

1 Rethinking SME scale up and growth policies

This chapter introduces the concept of scale up policy. It first aims to disentangle the notion of SME scale up and high growth, and to identify the drivers of SME scaling up based on relevant literature. Building on lessons learned from the microdata work of the project about the profiles and pathways of scalers, it then discusses policy implications, presents rationale for policy intervention in support of scale-ups, and proposes an analytical framework for better understanding country approaches and policy mixes to unleashing SME potential to scale up. This analytical framework supports a series of thematic reports on scale up policies.

In Brief

SMEs and start-ups that scale up have attracted increasing policy attention for their exceptional performance and contribution to job creation, innovation, growth and competitiveness. Public policies accordingly have tried to focus on those firms with the highest growth potential, often by targeting firms in narrow (tech-related) sectors, and engaging large budgetary support. Yet, the conditions for SME scale up remain poorly understood. There is still a lack of evidence on which firms could effectively become scalers, and there is no clear and comprehensive overview of what policy measures and framework conditions work in promoting scale-ups.

***Unleashing SME Potential to Scale Up*, a project jointly initiated by the European Commission and the OECD**, intends to address existing knowledge gaps through empirical work on scalers' profiles and trajectories, and analyses of country policy approaches in promoting SME scaling up through an extensive mapping of relevant policy initiatives and institutions in specific fields across the 38 OECD countries.

Firm growth is commonly measured by sales and employment. Firms grow through a range of strategies, including innovation, investment, market expansion or differentiation, as well as competition, cooperation or collusion.

Policies for scaling up often seek to increase **the capacity of a firm to operate, in a sustained manner, at a higher level of performance, which eventually expresses itself in high growth.** Scale-ups or high growth firms (HGFs) are defined according to Eurostat-OECD recommendations as enterprises with at least ten employees at the beginning of a three-year period that saw average annual growth of over 10%. Future analysis will also adopt a complementary 20% threshold.

The microdata work, based on five pilot countries (Finland, Italy, Portugal, Slovak Republic and Spain) and literature provide evidence on the characteristics and transformation pathways of scalers, and helps draw a number of policy implications.

1. **Scale up is not limited to high-tech start-ups.** The typical scaler is neither a knowledge- nor tech-intensive firm. The majority are mature SMEs (six years old and over) operating in low-tech services. In addition, scalers can be found in all places and across all sectors.
 - **A narrow policy focus on high-tech start-ups is likely to exclude many actual and potential scale-ups, and support may not always be appropriate for those receiving it.**
2. **Scaling up often involves an inner transformation of the firm.** In this context, scalers typically engage in different development trajectories by mobilising and combining – in different ways – three main growth drivers, i.e. i) **innovation** (including research and development, digital adoption, or business development), ii) **investment** (including in physical capital, skills or intangible assets), and iii) **network expansion** (e.g. in domestic or international markets, through cooperation and strategic partnerships, or by using digital platforms). Scaling up drivers are highly interconnected and mutually reinforcing.
 - **The diversity in SME growth profiles and trajectories requires scale-up policies that are equally diverse.** Public intervention can take place at the intersection of a large number of policy domains, i.e. innovation, business R&D, SME digitalisation, entrepreneurship, skills, IPRs, trade, taxation, investment promotion, procurement, competition or cluster policies etc. Examples range from cutting red tape; new

regulations on labour markets; promoting the diffusion of tech, non-tech or digital innovation; improving entrepreneurship education; easing access to finance, foreign markets, public procurement or knowledge infrastructure; as well as addressing distortions in competition from excessive market power of large firms etc.

- **An ecosystem to nurture scalers and a whole-of-government approach are needed.** Scale-up policies are cross-cutting by nature, implying that it would not be sufficient for policy to target one single channel of intervention. A holistic approach is therefore needed to stimulate scale-ups, which can range from targeted support (e.g. for finance, skills, and leadership) to developing favourable entrepreneurial ecosystems. They also require policy coordination at and across different levels of government (local, regional, national, and even supra-national).
3. **It is difficult to predict which firms are going to grow and target them before their transformation.** The decision to innovate, invest, scale up or down depends on a number of market conditions, firm strategy and business owner ambitions, and is also determined by a local, cultural, and industry context that can influence the scaling up process and the willingness of firms to transform.
 - **It is hazardous for policy to seek to pick future winners, and engage large amounts of public resources on these assumptions.** There is a danger of little effectiveness and efficiency of policies if they are poorly targeted, especially since there is limited evidence on which targeted approaches can have the most impacts on generating scale-ups.
 4. **Scalers can maintain new scale over time, and even grow again,** which means that most scalers that have undergone this transformation have gained capacity on a permanent basis.
 - **Scale up policies are likely to pay off, although much remains unexplained, and more evidence is needed.**

The project interprets scale-up policy as the range of public policy interventions that seek to promote SME scale up through improved conditions and incentives for innovation, growth, investment and network expansion. The scope of the work is intentionally broad, so as to capture the “ecosystem of policies” which shape the conditions and incentives of SME scaling up. The policy mix concept is central to the mapping exercise, which seeks to capture the set of policy rationales, governance arrangements and policy instruments that are mobilised, as well as the interactions that can take place between these elements. This work provides the foundations of a series of future policy reports on SME scaling up.

