It is an online shop with a selected number of showcase corners in carefully chosen retail facilities for their paper-based home design products. It is also a marketing agency, with a strong specialisation in innovative business models. It also possesses a small network of co-working spaces in the three company locations, hosting a number of events and courses focusing upon innovation and visual communication. Finally, it is a laboratory for typographic printing and book binding, and has a digitally powered FabLab. This combination of functions might look entirely erratic at first sight, but in fact it encapsulates a powerful vision, namely the idea that today certain aspects of physical and digital manufacturing can be combined in very powerful and unexpected ways, and all the more so when staged in an environment which is open to the cross-fertilisation of many, diverse creative talents that propose different projects and initiatives. This is the reason why the company's production space is at the same time a co-working space and a FabLab: to facilitate exchange and sharing of ideas.

The company is clearly atypical, and simultaneously capitalizes on different specialisations that are strongly represented in Veneto. This includes manufacturing, and printmaking in particular, where Verona stands as the most specialised regional hub with national importance, as well as marketing and communication, which is today one of the main pillars of the emerging innovation trends in the local production geography, even when assessed at a European scale. At the same time, Lino's is also a space for creative collaborations, which have been so far one of the weakest points of the regional productive model, where Veneto fares poorly compared to European standards. The root of the company's value proposition is an

⁴ For more information, see <http://lisonandco.com>.

innovative combination of artisanal craftsmanship and digital culture. Accordingly, their branches are neither retail shops nor factories, but a fascinating mix between the workshop and the boutique. Lino's and Co has already received the support of TIM Foundation, one of Italy's largest company foundations with a strong focus on innovation and on emerging start-ups.

The example of Lino's and Co illustrates how cultural and creative production is today very much about the creative recombination of existing elements into new solutions and products. Such combinations build on local assets and areas of excellence but also address some of the deeply-rooted cultural limitations through new models.

Lago: how design thinking revolutionises traditional manufacturing

Furniture making is one of the cornerstones of Veneto manufacturing. Lago is a furniture maker located in Villa del Conte, a small town in the upper province of Padua. It has radically taken up the challenge of revolutionising the traditional world of Veneto furniture making through design thinking. Lago is a form of pilot-innovation experiment that reflects the wider regional trend for a stronger positioning based on aesthetic and brand development elements. At the same time, Lago is a classic example of a deeply-rooted manufacturer in Veneto with a long family tradition, which dates back in its earliest forms to the nineteenth century. The strategic turn arrives in the mid-2000s, when the fourth generation of family entrepreneurs takes over and seeks to expand the international market. The company's main tenets are an innovative, modular approach to the interior design of all kinds of human environments, an innovative approach to communication, and an early adoption of a strong digital presence. Today, Lago sells in more than 20 countries worldwide through more than 900 stores, several of which are single brand. It not only provides high-end furniture, but if required, also develops the whole interior design project for the end client.

High-end furniture design is a difficult and very competitive market. Lago has chosen to enter this market through close collaboration with internationally recognised and emerging designers, and with a clear focus on innovation. It developed an original concept for its factory and headquarters Lago Campus, a creative village which hosts, together with the factory and the warehouse, a canteen and a garden. That is, the production premises have been embedded in a human-centric organisational environment which invites the visitor, be it a business client or partner, to filter the perception of the company's production process through an aesthetic lens. Lago's corporate communications emphasizes how the historical memory of the territory carries the traces of eminent artists such as Giotto, Palladio, Titian, Tiepolo, and Canova. In other words, it capitalizes upon the regional cultural heritage as a distinctive feature of the company's value proposition, which reinforces its design thinking orientation by embedding it in the noblest possible historical ascendancy. This orientation reflects the strong statement of the company's value philosophy in terms of human-centric design.

The company's modular approach to design is allowing the development of increasingly innovative interior design concepts and is winning international acclaim. Lago's example shows how a deep change in the organisational culture and strategic vision of traditional manufacturing, coupled with a meaningful connection to Veneto's cultural assets, may quickly create international innovation leaders out of small family companies whose factories lie away from the main urban centres.

Grafiche Antiga: the value of heritage as a repository for innovation and creativity

Grafiche Antiga is a printing company located in Cornuda, a small town in the province of Treviso. The company is one of the region's biggest printing companies, and covers the full spectrum of printing services: pre-printing, printing, binding, logistics, digital print, as well as graphic design, shop-window design and installation, digital rendering, online communication, and now even augmented reality web applications. Grafiche Antiga serves a high-profile portfolio of national clients interested in high quality printing services, including top manufacturing, fashion, and design brands, as well as museums and communication agencies.

This makes Grafiche Antiga a business leader in an important sector of cultural and creative production, but the truly distinguishing feature that makes the company an example to study is the Tipoteca Italiana project.

Tipoteca Italiana is a museum of printing techniques and practices, hosted in a specifically purposed building in the area of the company's headquarters, and has gradually grown to become an internationally renowned institution in its field. Every year, guest designers and typographers are invited to give workshops, and to develop print design projects making use of unique, original vintage machinery duly restored by the museum and kept perfectly functioning. The museum is therefore not just a refined repository of ancient machines and print fonts and moulds, but a workshop which is continually enlivened by the creative presence of a culturally diverse selection of high-profile specialists from all over the world. In this way, Grafiche Antiga reaffirms the core spirit of Italian design, centred on aesthetic research and creative exchange. It makes the museum a key driver of the company's innovation policy.

