

1 Why care about rural manufacturing

This chapter describes the context of why manufacturing activities are still important in rural regions. While metropolitan regions across OECD countries have benefitted from agglomeration effects in the service sector, manufacturing remains still a key driver of competitiveness in many OECD rural regions. The chapter also highlights the diversity of manufacturing activities in rural regions. These range from large scale multinational enterprises participating in complex global value chains, small businesses participating in primary and other activities, artisans passing down generational skills and cutting-edge innovators using advanced manufacturing techniques.

There is a need to better combine regional and industrial policy

Inequalities in living standards have risen over the past two decades across many OECD regions. Although GDP per capita has continued to increase and converge across OECD economies, gaps between the top and bottom performing regions¹ of many countries have widened. By 2020, 70% of the OECD population lived in a country with growing differences in income between leading and lagging regions (OECD, 2023^[1]). This is leading many governments to review the design of regional and rural place-based development policies that can effectively address growing regional inequality in living standards.

In parallel, the shocks of the COVID-19 pandemic, disruptions in global value chains, and Russia's large-scale aggression in Ukraine, has called for more self-sufficiency and less reliance on external actors for strategic industries. Furthermore, the urgent need to accelerate the green and digital transition is leading to wide-spread calls for greater government involvement in the economy, including by means of an active industrial policy (Rodrik, 2022^[2]). The simultaneous growing importance of these two policy domains calls for a better understanding of how to better build coherence and synergies between them.

Place-based policies have evolved over the past decades. During the 1960s and 1970s they compensated lagging places through subsidies and support measures targeting infrastructure and public services in the poorest regions and provided incentives to induce firms to remain in or relocate to such areas. These responses often failed in their objective of reducing inequality over the medium and long term and, in several cases, created a culture of dependence in recipient regions, many of which experienced development traps (OECD, 2011^[3]). In response to these mixed results, governments in OECD countries progressively embraced a new regional paradigm focusing on the growth potential across all regions including through improving local access and resources (OECD, 2011^[3]). The initial objectives of prioritising growth and competitiveness shifted in focus to delivering well-being standards to citizens living in the regions. The 2008 global financial crisis and shocks brought by COVID-19 pandemic and Russia's aggression has exacerbated gaps in many regions reinvigorating discussions on how to re-focus regional policies to reduce growing gaps.

Industrial policy has also evolved. During the 1980s, most economists abandoned the version of industrial policy that focused strictly on developing the manufacturing sector in favour of "competition policy", a notion that looked at the growth of competitively advantageous industries to boost, in particular, GDP. Policies focused on identifying national champions, often supporting them in the pursuit of innovations and boosting the aggregate economy despite sometimes large financial liabilities (Terzi, 2022, p. 22^[4]). When several countries engage in industrial policy to promote their own national champions, it often leads to a race to the bottom in terms of subsidies and protections. Such dynamics reduce the chances of success for any individual country, creating an unstable global economic environment (IMF, 2023^[5]). At the same time, industrial policy has evolved in recognising the weaknesses of a top-down approach and noting the value of contributions from local stakeholders in achieving success.

Traditionally, the fundamental difference between both approaches consisted in the target of policies. Industrial policy favoured production in some sectors as more desirable than in others. In contrast place-based policy targets the development of certain places, focusing particularly on inducing bottom-up development dynamics and integrating different policy areas to the needs and characteristics of the places. Although not in any case mutually exclusive, this distinction between the two approaches has started to blur as measures that combine elements from both policy strands including the concept of smart specialisation in the EU in particular. This concept is an industrial and innovation framework for regional economies that supports combining public policies, framework conditions, and especially R&D and innovation investment policies to influence the industrial specialisations of a region and consequently its productivity, competitiveness and economic growth path (OECD, 2014^[6]). Although smart specialisation targets all regions in the EU, given the growing regional innovation divide in Europe, smart specialisation strategies have been called upon particularly in selected less developed and transition regions to improve their regional innovation eco-systems, by focusing more on their regional potential (European Commission,

2022^[7]). Furthermore, the EU Green Deal Industrial Plan (February 2023) and the associated Net-Zero Industry Act (March 2023), show that there is a clear motivation to develop local European industry via similar means as established strategies abroad (e.g., United States Inflation Reduction Act (IRA) and China's substantial investments in green industries). These plans include specific stipulations for the development of net-zero technologies as a catalyst for growth in less-developed regions and with the aim of enhancing and/or transitioning key sectors, manufacturing being chief among them.