Introduction

The COVID-19 pandemic has had a significant impact on economies and societies, but with uneven repercussions across firms, and the more recent war in Ukraine has introduced further and significant uncertainty. High supply constraints, which are expected to worsen, are feeding inflationary pressures. These developments go hand in hand with more structural challenges, already underway before and then speeded by the pandemic, and mainly related to tightening labour markets and new signs of skills shortages, reflecting, among other things, a shift in the required skills mix due to changing consumption patterns, labour force withdrawals, early retirement, or decline in worker migration (OECD, 2021^[1]).

In this context, and as governments aim to build resilience and speed the transition towards more sustainable and inclusive growth, **fast-growing small and medium-sized enterprises (SMEs) and start-ups are called to play a key role**¹. High-growth firms (HGFs), also called scalers or scale-ups, have been attracting increasing policy attention for their exceptional performance and disproportionate contribution to value and job creation, as well as to the competitiveness of national and sub-national economies. They also play a significant role in innovation creation and diffusion, helping to generate broader economic and social spillovers, with their development and retention in domestic markets increasingly becoming a strategic policy issue.

Only a very small percentage of firms in OECD countries experience high growth. Between 2016 and 2018, for example, only 7% to 17% of firms with at least 10 employees experienced average annual growth over a three-year period of 10% or more (scale ups) in OECD countries². Despite their small number, however, scale-ups account for half or more of gross job creation by SMEs in the OECD (OECD, 2021^[2]).

Public policies accordingly have tried to focus on those firms with the highest growth potential, e.g. often by targeting them in very narrow (tech-related) sectors. For example, the 2022 work programme of the European Innovation Council provides funding opportunities worth over EUR 1.7 billion for breakthrough innovators to scale up and create new markets. EU Members States also agreed early this year to launch the pan-European Scale-up Initiative, which will provide EUR 10 billion for late-stage tech companies to leverage private funding (EIC, 2022^[3]).³

Yet, despite high policy interest and an abundant academic literature, the conditions for, and determinants of, SME growth, and particularly high growth, remain poorly understood. Difficulties stem mainly from the diversity of growth journeys SMEs take during their business lifecycle, including alternate periods of very high growth followed by stagnation or even decline. Adding to the challenge, is the diversity of framework conditions, eco-systems and determinants that influence those journeys. These include market structure and adjustments (e.g. growing demand, new or emerging product markets), changes in competition conditions (e.g. entry costs), changes in regulatory and fiscal frameworks, increasing network effects (e.g. business linkages, increased user base), innovative approaches (e.g. new production or delivery processes) and agglomeration benefits (e.g. spatial concentration of resources) (Sutton, 1998^[4]) (Sutton, 1991^[5]). A critical additional element that is much more difficult to determine is the growth ambitions of the owner(s). As a result, little internationally comparable evidence is currently available that can help better understand the heterogeneity of firms' paths and the complex mix of barriers and enablers that create the conditions for firms to grow (OECD, 2021^[6]).

Compounding the often narrow focus on hi-tech scale-ups is the almost non-existent attention paid to SMEs whose primary purpose is to deliver societal gains. For many SMEs in the social economy, their primary purpose is not economic. Traditional measures of scaling up that look for example at turnover, or indeed (albeit to a lesser extent) job creation, are therefore not always well adapted to the underlying business models of social economy actors. This means that many of these firms may miss out on policy support that can help them scale up in their provision of societal services (often provided for free). Equally, existing measures of scale-ups may not adequately capture firms, whose business models are driven by

other criteria, for example carbon-neutral or organic objectives, meaning, in turn, that analyses of factors that drive observed scale ups may not capture the factors that could help these firms scale up, and deliver on key policy objectives (e.g. inclusive and sustainable growth, where SMEs are playing an increasingly important role. (Koirala, 2019^[7]) (OECD, 2021^[8]) (OECD, 2021^[9]) (OECD, 2023 forthcoming^[10]).

This Chapter sets some conceptual bases for understanding scale-up policies and aims to provide the foundations for a series of policy reports on SME scaling up. It forms part of a multi-year project on *Unleashing SME potential to scale up*, carried out with the support of the European Commission, that intends to better understand the drivers of scaling up and how governments can create the right conditions for potential scalers to succeed. For the purposes of the present work, **“scaling up” encompasses the capacity of a firm to operate, in a sustained manner, at a higher level of performance, that could be defined in different terms, and which may express itself in high growth (being in terms of turnover and/or employment).**

This Chapter is structured as follows. The first section reflects on the measures of firm growth and performance, and how the concepts are linked to better understand the notions of high growth and scale up. It is mainly based on an academic literature review. The second section combines findings from academic literature with new evidence from the previous microdata work on scalers’ profiles and trajectories, and proposes on that basis a set of SME growth drivers, grouped under three overarching pillars i.e. innovation, investment and network expansion. The third section extrapolates on the policy implications of this work, and the last section proposes an analytical framework to monitor and benchmark how countries effectively promote SME scaling up. This framework serves as a common basis for mapping the policies and institutions involved in different aspects of scale-up policies across OECD countries, and to understand commonalities and specificities in country approaches. The framework is applied in Chapters 2 and 3 of this report, respectively on SME access to growth finance and SME data governance, and will serve for future policy reports on *Unleashing SME potential to scale up* (Box 1.1).