What makes the project especially interesting is the central role assigned to heritage as an active repository that constantly inspires new ideas and projects. The collection is regularly expanded through acquisition of new materials and items from all over the world. The museum also carries out an active educational activity, with the continual presence of visiting schools and the ensuing opportunity of introducing young students to the fascinating art of printmaking, with a potential vocational function. The museum also contains an auditorium with 150 seats and a restaurant, turning the factory into a social hub for the local and regional cultural scene.

Grafiche Antiga's example shows how heritage should not be considered simply something to preserve, but can be brilliantly integrated into the innovation cycle of cultural and creative production. Such efforts have also opened the company to the possibility of providing educational services and become an attractive destination for creative professionals from all over the world. The company cleverly exploits the amenity of the Veneto countryside and the appeal of regional food culture to foster social networks, which benefits both the neighbouring territory and the company employees themselves. This case also illustrates how a traditional instance of a Veneto manufacturing firm can evolve into an innovation leader which develops and presides over its own market niche.

Conclusions

The main features of Veneto's regional geography of cultural and creative production

In Veneto, cultural and creative production tends to be strongly associated with cities, although to varying degrees according to sectors. Certain sectors, such as film, music and video production, and broadcasting, are almost exclusively urban. In others, more related to manufacturing or local services such as wearing apparel, textiles and leather, or advertising and architectural design, the distribution is more widespread across the territory.

The two main cultural and creative production hubs at the regional scale are Verona and Padua. Verona is more specialised in events and entertainment, and recorded media, with Padua leading in sectors like publishing, architectural design, film, music and video production, and broadcasting. For other specific sectors such as jewellery and leather goods, Vicenza is more specialised.

Leather goods is an example of the kind of sector that has important overlaps with more traditional manufacturing production. In this case, the spatial distribution tends to be less urban-centric and, at times, is focused on minor urban centres.

Venice, which has a world-class concentration of top-tier cultural institutions, is relatively weak as to the concentration of cultural and creative production activities. It is a global stage for showcasing creative excellence rather than a production hub itself. Annex 3 presents data on cultural event production in Venice in the pre-pandemic period.

This picture reflects some of the well-known characteristics of Veneto's economic geography. This includes the region's multi-polar nature, organised around a network of main centres rather than around a large, single regional hub. It is also characterized by the presence of some highly specialised hubs, of which one, Verona, has a top relative specialisation at the national level in the field of events and entertainment. It also highlights the relative fragmentation of the regional cultural and creative ecosystem, which at the moment doesn't enable Veneto to compare as favourably with other highly industrialized Italian regions such as Lombardy, Piedmont and Lazio.

Cultural and creative industries could be an important innovation driver in the current regional competitive model due to its focus on design, marketing and brand development. The almost complete prevalence of small and very small firms could be a challenge for a major innovation leap at the regional scale. The multi-polar character of the region's cultural geography could in principle be a strength, building on the complementary dualism between Verona and Padua. However, the missing element is clearly Venice, which seems to have almost abandoned a potential productive orientation in such sectors as a consequence of the increasing focus on tourism and related value chains, and view of positioning itself as a global stage for cultural and creative content produced elsewhere rather than as a production hub in itself (Ferilli et al, 2015).

Given the substantial setback to the tourism industry due to the pandemic crisis and the uncertainty on the timing and scale of its recovery, now is the perfect opportunity for Venice to diversify towards an innovative investment in culture and creative production. Venice could capitalize on the city's global

brand, which has currently been poorly exploited in this regard. Venice could also be a motor for other major regional hubs, which, at the moment are not able to position themselves strongly on the national scene, let alone the European one. Another untapped opportunity is the possibility to attract global cultural and creative professionals thanks to the widespread use of teleworking in the post-pandemic context. Workers increasingly have the freedom to choose a place to live that is no longer based only on job proximity, but rather on the basis of amenities and quality of life – a dimension where Venice, and several parts of Veneto more generally, could be quite attractive by global standards.

Such a strategic reorientation would require a stronger public policy initiative, private sector business leadership and vision, and much closer collaboration between the two sectors. Without these changes, there seems to be little chance that Veneto is going to improve its current position as a moderate innovator on the European scale. Despite its strong identification with world-class heritage assets and its current orientation towards boosting the aesthetic and branding dimensions of its innovation model, the region has not been able to fully capitalize on this promising potential.

Opportunities for policy action

Cultural and creative production can become an important lever to help reboot the Veneto economy for the new growth cycle after the pandemic shock ends. The region has a rich and diversified geography of production, with a multipolar organisation around a few main urban centres but also a significant presence of firms in smaller centres, especially for sectors with a strong manufacturing component. However, to fully capitalize on the upcoming opportunities such as those related to the use of European recovery funds, European cohesion policy funds and the new wave of European programmes, a few complementary issues need to be addressed.

Skills upgrading and new professions are needed for cultural and creative sectors

A first issue is the region's relatively low level of educational qualification. The region still relies on its traditional model characterized by early transition into the job market, with a relatively low number of students reaching tertiary education level as compared with European standards and more specifically with socio-economically developed regions. Successful regional examples of strategic development often have to do, in various ways, with a clear shift to a knowledge-intensive economy.