The European Commission tabled a proposal for a regulation establishing a new Strategic Technologies for Europe Platform (STEP) proposal to boost investments in critical technologies (deep and digital, clean and bio technologies) in Europe. It contains specific provisions to encourage the use of Cohesion Policy in less developed regions to target investment from large companies in these sectors and reinforce local manufacturing ecosystems. For the case of the US, the strong place-based dimension that is embedded in the recent spending bills in the American Rescue Plan Act (ARP), the Infrastructure Investment and Jobs Act (IIJA), the CHIPS and Science Act, and the IRA is starting to shape the concept of place-based industrial policy (Brookings Institution, 2023^[8]). It is clear that more work needs to be undertaken to build coherence and complementarities between industrial and regional policies, especially for lagging regions.

Understanding the diversity of rural manufacturing

Understanding the mechanisms through which rural manufacturers differentiate their products is part of the challenge in supporting their adaptation to future challenges. Not all manufacturing is large-scale and tied to global value chains (GVCs) nor is it high-technology. Firms may create products that are either differentiated, meaning they are able to command a price premium for their product, or commoditised and open to global price competition. Such production processes and firms are highly prominent in rural areas. The following section expands on the means of differentiation and includes artisanal skills, heritage, SMEs and family-owned business. This differentiation considers how production is or is not tied to the local area. These concepts are developed further below in a typology identifying rural competitive advantages through differentiation of products.

Anchoring rural manufacturing through heritage or artisanal skills

For goods that do not rely on the costs of local natural resources, their production is not necessarily tied to (or anchored in) a specific territory. In such scenarios, these products often lack differentiating features and most likely compete on price. In these instances, when deciding where to invest, firms consider many regional-specific factors such as governance, local skills, economic eco-systems such as communication links, quality of life, housing schools etc. In other words, the firms are to some extent anchors. However, historical context is another feature that ties manufacturing to particular regions.

Before the first Industrial Revolution, much of the manufacturing activity in Europe took place in people's homes. At that time, most of the population lived in rural towns and villages and spent much of their time labouring on the land. While traditional professions like blacksmiths and wainwrights produced some goods, others were produced as a side-line to agricultural work. For example, families may have worked on textile production during the winter or other times when they were not busy on the land. To support and achieve scale in these efforts, distributed manufacturing systems developed – so-called cottage industries – whereby raw materials like yarn would be delivered to people's homes and finished goods later collected, with the work being done by hand or using simple hand-powered machinery. Like the skilled artisans, some cottage industries in rural regions have survived successive industrial revolutions and this ancient method of working has similarly become a driver of both economies and identities.

Artisanal production still matters for rural economies. While artisanal skillsets are mostly historical today, they endure in some areas and can be important economic drivers at a local level. In a world of largely

homogenous mass production, handmade goods produced by skilled artisans continue to be highly prized by consumers. For example, the production of Harris Tweed in the western isles of Scotland, United Kingdom, continues to operate, to some extent, as a cottage industry, with all fabric woven in the islanders' homes. Failure to adhere to this age-old process means the fabric will not receive the stamp of authenticity from the product's independent authority (Harris Tweed^[9]). Research has shown consumers are willing to pay significantly more for handmade goods (Fuchs, Schreier and Van Osselaer, 2015^[10]) and that they increasingly take an interest in where things are made (Yang et al., 2019^[11]). Public interest in this type of manufacturing is such that it is regularly tied together with tourism experiences so visitors can see the work in action, further expanding these activities' economic impact on rural communities.

Several regional-industrial identities have emerged since the Industrial Revolution. Products such as Delftware from the Netherlands or Bohemian Crystal from the western Czech Republic have made their places of origin famous, leveraging local assets and skillsets to build a source of identity and pride as well as prosperity. These identities have helped to stave off commoditisation and have been a source of resilience, with several of these products having survived tumultuous change over centuries. The differentiation that these heritage manufacturers develop helps insulate them from global price competition while, at the same time, anchoring production locally. The business models underpinning rural businesses that specialise in niches linked to traditional know-how and local consolidated cultural heritage, for example, engage in "innovations" that would not typically be captured in more common notions of innovation.