Box 1.1. Unleashing SME Potential to Scale Up: a multi-year research project

The OECD project on *Unleashing SME Potential to Scale Up* is carried out with the support of the European Commission. Its pilot phase (2019-21) is articulated across two pillars:

- **A measurement pillar** to better understand the internal drivers and barriers to SME high growth, through empirical work based on business microdata (Box 1.2), and
- **A policy pillar** to analyse national policy mixes and approaches to unleash the potential of scalers through a mapping of relevant initiatives and institutions across the 38 OECD countries (Box 1.6).

Findings of the measurement work have informed the present policy work and were published in a summary report (OECD, 2021^[2]). Over the pilot phase 2019-21, the policy work has focused on two specific areas identified as relevant on the basis of the measurement results: SME access to ‘scale up’ finance, and SME data governance (access, protection, use) (see Chapters 2 and 3 of this report).

Source: <https://www.oecd.org/cfe/smes/sme-scale-up.htm>.

Scaling up is often the result of substantial transformations. Understanding why and how these changes in SMEs capacities and performance occur, and indeed the nature of the changes, and whether they are sustainable, is essential for effective policy design. While at this stage, the work is not normative in terms of identifying effective scale up policies, but rather provides a stocktake of measures implemented by countries in the above two areas, it does recognise the need for more evidence to inform better policies

and stresses the importance of addressing the cross-cutting nature of measures that can support SME growth.

Firm size, growth and performance: concepts and definitions

Scalability has often been associated with a firm's ability to grow rapidly without being hindered by the constraints imposed by its size (Monteiro, 2019^[11]). Understanding how SMEs achieve and sustain a new scale of activity and the underlying changes in their performance and capacity is at the core of this project and report.

Firm size and size growth

Turnover and employment

The most often used indicators to measure firm size are sales and employment, although exact definitions and practices may differ across countries (OECD, 2017^[12]) (Hauser, 2005^[13]). Turnover is the total value of invoices emitted by an enterprise during the period of observation, corresponding to market sales of products or services supplied to third parties. Turnover includes all taxes and charges (e.g., transport and packaging), to the exclusion of value-added tax invoiced (VAT) and financial or extraordinary income. Subsidies from public authorities are also excluded. Employment refers to the total number of persons employed, i.e., who work for the enterprise including working proprietors or unpaid family workers.

Determinants of firm size

A number of market conditions determine the optimal size a firm should achieve to compete, and the opportunities businesses have to scale up or down operations. The following is adapted from the OECD SME and Entrepreneurship Outlook 2019 (OECD, 2019^[14]).

Firms grow to their efficient size as long as they increase economies of scale, i.e., they can reduce average unit cost of production, which eventually determines the efficient scale of production (Figure 1.1). Firms look for an optimum balance between the transaction costs incurred by contracting out and the transaction costs incurred by internalising operations – hence growing through improved competitiveness (Coase, 1937^[15]).