The region's firms are making a considerable investment in strengthening branding and marketing strategies, and in the re-orientation towards a more refined culture of design and product aesthetics. However, such an evolution inevitably requires the development of specialised professionals with skills that cannot be acquired exclusively on the job, but demand high quality specialist training in strong communication and design schools. More generally, it requires a corporate culture orientated towards lifelong learning and openness to cultural, technological and social innovation. These attitudes are not entirely natural for the typical, family-owned and managed Veneto SME, but this leap forward is necessary to consistently pursue the innovation trajectory and the competitive strategy that the regional production system seems to be pursuing.

Venice can play a critical role in boosting cultural and creative production throughout Veneto

By diversifying Venice more towards cultural and creative production, the entire region's industrial structure would benefit. While the city is a major global hub for cultural events, the almost exclusive specialisation in the pre-pandemic phase on the tourism and events economy, and its relative weakness in the spheres of cultural and creative production, is a missed opportunity for the city and the wider Veneto region. The multi-polar urban system mainly centred about Verona and Padua, with Venice itself, Vicenza and Treviso as second-tier cities and Belluno and Rovigo as third-tier ones, would all benefit from such a strategy for Venice. It would help all cities better capitalise on the potential of a region with one of the finest, richest

and more diverse cultural heritages of Italy, and with a high-quality artisanal and manufacturing tradition that, in its best examples, can quickly escalate to positions of international and even global excellence.

Venice is a magnet for artistic and creative talent, but such attraction, which is still mainly linked to the economy of cultural events, has not significantly spilled over to the productive cultural and creative sectors. Such a shift could ignite important innovative practices and help fuel the strategic repurposing of many local economies. At the same time, Venice could further specialize its attraction capacity as a city-wide residential hub for cultural and creative professionals and artists which could at least, in part substitute for the loss of tourists, with overall a much better impact on the local environment, and with the potential of rejuvenating the city's decaying social fabric.

This new regional approach would require a coordinated effort from public and private players in shaping a region-wide cultural and creative ecosystem. Each of the main cities takes a specialised role that further reinforces the ongoing tendencies, and which helps minor urban areas to proceed with the transition to more competitive and innovative forms of creative production, following the lead of the most successful cases.

Veneto needs to upgrade its digital proficiency

At the moment, regional SMEs only make basic use of digital tools. As shown by Burtinza et al (2018), from a sample of small- and medium-sized manufacturing enterprises, only 32% of Veneto firms had adopted digitally integrated solutions, and adoption was closely related to a firm's internal level of resources and competences. There is a gap between an advanced fringe of digital innovation leaders and a large number of small firms lagging behind. Too little attention is paid to the digital innovation frontier and the deployment of such innovations in all aspects of corporate organisation, and specifically, in such crucial areas as training, design, communication and branding, to name a few examples. Virtual and augmented reality, the internet of things, and artificial intelligence are going to revolutionize many areas of human living and activity in the next few years (Ödzemir and Hekim, 2018). While larger and more globalized regional companies are exploring these opportunities, it still remains a remote reality for so many SMEs, which still operate in fields that are strongly exposed to the effect of these kind of innovations, and this is certainly true for all fields of cultural and creative production.

Seizing the moment while rebuilding post-COVID

It is clear that Veneto has the potential to play its part in the cultural and creative markets of the future and change its development model during this window of opportunity in the post-COVID recovery. To tap into the opportunities, the region needs to be open to change, to invest, and to experiment, and that even family companies need to embrace these new perspectives. Cultural and creative production may give a substantial contribution in this regard.

There are also concerns about the environmental sustainability of the Veneto industrial model. This model has been very aggressive on the environment (Varotto and Visentin, 2008). The entire Po Valley, around which all Northern Italian regions including Veneto are located, is among the most polluted areas in Europe (ARPA, 2020). Moreover, industrial expansion has had a huge impact on the region's environment during the growth cycle started in the 1970s (Turri, 1995), leading to ecologically and socially threatening forms of urban sprawl (Fregolent and Vettoretto, 2017). It is significant that the recent bid by Pieve di Soligo to be the Italian Capital of Culture for 2022, a small town in the province of Treviso sitting in one of the most heavily industrialized areas of the region, was mainly focused on the removal and reconversion of abandoned industrial facilities. It is seeking to rejuvenate the regional territory through a new interest in landscape and environmental protection as a basis for new economic value chains (Benincà, 2021).

Cultural and creative production more generally play a major role as key signifiers of this renewed 'beautification' of the Veneto territory. It can support the region's positioning as an attractive investment as well as a residential and touristic destination based on amenities and quality of life (Bitsani and Kavoura,

2012). Another telling example is the recent recognition of the Prosecco hills of Valdobbiadene and Conegliano, one of Europe's major wine areas, as UNESCO World Heritage Sites – an accolade that also represents a clear commitment towards promotion of environmental quality and landscape aesthetics. This is, an initial driver of a possible post-pandemic recovery strategy for the region.

A second opportunity in the post-COVID rebuilding phase is related to the role of the digital as an overarching platform for a closer integration between education, cultural participation, corporate culture, and smart territorial governance. The relatively low educational levels of the region have been one of the major obstacles to the successful adaptation of some of the Veneto industrial districts to the new competitive scenario of the last two decades. However, one of the effects of the pandemic crisis has been an unprecedented push towards the development of new digitally mediated solutions that have crossed through all aspects of daily living, from education to access to public services, from access to museums (Raimo et al, 2021) and cultural facilities (Tammaro, 2020), to the development of new, flexible forms of smart teleworking (Loré and Frey, 2020). This unplanned change naturally paves the way to further developments that may enable the Veneto region to accelerate its transition towards a knowledge-intensive economy and society (Belussi, 1999). Even the relatively less innovative parts of the regional production system have learnt that flexibility and adaptability are key to survival. Given such exceptional conditions, they could be willing to embrace changes that would have not been regarded as viable in the “old normal” conditions.”