However, such deep regional ties to particular industries might occasionally impede necessary change, so they can be a double-edged sword. The existence of a strong identity does not guarantee the survival of the industry and there are places where it has been lost. In these cases, the strength of local industrial identity may impede redevelopment by making it harder for local people to imagine a different future and the role they may play in it. In one example, the town of Asbestos in Quebec, Canada, now Val des Sources, recently changed its name in an effort to disassociate itself from its industrial past, noting that the old name was complicating its efforts to develop new economic relationships following the end of asbestos production in the community (Val des Sources, 2019^[12]).

At its height in the mid-1800s, the English city of Manchester, United Kingdom, the world's first industrial city, was responsible for almost one-third of the world's cotton fabric production. A century later, mills there were closing at a rate of one per week and the city's last mill closed in the 1980s (Williams, 1992^[13]). A city once nicknamed Cottonopolis had completely vacated the industry that once defined it; yet it had also grown to a city of over 2.7 million and developed a more diversified economy with that scale. The scale of production achieved through cotton manufacturing enabled the city to scale up, internationalise and diversify. Niche, place-differentiated products are especially relevant for small cities and rural regions, as they can help overcome some of the challenges related to smaller scale and lower local economic diversity. One way in which manufacturers can achieve this is consistency in the production process. For example, Le Creuset, a cast-iron cookware company based in the village of Fresnoy-le-Grand in northern France, has for almost a century now maintained its original process of forging, casting and hand-finishing its products, placing the heritage of its process at the centre of its value proposition (Le Creuset^[14]).

Rural SMEs and family-owned businesses

The manufacturing sector comprises a vast array of different types of businesses, requiring, in turn, policies that recognise this heterogeneity. These range from first- and second-stage processing firms of agri-food products, micro-entrepreneurs bringing innovations to remote areas, medium-sized family businesses and large-scale multinationals, amongst others.

In 2020, almost all firms in OECD economies were small with less than 10 employees. What is more, the share of small firms in non-metropolitan regions was higher than in metropolitan regions in 15 of the 23 OECD countries analysed (OECD, 2020^[15]). Where more granular data are available on different size

categories, there is a more noticeable difference between rural areas and metropolitan areas. For example, in Scotland, firms with fewer than 10 employees accounted for 91% of firms in rural remote areas and 90% in accessible rural areas in 2020. In comparison, only 82% of firms had fewer than 10 employees in urban areas (OECD, 2023^[16]).² In Switzerland, small firms in urban areas in 2019 accounted for 88% of the economy, while in non-metropolitan areas they accounted for 92% (OECD, 2022^[17]).

Yet SMEs face unique challenges of their own, in particular in rural areas. In many cases, their smaller size may create difficulties in producing, innovating, growing and scaling up (OECD, 2020^[18]). In Canada, small firms are less likely to spend on research and development than larger firms, and the probability to innovate decreases for rural firms, which may also hinder access to into export markets (OECD, Forthcoming^[19]). In Switzerland, rural firms spend less on research and development on average, as compared to those in peri-urban or metropolitan areas, but also tend to turn investment inward, as compared to more outward trends in research and development investment that is observed in urban firms (OECD, 2022^[17]). Rural firms, tend to continue to rely on small scale user-based solutions to overcome challenges in access to basic business services and markets (OECD, Forthcoming^[19]; OECD, Forthcoming^[20]; OECD, 2023^[16]). A prominent barrier for SMEs is also access to external finance and an overreliance on internal funds. Rural SMEs face even greater difficulties accessing traditional forms of finance than their metropolitan counterparts (Kärnä and Stephan, 2022^[21]). OECD work on financing SMEs (2022^[22]), particularly sustainable financing (2022^[23]) provides insights into policies to aid access to alternative sources of finance and reducing barriers to access grants and subsidies. Finding mechanisms to support firm scale up without relocation (OECD, 2023^[24]), especially for access to relevant skills (for example scaler firms employ 15-30% more IT specialists and 15-20% more workers with a master's degree than non-scaling firms (OECD, 2021^[25])) could help create margins needed for rural firms to more fully participating in formal innovation.

At the same time, in a world with increasingly fragmented production lines, multinational firms do not just choose countries; they select regions. As these large multinationals move to just-in-case rather than just-in-time modes of production, there are opportunities for rural regions to benefit from these likely geographically shorter chains. It also presents challenges for firms integrated into more geographically fragmented GVCs in cases where their current niche products are no longer demanded to the same extent. Potential opportunities for rural regions to attract investment in manufacturing and improve spillovers from these multinational enterprises to local SMEs (OECD, 2022^[26]), particularly in sectors considered as nationally strategic, will require boosting the attractiveness of the territory as a whole (OECD, 2023^[27]). For many areas, this will require improved investments in the same factors that can drive innovation, including infrastructure – transport and digital – especially in remote rural areas. It will also require efforts to improve skills in the local workforce, particularly with respect to the green transition (OECD, 2023^[28]).