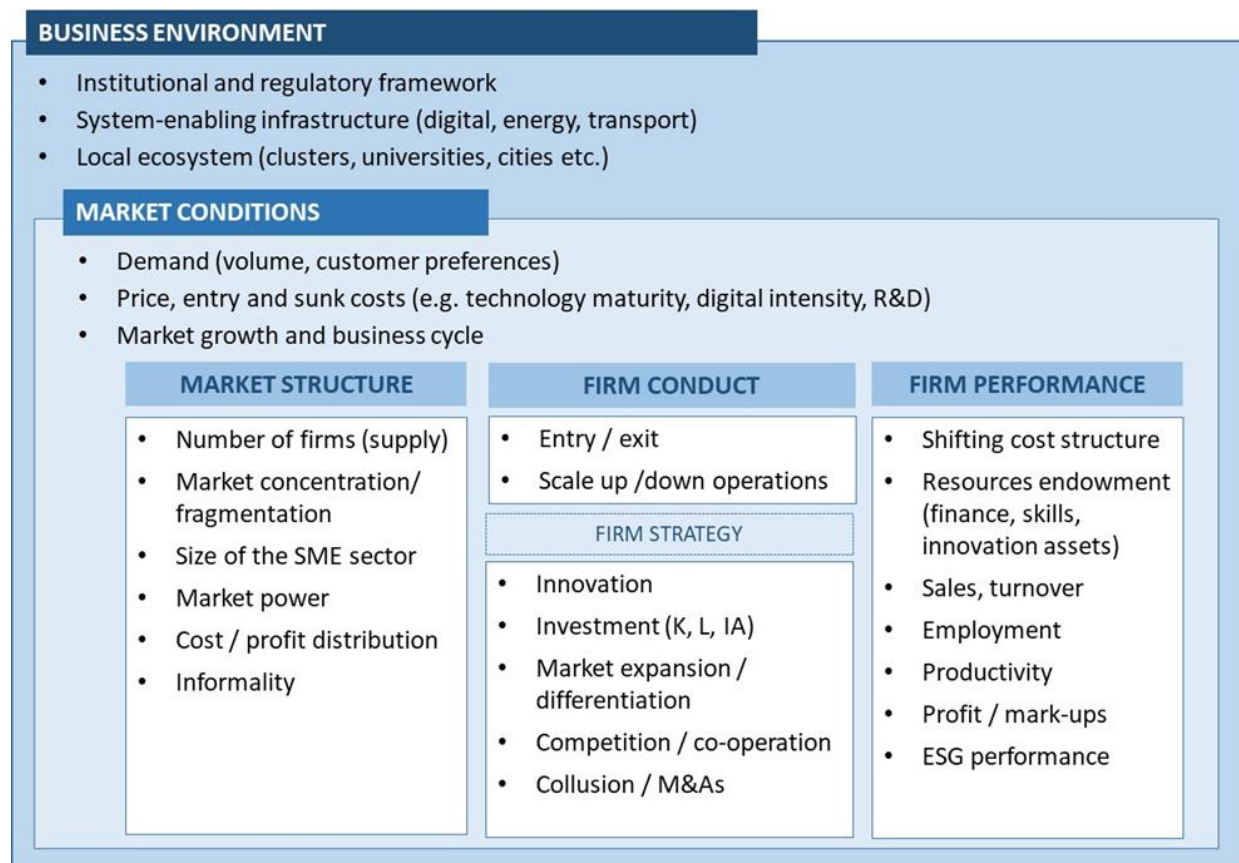
Firms can also achieve external economies of scale, through market growth or agglomeration. Demand, or market size, set the total volume of output in the industry, and determine the number of active firms operating within the industry at the optimal scale of production (Panzar, 1989^[16]). If the market expands, the number of active firms can increase, provided competition conditions support firm entry, or incumbents can grow. Hence, in larger markets, firms tend to be larger. By the same token, the spatial proximity of firms, workers and customers fosters external economies of scale and network effects and helps reduce production costs. These agglomeration economies, together with knowledge spillovers, explain in part the spatial concentration of firms and the increasing attractiveness of urban areas. There are different mechanisms underpinning agglomeration economies. First, when more firms locate in the area, the variety of goods and services increases, and greater specialisation is possible as demand for (specialised) local inputs increases (NB. specialisation is a key driver of SME performance). Second, a larger pool of workers allows SMEs to access a wider spectrum of skills and better fill vacant positions. Third, knowledge spillovers through staff mobility, trade or foreign investments can increase productivity. Combined, this effect can help SMEs reduce costs in accessing resources, infrastructure and markets, and therefore increase their productivity (OECD, 2019^[14]).

The sunk costs firms have to incur to enter, or remain competitive in the market, also affect the optimal size they have to reach in order to offset fixed costs. Sunk costs can be related to the

industry’s technological maturity, business sophistication or digital intensity, as well as the level of investments in advertising or research and development (R&D) that is required to remain at the frontier. More generally capital-intensive industries, high wage industries, or R&D-intensive industries have larger firms (Kumar, Rajan and Zingales, 2000_[17]).

The broader business environment, whether local, national or international, is also an important determinant of the optimal firm size. Stringent taxation and regulation can deter formalisation, firm entry, and firm growth. Poor network infrastructure can increase factor and transaction costs, preventing smaller businesses to scale up operations. The business environment can also change market demand: regulation by opening or closing markets (e.g., certification), transport infrastructure by closing the gap with distant markets, or cities through land planning and agglomeration effects. For instance, countries that have better institutional development, as measured by the judicial system, have larger firms (Kumar, Rajan and Zingales, 2000_[17]). In this sense, the business environment also determines the firm’s cost and profit structure, and the firm conduct in reaction (Figure 1.1).

Figure 1.1. Market structure, firm conduct and performance



Note: For investment, K refers to physical capital, L to skills and IA to intangible assets.
 Source: Elaboration based on (OECD, 2019_[14]), OECD SME and Entrepreneurship Outlook 2019.

Firms adapt their size to market conditions through a range of strategies, including innovation, investment, market expansion or differentiation, competition or cooperation, and collusion. The efficient firm size, and size evolution, therefore, depends on firm conduct, following a number of -separate or combined- strategies:

- *In case of the existence of economies of scale/ scope:* economies of scale/scope are often technology-based. Firm growth is driven by technology adoption and product/process innovation;
- *In case of the existence of market transaction costs:* firms enlarge up to the point that intrafirm governance costs offset the benefits of vertical integration and reduce efficiency, e.g., to respond quickly to the market. Firm growth can be further driven by organisational innovation to reduce bureaucratic costs. But flexible manufacturing technologies and technical standards, or inter-firm cooperation, can provide an alternative to integration as well;
- *In case of imperfect competition and market power:* dominant firms can fix price or coordinate pricing, especially when products are homogeneous. The entry flow of new firms is insufficient for bringing prices down to average costs, and smaller firms are pushed out of business when oligopolists cut prices. Product differentiation –i.e., product and marketing innovation – enables greater freedom of liberty in price-setting and market competition;
- *In case of the existence of network effects:* network effects increase as the firm increases its user base. Beyond a certain threshold of users (critical mass), the revenues cover the production costs and the unit cost decreases. Unlike economies of scale, the production capacity remains unchanged. Network effects can drive firm growth (in terms of revenues, profit or product portfolio) while the firm size (in terms of number of employees or capital investment) remains unchanged. Network effects are reinforced by the interoperability of systems, standardisation and/or co-operation, as well as the use of intellectual property right (IPRs) that are instrumental to the diffusion of the technology (e.g., software, protocols), brand, design etc.;
- *In case of the existence of agglomeration benefits:* the spatial proximity of firms, workers and customers allows a reduction of production costs through both external economies of scale and network effects. Different mechanisms underpin agglomeration economies, including greater specialisation enabled by a concentration of activities, a larger pool of skills available and productivity spill-overs related to staff mobility, trade or foreign investments.