Therefore, at the start of a new cycle of EU structural fund programming, the region could seize this opportunity to make the post-pandemic digital transition one of its key objectives of long-term structural change. Once again, cultural and creative production may play a key role in this transition, as the sector has traditionally been one where innovative technological solutions have been often developed and tested. As seen in the case studies above, there are already interesting cases in the region of manufacturing companies that have capitalized upon their strong interest in culture as a level for competitiveness-driven transformational change.

A third key issue is the evolution of the current polycentric territorial model (Governa and Salone, 2005). The absence of a large, dominating urban hub and the consequent polycentric structure leading to the competition between several main cities, with each positioning itself as a little ‘regional capital’ of its own, has been certainly beneficial to some extent in terms of competitive drive, but has also prevented the emergence of a truly cohesive regional developmental model (Carboni and Orazi, 2021). The most apparent weakness is the failure of integration, with the result that Venice functions as a globally attractive hub for high-end cultural events but does not function as a real gateway for the entire regional economy. The critical passage is moving from a local development model focused on manufacturing exports to a wider, and much more demanding vision of a territory, pursuing at the same time radical innovation, cultural cosmopolitanism, and inclusion. This transition is particularly urgent in view of the region's ongoing shift towards forms of innovation and competitiveness that build upon high-end marketing and branding.

The crisis of the traditional tourism industry in Venice provides an unprecedented (and possibly once-in-a-lifetime) window of opportunity to rethink Venice as a global hub for cultural and creative production that is strongly integrated with the whole regional manufacturing system. The city can function as an attractor of talent and as an innovation accelerator that facilitates the transformation of the former model into an increasingly knowledge- and design-intensive regional development model. This is not to say that tourism should not play a major role in the new growth cycle for Venice and the whole region, but rather that tourism itself could move from traditional, environmentally impactful forms of massive physical over tourism (Seraphin, Sheeran and Pilato, 2018) to more sophisticated models which make an innovative use of digital technologies and establish important strategic complementarities with cultural and creative sectors (Sacco, 2012). The rethinking of a local economy in light of COVID-19 impacts is an opportunity for a massive makeover. This requires a clear strategy, a compelling schedule of policy actions, and a joint commitment of all major regional stakeholders to tap into the opportunity through an unprecedented level of cooperation.

Annex 1: Defining cultural and creative sectors

A refined definition of cultural and creative sectors is often a challenge due to data constraints. The problem of an adequate statistical classification of cultural and creative sectors is common to all countries. The Italian statistical system for the classification of productive sectors is based upon the so-called ATECO codes. Even accounting for the intrinsic classification difficulties with cultural and creative production, such coding is not particularly well-suited to capture its peculiarities (Lazzaretti and Capone, 2015). For instance, sectors such as furniture production and their specific codes gather in the same category as furniture companies that produce very traditional wooden home furniture with low value added in terms of design quality, as well as cutting-edge companies that produce high-tech home furnishings with innovative design. In an ideal classification system, the first kind of company is essentially a manufacturing company, whereas the latter is essentially a design company with a vertically integrated manufacturing unit, but in practice it is very difficult to distinguish the two. Examples like these abound in other sectors that are well represented in the regional economy, such as textiles/fashion, or food/“industry of taste”, to name a few.

The classification of cultural and creative businesses is further complicated by the fact that at a conceptual level, to date there is not a commonly shared definition of such sectors that apply to all cultural and creative economies and their statistical systems worldwide. As a general rule, one can distinguish several types of cultural and creative sectors. There are some that are only partially exposed to the market and are often *not* characterized by an industrial organisation, such as the visual arts, the performing arts, and the museums, heritage and archives sectors. There are sectors which are industrially organised and are generally considered as the main cultural industries, such as radio-television, publishing, the music industry, cinema, and the videogames industry, plus the rapidly emerging industry of virtual reality. There are also creative sectors with a strong manufacturing edge such as product design, fashion design, architectural design, and the industry of taste, as well as other kinds of creative sectors that focus on intangible services such as advertising and communication. Finally, there are the new digital sectors whose analytical mapping is very complicated as they are still rapidly evolving so that any classification system that is envisioned beyond the generic definition of “digital platforms” quickly becomes obsolete. Beyond this core definition of cultural and creative production, there are a number of sectors that partially overlap with the former or are complementary to them, such as parts of the computer hardware and software industries, the hospitality industry, and the educational system. Moreover, many forms of manufacturing tend to overlap with one or more of the above sectors, and especially design-intensive ones.