Urban manufacturing firms have more diverse ownership structures, including publicly traded companies, private corporations and partnerships, than rural manufacturing firms, which are more likely to be privately owned, family-run businesses or co-operatives (Patterson and Anderson, 2003^[29]). Whilst this may be a disadvantage in terms of, for example, access to wide sources of capital, family ownership can be an additional source of continuity in manufacturing. In the Biella region in northern Italy, famous for its wool fabrics, production processes have been modernised over time and the labour force has been reduced in recent decades; yet the industry remains anchored locally by family-owned companies, one of which is Vitale Barberis Canonico (VBC). This company has been making fabric in Biella for 13 generations and over 350 years (VBC^[30]). Family ownership may hold other advantages as there is evidence that these firms can be more innovative, achieving higher levels of new patents, products and new product revenue than their non-family-owned peers, despite investing less in research and development (Kammerlander and van Essen, 2017^[31]). Such efficient innovation can help these firms keep their products ahead of competitors with differentiating features that can command higher prices, permitting profitable production to be maintained in places that may not offer the lowest costs.

Developing a typology

Understanding the mechanisms through which rural manufacturers differentiate their products is part of the challenge in supporting their adaptation to megatrends. To take automation as an example (further expanded in the following chapters), much work discusses the potential for jobs to be automated and the fact that governments are increasingly assuming that automation is the future of manufacturing. Many already deliver programmes intended to incentivise automation. However, just because a job could be automated does not mean that it will be or should be. This path may be suitable for some types of manufacturers but not all. Indeed, there are some resilient and successful rural manufacturers today that purposefully use antiquated production technologies because these are an integral part of their identity and, therefore, of their product's differentiated value (see Box 1.1). Policy makers must, therefore, be mindful of the variety of paths forward, understanding that the basis of value-added can vary sector by sector, region by region, and offering policies and programmes that support value creation in whatever form it takes.

Taking into account the degree of differentiation and ties with the territory, this report develops a simple typology of manufacturing firms relevant to the rural context. Broadly speaking, firms may create products that are either differentiated, meaning they are able to command a price (brand) premium for their product or else are commoditised and more open to global price competition.

Rural manufacturers may differentiate themselves in three, not mutually exclusive, ways: i) through their artisanal skills and specialised local reputation; ii) through their heritage; and/or iii) through innovation.

Among firms selling commodities that are somewhat homogeneous and competing mainly on price, the ties of such production may be driven by their business being built around local natural resources and, in cases where these resources are not scarce or costly to leverage, distance to markets can create a barrier. Manufacturers with no “local anchor” of comparative advantage are therefore generally at higher risk of international and, indeed, national competition, heightening the importance of policies that enable upgrading or product differentiation.

Table 1.1 aims to capture distinctions in how a firm competes and whether it distinguishes itself from others. This taxonomy classifies products according to whether they are differentiated or commoditised and then takes into account the underlying drivers of these.

Table 1.1. A typology of manufacturing firms

	Differentiated			Commoditised	
Manufacturer type	Artisanal	Heritage	Innovative	Anchored by natural resources	Anchorless
Characteristics	Highly skilled, small-scale production leveraging a historic process with longstanding ties to the region	Products with a longstanding traditional link to a region but not a particular production process	High-technology products at the cutting edge of both production technology and product features	Products created from locally sourced natural resources	Lacking differentiating features, competing on price and geographic proximity to markets
Examples	Cottage industries, handmade, premium bespoke products	Swiss watches, Scottish Whisky, Italian fabrics	Information and communication technology, pharmaceuticals and medical devices	Agri-food, forestry and mining processors	Motor vehicle parts, household appliances
Broad core objective	To have current skills better known and valued, so can charge higher prices for small amounts of production	To use new processes for efficiency whilst leaning on branding and the reputation of region	To continuously innovate in the process in order not to get stuck in disappearing specialisation	To produce sustainably	To reduce risks of company relocations whilst remaining competitive pricing
Scalability	Low	Medium	High	Low	High

Examples of manufacturing regions under this construction include the following:

- In Portugal, Ave is a traditional heritage centre of textiles and shoe manufacturing and has upgraded the technology used for this production. The region of Tuttlingen, Germany, was also traditionally famous for its shoe industry, due to the numerous tanneries that had sprung up along the Danube over the centuries; however, the region has evolved to produce high-technology and cutting-edge products for the medical industry.
- The regions of Komárom-Esztergom, Hungary, and outside the OECD, Arad in Romania and Gabrovo in Bulgaria have benefitted largely from initially more anchorless foreign investments in the automotive, electronic and plastic sectors, attracted by policy actions.
- In Canada, Bellechasse stands out for its manufacturing of food and plastic products, making use of its natural resources. In addition, motor vehicle manufacturing is substantial, with one of North America's largest manufacturers of commercial buses anchored only through historical investments leading to its headquarters being located in the region.
- Liberec in the Czech Republic and on the border with Germany and Poland is one of the hubs of the automotive supply chain in the region, gaining advantages through lower prices relative to others who also hold prominent geographical locations close to markets.

Understanding the mechanisms through which rural manufacturers differentiate their products is part of the challenge in supporting their adaptation to megatrends (explored further in the report). The differentiation that manufacturers develop helps insulate them from global price competition while at the same time anchoring production locally. They may differentiate themselves through their innovation and technological advances, which can be anchored to the local natural resources. However, firms producing commodities that have no local anchor may be at risk and public policy needs to be sensitive to these risks.

Meaningful distinctions exist between types of firms and this can alter the required policy responses, even within the same product categories. The way in which these firms consider investment, digitalisation, access to business finance and global markets varies vastly compared to high-technology GVC manufacturers. The sector a manufacturer operates in, its competitive position and the type of region it calls home are all ingredients to be actively considered when designing effective targeted policies.

Box 1.1. A story of two wool fabrics: Distinctions between heritage and artisanal manufacturers

Regional-industrial identities manifest in different ways through different types of manufacturers and may, therefore, require different support across regions, even within the same product categories.

- Harris Tweed is a wool fabric produced in the western isles of the Northwest coast of Scotland. The fabric is commonly used in making sport coats, jackets, gloves and other accessories. Annual production is around 1.7 million metres of fabric.
- Vitale Barberis Canonico (VBC) is a family-run company from the Biella region of northern Italy that produces wool fabric. The company supplies its fabric to tailors the world over for use in making business suits and other formal attire and produces approximately 8 million metres of fabric per year.

Both these products have been produced for centuries and are firmly anchored in their regions, but they differ in an important way:

- The value of Harris Tweed is tied to both where it is made and how it is made. Authentic Harris Tweed is always hand-woven in the home of a weaver, a cottage industry-like arrangement that is protected by an independent authority. If production of a product like Harris Tweed was to be

mechanised and automated, far from securing its future competitiveness, such a move might simply commoditise it, destroying its value.

- On the other hand, the value of VBC fabric is tied to both where it is made and who makes it. As a family-run enterprise for over three centuries, consumers are less concerned with the details of the production process but rather are buying into the long-established quality of the family brand. Today, VBC leverages advanced automation throughout its manufacturing process as an essential underpinning of its competitiveness.

It is therefore important for governments seeking to help these organisations to understand these underpinning drivers of value and tailor their support accordingly. The Scottish government has had some success in doing this, for example in helping address the impact of the demographic trend on Harris Tweed. Ten years ago, the average age of their weavers was over 60: the areas faced depopulation and so an existential threat. However, thanks to efforts to promote traditional weaving in local schools, including the creation of a formal qualification, the average age of weavers has since declined by at least a decade as a new generation takes their place in the industry.

Source: Based on (SQA, 2023^[32]), NPA Harris Tweed SCQF level 5 <https://www.sqa.org.uk/sqa/99258.html> ; VBC (2017^[30]), *The History of Vitale Barberis Canonico* <https://vitalebarberiscanonico.com/who-we-are/our-history/>

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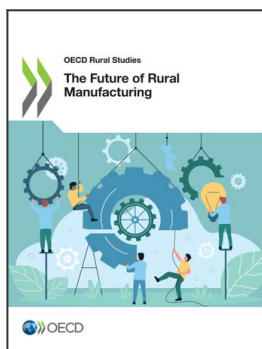
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Notes

¹ Regions are defined on the basis of OECD TL3 levels of aggregation, see Annex 2.A. of this report.

² Furthermore, while small firms are more dominant in rural areas, they only accounted for 45% of workers in remote rural areas, 27% of workers in accessible rural areas, and much lower, 15% in large urban areas.



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