At the same time, the relationship between market conditions and firms is not one-way. **Business strategies can also alter market conditions** and, in particular, market structures that reflect the distribution of market power and firm costs, and thereby, the scope for innovating, profit making and growing (OECD, 2019_[14]).

Overall, the optimal firm size is the scale of production a business should reach to achieve optimal performance. There is no ideal, especially since there may be trade-offs between different criteria of performance, but an equilibrium size distribution emerges that depends on resource endowment, technology, markets and institutions (Hallberg, 2000_[18]). In addition, the firm size distribution evolves over time with changing production terms (factor endowment and economies of scale), disruptive technology and innovation, and changing cost structure, e.g., transportation costs (that can affect the spatial concentration of production and market size) or transaction costs (that can affect business demographics). **It comes therefore as no surprise that firm growth is strongly related to performance growth, and often captured through different notions of this performance (i.e. sales, productivity).**

Firm performance and performance growth

Firm performance is understood through different lenses that are not mutually exclusive and often prove to be interrelated. High growth, productivity, innovation and exporting have long been considered as indicators of entrepreneurial performance (OECD, 2017_[12]). Due to size constraints and more narrow scope for economies of scale, SMEs mainly rely on innovation and product differentiation, and network and agglomeration effects for increasing profit and productivity.

Based on a literature review (OECD, 2019_[14]), Figure 1.2 provides a stylised representation of the different channels through which firms can increase profits and productivity, by increasing turnover (i.e. by

increasing the volume of production or price) or reducing costs (i.e. by achieving internal or external economies of scale or scope, reducing sunk costs or reaping network effects). Figure 1.2 also identifies those channels that are more accessible to SMEs.

Figure 1.2. Levers of SME profit and productivity growth

What can enable greater productivity and business profit growth? Which growth channels are more specific to SMEs?

Increasing turnover			Decreasing costs		
Channels	Drivers	SME	Channels	Drivers	SME
↗ Production volume	Internationalisation		↗ Economies of scale	Mass production	
	Product differentiation	*		Mergers and acquisitions	
	Mergers and acquisitions		↗ Economies of scope	Product differentiation (horizontal)	*
	Spatial concentration	*		Mergers and acquisitions	
↗ Price	Product differentiation (vertical)	*	↘ Transaction costs	Vertical firm integration	
	Quality	*		Standardisation	*
	Customisation	*		Inter-firm co-operation	*
	Sophistication	*	↘ Sunk costs	Inter-firm co-operation	*
	Specialisation	*		Open data, open innovation	*
Market power			↗ Network effects	Inter-firm co-operation	*
				Intellectual property rights	
				Standardisation	*
			↗ External economies	Agglomeration	*
				Inter-firm co-operation	*

Note: This representation does not account for external shocks that can affect firm's turnover and costs, i.e. due to changes in market demand and supply (e.g. sudden increase in energy and commodities prices in times of war).

Source: Adapted from (OECD, 2019_[14]), "Market conditions" in OECD (2019), *OECD SME and Entrepreneurship Outlook 2019*.

More recently, pressing environmental and societal considerations, changing consumer preferences and new investors' requirements have prompted business actors to improve their environmental, social and governance (ESG) performance, adopt more responsible business conduct (RBC) and demonstrate greater corporate social responsibility (CSR). As a result, the core notion of firm performance remains market driven, but has become increasingly multifaceted.

Productivity

Productivity measures the efficiency of production, i.e., the efficiency of resource use. It is commonly defined as a ratio between output volume and input volume, whereas exact measures differ depending on the purpose of measurement and the data available (Table 1.1) (OECD, 2001_[19]). The most frequent one is labour productivity as the current price gross value added per person employed.

Table 1.1. Overview of main productivity measures

Type of output measure	Type of input measure			
	Labour	Capital	Capital and labour	Capital, labour and intermediate inputs (energy, materials, services)
Gross output	Labour productivity (based on gross output)	Capital productivity (based on gross output)	Capital-labour MFP (based on gross output)	KLEMS multifactor productivity
Value added	Labour productivity (based on value added)	Capital productivity (based on value added)	Capital-labour MFP (based on value added)	-
	Single factor productivity measures		Multifactor productivity (MFP) measures	

Source: (OECD, 2001^[19]), Measuring Productivity. OECD Manual, <https://www.oecd.org/sdd/productivity-stats/2352458.pdf>.