Data used in the paper to identify the location of firms in the culture and creative sector refer to the Eurostat NACE classification of productive sectors. It partly suffers from the same problems already highlighted for the Italian ATECO codes, but at least allows some international comparisons for future reference. In particular, as shown in Annex Table 1, the following sectors are considered:

Annex Table 1. Cultural and creative sectors covered by the analysis (NACE classification)

Classification	CCI sectors
C13	Manufacture of textiles
C14	Manufacture of wearing apparel
C15	Manufacture of leather and related products
C18	Printing and reproduction of recorded media
C31	Manufacture of furniture
C32.1	Manufacture of jewellery, bijouterie and related articles
C32.2	Manufacture of musical instruments
I56.1	Restaurants and mobile food service activities
J58	Publishing activities
J59	Motion picture, video and television programme production, sound recording and music publishing activities
J60	Programming and broadcasting activities
M71.1	Architectural and engineering activities, technical testing and analysis
M73.1	Advertising
R90	Creative, arts and entertainment activities
R91	Libraries, archives, museums, and other cultural activities

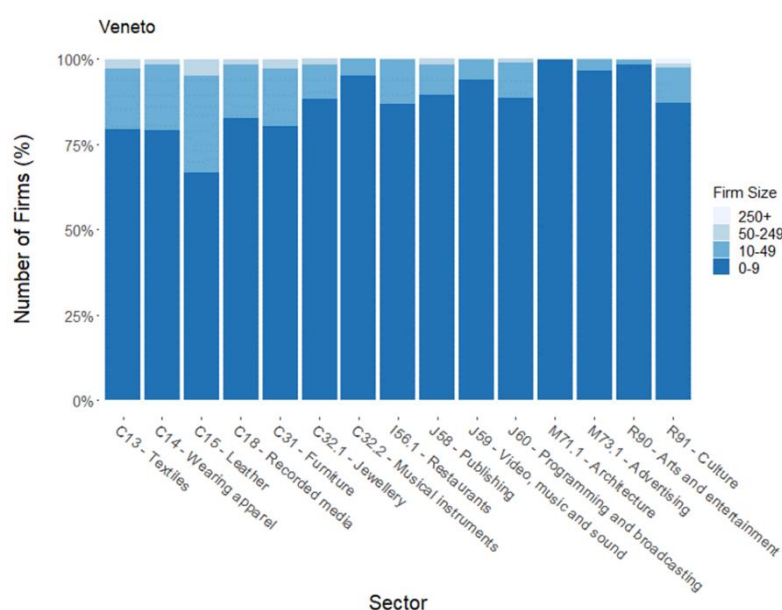
This data allows a good but uneven coverage of cultural and creative production on the basis of available classifications. Nevertheless, many of the most important components of the cultural and creative sectors are represented in this classification, so it is a viable approximation to understand the geography of cultural and creative production in Veneto. To better grasp in which sense coverage is uneven, consider the following:

- Certain categories capture well some key elements of the cultural and creative sphere, such as cultural centres (R91) and the creative arts (R90).
- Certain specific production sectors that unambiguously fall into the scope of cultural and creative production are also well captured, as in the case of recorded media (C18), publishing (J58), cinema, video and music production (J59), broadcasting (J60) and advertising (M73.1).
- In other cases, the classification system focuses on very specific areas of the cultural and creative production field which have a distinctive manufacturing component. This includes jewellery (C32.1) and musical instruments (C32.2).
- In yet other cases, sectors are defined to include a mix of activities that fall within the cultural and creative sector sphere and some that don't, such as in the manufacturing textiles (C13), wearing apparel (C14), leather (C15) and furniture (C31) sectors, or in the case of restaurants (I56.1) and architectural and engineering services (M71.1). Here, as already remarked, there is a coexistence of fashion and product design companies together with very traditional manufacturing activities with very low design-related value added.
- On the services side, accordingly, there is a grouping of architecture and design studios with technical service and design activities, with the former clearly falling within creative production and the latter less so. Likewise, in the restaurants sector there are both businesses with a strong creative value added that provide a service that goes far beyond mere nutrition, as well as very traditional cafes and eateries.

Annex 2: Statistical profiles

The distribution of firm size across the various sectors is another important factor to consider in assessing the culture and creative sector. The analysis shown here illustrates that using ISTAT data from 2017.

Annex Figure 1. Distribution of firm size across cultural and creative sectors in the region of Veneto

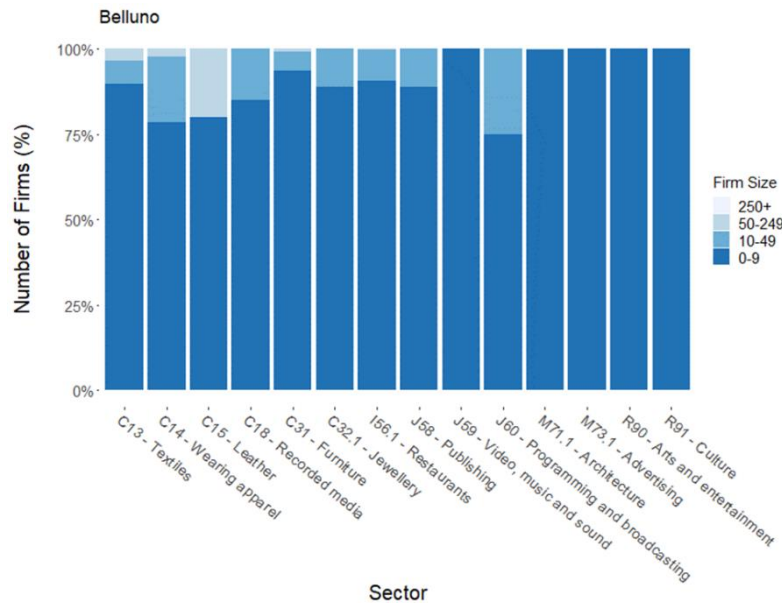


Source: ISTAT (2017 data).