Productivity gains come from a number of internal- and external-to-the-firm factors. Internal factors are typically levers on which business owners and managers can act to improve business performance (Marchese et al., 2019^[20]). The most often reported ones in the literature are physical capital (i.e. investment in plants, machinery, buildings), skills development, digital adoption and ICT investment, business networks, including through participation in clusters and global supply chains, and innovation, including performing research and development (R&D). External factors refer to market, industry and local conditions (e.g., degree of competition, technology development, economies of agglomeration etc.), which shape firm conduct, especially strategic choices of business owners, and influence productivity growth and diffusion.

Profit, mark-ups, market shares and stock markets

Productivity gains can translate into price competitiveness if the firm can differentiate price on its market. For equal quality, price competitiveness is likely to allow firms to gain market share, i.e., a certain proportion of total output, or total sales, or capacity the firm accounts for in its industry or market.

Productivity gains could also translate into greater cost competitiveness and, all else equal, more profitability. Profit is the surplus earned above the normal return on capital (OECD, 1993^[21]). Profits emerge as the excess of total revenue over the opportunity cost of producing the good/service.

Greater profitability can ease access to external finance, either by signalling value to investors or lowering risk perception for lenders, **and it can increase self-funding capacity** for reinvestment into production, innovation or market expansion activities, which can then create room for new productivity gains. **Profitability can also increase the market value of the firm**, determined in stock markets that are also often used to assess the long-term profitability of the firm.

There is however considerable controversy as to whether higher levels of profitability reflect the returns to superior efficiency and skills, or the exercise of market power. Mark-ups as measured as a ratio between output price and its marginal cost reflect profit and market power. Mark-ups generally increase with firm size, and firms with the highest levels of market power tend to enjoy larger mark-ups (De Loecker and Eeckhout, 2017^[22]) and (Calligaris, Criscuolo and Marcolin, 2018^[23]).

Innovation

By innovating, the firm seeks new opportunities and competitive advantage, and aims to generate more profits, through increased sales, greater brand awareness, new customer base or higher market shares (i.e., product innovation), or through greater cost efficiency and improved productivity (i.e., business process innovation) (Crépon, Duguet and Mairesse, 1998^[24]). **The OECD/Eurostat Oslo Manual defines innovation** as: “a new or improved product or process (or combination thereof) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)” (OECD/Eurostat, 2018^[25]).

The term ‘innovation’ refers to both an activity and the (successful) outcome of this activity. It is an extremely broad concept that encompasses a wide range of diverse activities. R&D, for instance, is one of the activities that can generate innovations, or through which useful knowledge for innovation can be acquired or created. The diffusion of new technology is also central to the process of innovation, and the process of innovation diffusion. **In that sense, innovation is at the same time a channel for improving SME performance and a measure of its performance.**

Innovations derive from an accumulation of knowledge and information that constitutes the firm’s knowledge-based capital (KBC, also referred to as knowledge-based assets or innovation assets). Innovation requires complementary investments in technology, skills and organisational changes, which in turn require financial, human and knowledge-based capital, and a well-functioning of the markets where those strategic resources could be accessed. Moreover, business ability to invest and take risk, or share knowledge and assets, depends on institutional and regulatory frameworks, quality infrastructure and competition and market conditions (OECD, 2019^[14]).

Innovation is therefore a complex and polyform phenomena that remains difficult to measure. In the absence of a composite or synthetic index, proxies of input, output and performance could be used to approximate a firm’s innovation capacity and performance (OECD, 2010^[26]). Innovation inputs include R&D and innovation expenditure, adoption rates of new technologies or practices that are considered as productivity-enhancing (digital), acquisition of new machinery and equipment, hiring of highly skilled, investment in intangible assets (e.g., software, data), expansion of networks (use of platforms, establishment of cooperation partnerships, development of supply-chains linkages, etc.). Indicators of innovation output include patenting, licensing revenues, revenues from new product/services etc. Indicators of innovation performance are even rarer, and include gains in market shares, productivity, resource and cost efficiency etc.

Export and internationalisation

SME internationalisation and integration into global value chains (GVCs) could be direct through trade or indirect through supply chains and market mechanisms that involve international actors (OECD, 2018^[27]) (OECD, 2021^[9]).

Like innovation, internationalisation is both a channel for improving SME performance and a signal of their higher performance, the cause being difficult to dissociate from the consequence. SMEs are less often engaged in international activities but those that are show greater performance (Eurostat, 2018^[28]). International SMEs are more profitable and more innovative than their domestic peers; they also have a larger network (St-Pierre, 2003^[29]) (Baldegger and Schueffel, 2010^[30]). **Engaging in international markets can be expensive, a cost that usually only the most productive firms can afford** (Melitz, 2003^[31]) (Bernard, 2007^[32]). For instance, trading costs related to learning about and adjusting to the foreign environment, or addressing increased internal organisational complexity, can weigh disproportionately on SME profitability as smaller firms trade smaller volumes. Participation in GVCs can also require complying with quality standards or obtain certifications that further increase the costs SMEs

have to incur upfront and subsequently to adjust to changing conditions. The rise of ESG and RBC requirements may heighten the relative cost of their internationalisation.