Looking at Veneto as a whole, SMEs dominate across all sectors. Manufacturing has the highest share of larger (250+ employees) and medium-sized enterprises, including in leather, textiles, apparel, and furniture, where there is a significant overlap between cultural and manufacturing dimensions.

The province of Belluno is one of the least densely populated in terms of production (as well as residents) (Annex Figure 2). In this province, some creative production sectors are hardly represented at all. However, a notable detail is the high relative incidence of large firms in the leather sector, and more generally there is some incidence of medium and medium-small sized firms in the usual manufacturing sectors. There is, moreover, a significant incidence of medium-small firms in broadcasting, publishing, restaurants, and jewellery. However, many cultural and creative sectors are entirely populated by very small firms, including architectural design studios, advertising, and the core sectors of events and entertainment, and museums, libraries and archives.

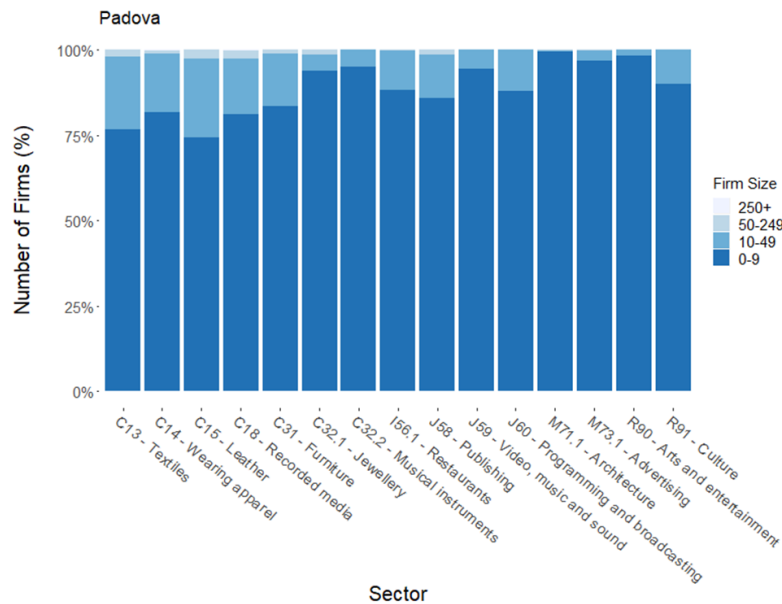
Annex Figure 2. Distribution of firm size across cultural and creative sectors in the province of Belluno



Source: ISTAT (2017 data).

The province of Padua presents the same pattern, with a less fragmented size distribution found in manufacturing sectors as compared to cultural sectors (Annex Figure 3). However, in broadcasting as well as museums, library and archives, there is a significant share of medium-small firms. Unlike Belluno, Padua is one of the region's main productive hubs, and therefore the various sectors here are in general considerably more populated than in Belluno. It is however remarkable that, even in a main regional hub like Padua, the incidence of medium-sized firms is limited, and that of large firms is almost inexistent.

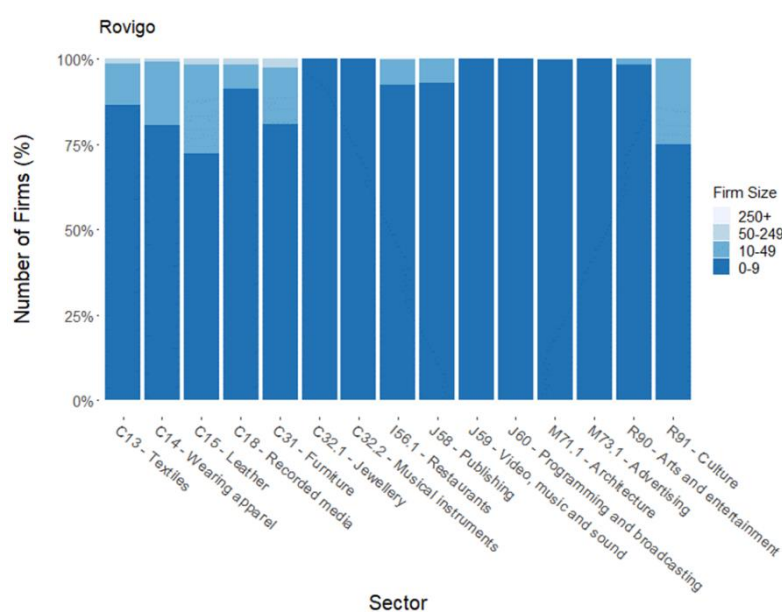
Annex Figure 3. Distribution of firm size across cultural and creative sectors in the province of Padua



Source: ISTAT (2017 data).

Rovigo (Annex Figure 4) is the other scarcely populated productive province of the region and has similar firm size distribution as that of Belluno. However, a major difference is the much higher incidence of medium-small firms in the sector of museums, libraries and archives, probably due to the province's in-between position with respect to two arts and heritage cities of national relevance such as Padua to the north, and Ferrara in the Emilia-Romagna region to the south.