At the same time, integration into GVCs is of particular relevance for SMEs that can expand markets and networks abroad, specialise and compete within niche segments of GVCs that the fragmentation of production globally made accessible to smaller actors, and proceed to capacity upgrading through the exchanges that take place within the value chains (OECD, 2019^[14]) (OECD, 2008^[33]). **Closer global integration has implications for non-exporter SMEs that operate in local markets as well**, through increased competition, which can have disruptive effects on local economies and requires enhancing market knowledge and competitiveness of small businesses.

Through trade, SMEs can access cheaper or more sophisticated imported products and services, or technology embodied in imported products (Lopez Gonzalez, 2016^[34]) (López González and Jouanjean, 2017^[35]). Firms that use more imports are in fact more productive and better able to face the costs of exporting (Bas and Strauss-Kahn, 2015^[36]) (Bas and Strauss-Kahn, 2014^[37]). Imports and access to markets abroad can also be a way to build resilience through greater supplier redundancy and diversification in sourcing and production locations (OECD, 2023 forthcoming^[10]).

Additionally, international investments can have positive spillovers on domestic SMEs (OECD, 2022 forthcoming^[38]), (Crisuolo and Timmis, 2017^[39]), (Lejarraga et al., 2016^[40]) (OECD, 2019^[41]) (OECD/UNIDO, 2019^[42]). Technology and knowledge spillovers occur through value chain linkages when SMEs serve as local suppliers/buyers of foreign affiliates, through the strategic partnerships they build with foreign investors, through labour mobility, more often when foreign firms' employees join local SMEs or set up a business locally, or through competition and imitation effects (OECD, 2022 forthcoming^[38]). The magnitude of productivity and innovation spillovers depend on the qualities of FDI, the absorptive capacity of local SMEs, and some structural factors such as local economic geography and the policy and institutional framework. A greenfield investment, for example, is likely to involve the implementation of a new technology in the host country and a direct transfer of knowledge from the parent firm to the new affiliate (Farole and Winkler, 2014^[43]).

There is therefore a variety of approaches and measures in use to assess SME internationalisation performance. Some focus on export performance, e.g. number of SMEs exporting, export volume and export growth, export profitability and export propensity (i.e. share of exports by SMEs divided by the share of output by SMEs) (Baldegger and Schueffel, 2010^[30]) (OECD, 2017^[12]). Transactions can be expressed in absolute value or value-added terms to account for re-exporting and multiple cross-border flows (OECD/WTO, 2011^[44]). Others focus on SME linkages with foreign multinationals (MNEs) through supply chains (e.g., domestic sourcing of MNEs) and technology cooperation (e.g., licensing from foreign-owned firms) (see (OECD, 2022 forthcoming^[38]) for a more comprehensive overview).

Sustainability and resilience performance

SMEs have turned into important drivers of inclusive and green growth with the potential to lead a transition to an eco-friendly, low-carbon economy and simultaneously, steer broad improvements in societal welfare (Koirala, 2019^[7]) (OECD, 2021^[8]). This reframing is taking place within a broader policy debate on how to better conciliate productivity and inclusiveness (OECD, 2018^[45]) (Stiglitz, Fitoussi and Durand, 2018^[46]) (OECD, 2019^[14]), and to decouple economic growth from resource use and environmental degradation.

SMEs are key actors in building more resilient socio-economic ecosystems and supply chains. The COVID-19 crisis has revealed the vulnerability of GVCs and placed the issue of sovereignty at the forefront of the economic policy debate (OECD, 2021^[9]). Resilience arises from supplier diversification and open markets to ensure supply, especially of essential goods. For non-essential goods, it relies on the ability of existing networks of suppliers –most likely SMEs– to bouncing back faster after a shock (OECD, 2021^[47]). Instead of switching suppliers and partners and incurring more inherent sunk costs, businesses may

entrust relationships within existing networks that have become a key aspect of risk management strategies in supply chains. Promoting responsible business conduct will therefore be critical (OECD, 2021^[47]). Throughout the COVID-19 crisis, many companies have been looking to collaborate towards solutions to enhance supply chain resilience, e.g., by supporting their suppliers and business partners with accelerated payments (OECD, 2021^[48]). But other reactions have exacerbated supply chain vulnerabilities, e.g., sudden order cancellations that had cascading effects on factory closures, product shortages and job losses.

Consequently, SMEs' performance is increasingly associated with sustainable business practices, from improving resource efficiency, to reducing environmental footprint, to raising ability to comply with ESG requirements and RBC standards (Figure 1.3) (Boffo and Patalano, 2020^[49]). Environmental factors can include natural resource use, carbon emissions, energy efficiency, pollution and other sustainability initiatives. Social factors can include workforce related issues (health, diversity, training), and broader societal issues such as human rights, data privacy, and community engagement. Governance factors can include corporate ethics, gender and minorities' diversity, or enforcing shareholder rights. A poor environmental record may make a firm vulnerable to legal action or regulatory penalties; poor treatment of workers may lead to high absenteeism, lower productivity, and weak client relations; and weak corporate governance can incentivise unethical behaviours related to pay, accounting and disclosure irregularities, and fraud.

Figure 1.3. ESG Scoring: key criteria

Environmental factors	Social factors	Governance factors
Natural resource use	Workforce	Board independence
Carbon emissions	Human rights	Board diversity
Energy efficiency	Diversity	Shareholder rights
Pollution/waste	Supply chain	Management compensation
Environmental opportunities		Corporate ethics

Source: (Boffo and Patalano, 2020^[49]) based on ESG Rating providers, OECD, selected themes for illustration.