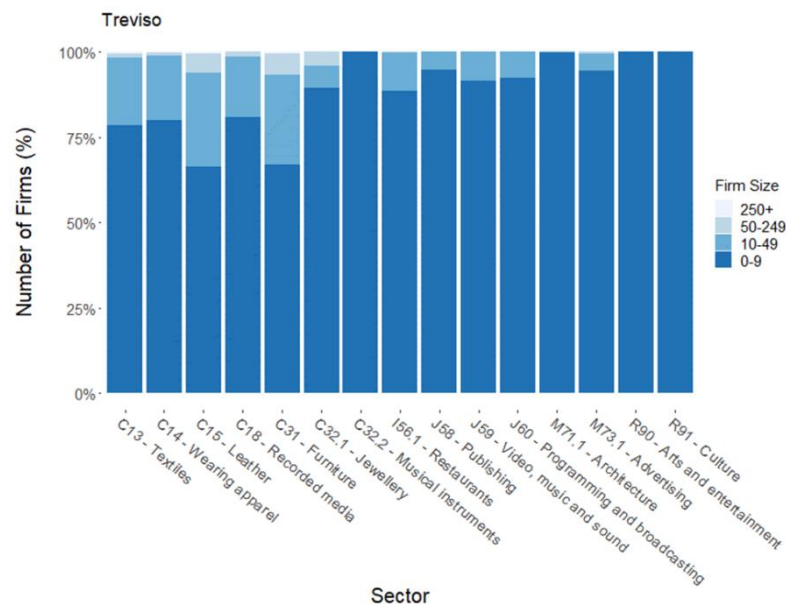
Annex Figure 4. Distribution of firm size across cultural and creative sectors in the province of Rovigo



Source: ISTAT (2017 data).

The distribution for Treviso again shares the main features of the previously discussed provinces (Annex Figure 5). Here, like in Belluno, the core cultural sectors are entirely made of very small firms, but there is a significant incidence of medium-small firms in cultural sectors, such as content production, broadcasting, publishing and advertising. It has to be remarked that Treviso in one of the Veneto provinces with the most pronounced manufacturing specialisation, with a corresponding significant incidence of medium-sized firms in manufacturing sectors, especially leather and furniture.

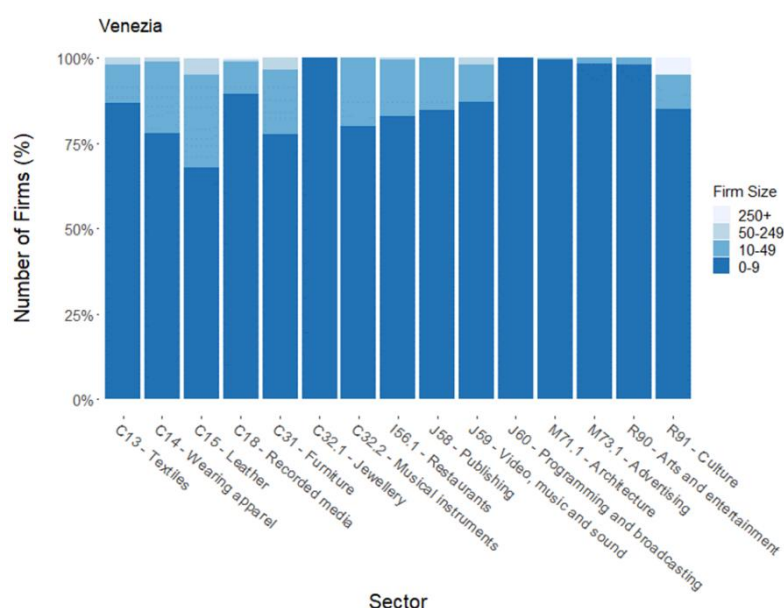
Annex Figure 5. Distribution of firm size across cultural and creative sectors in the province of Treviso



Source: ISTAT (2017 data).

Unlike the more manufacturing-oriented provinces, in the case of Venice (Annex Figure 6) there is a small incidence of medium-sized firms in the manufacturing sectors, with the partial exception of leather. However, in most of the creative sectors such as broadcasting, architectural design, advertising, and events and entertainment, there is an almost exclusive presence of very small firms. On the contrary, there is a significant incidence of medium and even large firms in the museums, libraries and archive sector, thanks to the presence of a number of large cultural institutions with a strong international profile. This distribution reflects the peculiarity of Venice, where the productive side of the creative economy is relatively underdeveloped if compared to the strength of the Venice brand in the global positioning in the cultural and creative fields.

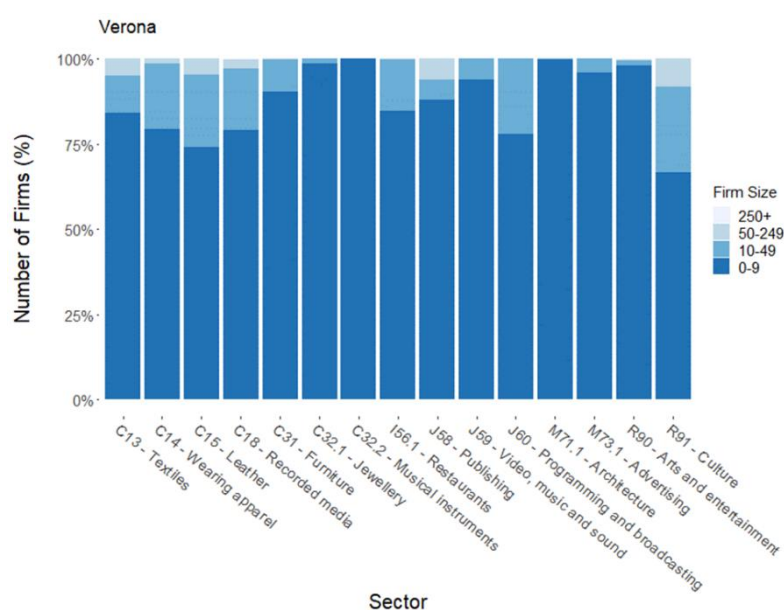
Annex Figure 6. Distribution of firm size across cultural and creative sectors in the province of Venice



Source: ISTAT (2017 data).

In the case of Verona (Annex Figure 7), the size distribution reflects more the typical pattern of provinces with an important manufacturing edge. A significant share of medium-small and medium-sized firms comprise the manufacturing sectors, but also a significant share of medium-sized firms in sectors such as publishing and museums, libraries and archives. Also worthy of note is the share of medium-small firms in the broadcasting sector. However, in the sector of events and entertainment, where Verona has the highest location quotient in Italy, there is a strong predominance of small firms.

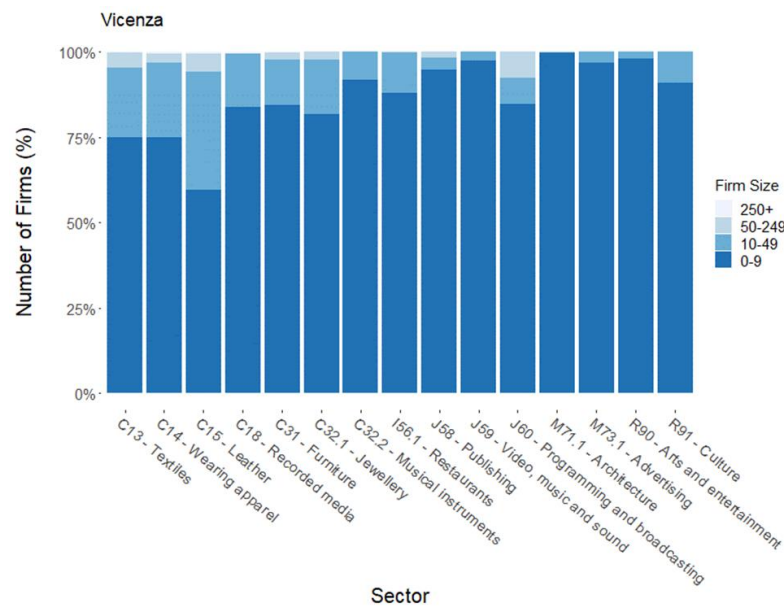
Annex Figure 7. Distribution of firm size across cultural and creative sectors in the province of Verona



Source: ISTAT (2017 data)

The firm size distribution of Vicenza has features that are a mix between Verona and Treviso (Annex Figure 8). Vicenza has a strong productive specialisation in manufacturing sectors and in particular leather and jewellery, as clearly reflected in the incidence of medium and medium-small firms in such sectors. However, there is a very significant incidence of medium-sized firms also in typical cultural sectors, such as broadcasting, as well as an equally significant incidence of medium-small firms in museums, libraries and archives. Vicenza appears therefore as a hybrid case between a manufacture-focused and a culture-focused province: a hub of cultural events and dissemination but less so of cultural production

Annex Figure 8. Distribution of firm size across cultural and creative sectors in the province of Vicenza



Source: ISTAT (2017 data).

Annex 3: Cultural event production in Venice

Venice is undoubtedly a global cultural hub, but its role in the regional economy of cultural and creative production is less dynamic that one might expect, and does not function as the international gateway for the region's cultural and creative economy. Rather, its economy builds upon the city's capacity of attraction as a global tourism destination. Consequently, the city has become, over time an extraordinary platform for cultural events of all kinds, often with a wide national and international appeal. As shown by Sbeti (2019), Venice stages more than 2 500 cultural events per year for a total of about 20 000 event days. This means that, on average, about 50 cultural events are held simultaneously every day (Annex Table 1). However, the production of cultural events has been slowly decreasing over the past few years, even before the pandemic, showing that a saturation threshold has probably been reached. Furthermore, the city of Venice currently faces serious sustainability threats as the pre-pandemic levels of daily presence largely exceeded any reasonable measure of the city's visitor carrying capacity, with serious consequences for both environmental and cultural heritage preservation.

Annex Table 1. Recent trends in cultural event production in Venice

	Year			
	2018	2017	2016	2015
Sector				
Visual arts	362	462	315	456
Music	458	554	548	551
Theatre	334	248	205	285
Dance	43	73	50	42
Film festivals	419	396	345	457
Venetian traditions	10	14	16	11
Sports and games	7	9	59	7
Conferences and conventions	987	1 002	1 083	1 021
Fairs and markets	2	4	8	8
Total	2 622	2 762	2 629	2 838

Source: Sbeti (2019).

The total number of events is slowly declining, and the year-by-year changes are clearly related to the calendar of Venice Biennale events. The Biennale typically catalyses a large number of satellite events around the main programming periods, especially for the Visual Arts and Cinema Biennials, and to a slightly lesser extent for the Architecture Biennale. This strong local specialisation is not reflected in the location quotients relative to artistic, creative and entertainment activities, and this is likely due to classification criteria. The data shows Verona has a far higher level of relative concentration. However, despite the slowly declining trend, Venice has a stable platform for a cultural events economy of global importance.

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