One of the key ways in which investors and markets assess ESG performance is through ESG ratings, which they obtain from established ESG raters (Boffo and Patalano, 2020^[49]). Among the major market data providers such as Bloomberg or Thomson Reuters, there is a wide range of rating practices in terms of the aspects of sustainability assessed, which data to include, how to weigh metrics etc. Even if ESG methodologies are becoming more robust, and there is more back testing of scores against performance, scoring remains in a state of transition. In fact, the metrics used by companies and data providers suffer from a lack of consistency and uneven transparency, and the correlation among the scores different raters assign to the same companies is low. In addition, the ESG scoring environment is still dominated by large capitalised companies, and SMEs are not yet under scrutiny, which has raised concerns about how small businesses could document their ESG/RBC performance and comply with requirements on markets and within supply chains, or access new sources of sustainable finance (OECD, 2021^[9]) (OECD, 2021^[8]).

High growth and scale up

SME growth is measured in different ways and different studies have used different criteria, i.e.

- The indicator of growth. Growth is most commonly measured in terms of employment (number of employees) or turnover (sales) (Coad et al., 2014^[50]). Of these, employment-based metrics are

more commonly used as employee headcount is more often available in administrative datasets on enterprises. While both dimensions are likely to evolve in parallel, there is still a possible trade-off, with impacts on firm productivity (see (Monteiro, 2019^[11]) and (OECD, 2021^[2]) for discussion);

- The metric of growth, often formulated as absolute versus relative growth, or a combination of both, as the Birch index (Schreyer, 2000^[51]);
- The period over which growth is measured, which is frequently over three to four years (Coad et al., 2014^[50]); and
- The process of – organic or internal versus acquired or external – growth (Delmar and Davidsson, 2000^[52]).

High growth firms (HGFs) can be defined either as the percentage of enterprises in a population that experience the highest growth performance, e.g. the top 1%-5%-10% with the highest growth rate in a given period (Monteiro, 2019^[11]) (Coad et al., 2014^[50]) (Petersen and Ahmad, 2007^[53]), or firms that rank first according to a measure that combines relative (percentage) and absolute rates of expansion (Schreyer, 2000^[51]), or firms growing at or above a certain rate over a certain period. For instance, (Autio, Sapienza and Almeida^[54]) and (Halabisky, Dreessen and Parsley^[55]) use sale growth of at least 50% during each of three consecutive financial years.

The **Eurostat-OECD Manual on Business Demography Statistics** recommends defining high-growth enterprises as enterprises with at least ten employees at the beginning of the period, and over 20% growth per annum averaged over a three-year period (OECD/Eurostat, 2008^[56]) (Ahmad, 2006^[57]). In the European Union, the Commission implementing regulation (EU) No. 439/2014 sets the definition of high-growth enterprises as follows: “*all enterprises with at least 10 employees in the beginning of their growth and having average annualised growth in number of employees greater than 10% per annum, over a three-year period*”. Both definitions are used in the literature (OECD, 2017^[12]).

In the microdata work of this project, **high-growth enterprises are defined as firms with at least 10 employees that grow 10% per year on average in employment and/or turnover over 3 years** (Box 1.2), and additional analysis focuses on the higher – 20% per year – growth threshold. Recent trends in digitalisation and globalisation have reinforced the importance to consider (high) growth in both employment and turnover, as firms could reach new scales in turnover terms without growing in employment terms, i.e., scaling up by turnover criteria but not by employment criteria.

Box 1.2. Understanding Firm Growth – a pilot microdata work

Leveraging firm-level data sources from five OECD pilot countries (Finland, Italy, Portugal, Slovak Republic and Spain), the microdata work on *Unleashing SME potential to scale up* aimed in particular to capture the heterogeneity of scalers, the changes these firms undertake before, during, and after the high-growth phase, and the sustainability of their new scale (OECD, 2021^[2]).

In the report, “scalers” are identified through employment- or turnover-based (high) growth, which are taken as a signal of a transformative process at play within the firm. High-growth enterprises are defined as firms with at least 10 employees that grow 10% per year on average in employment and/ or turnover over 3 years.

The work assesses the factors that accompany this growth, i.e., the dimensions through which the firm reached new scales or growth milestones, before, during and after its growth phase, thereby taking also into consideration the capacity of a firm to operate in a sustained manner at a larger scale. To identify the features that distinguish scalers from other firms, the analysis compares them with their “peers”, i.e., firms in the same sector, founded around the same time and of similar size before the scaler enters its high-growth phase.

Source: (OECD, 2021^[2]).

The sequencing of high growth and performance increase can differ across different segments of the SME populations. The microdata work of this project has explored the trajectories of HGFs in five pilot countries and the transformations they go through before, during and after a high growth phase (Box 1.2), identifying several factors that enable SMEs to change scale before entering a high growth phase, thus confirming the co-existence of different models and pathways of transformation (OECD, 2021^[2]).

Scale ups may not grow in employment and turnover at the same time (at least in the short run) and may not grow in employment at all. Consequently, focusing solely on employment growth would exclude a large share of firms that reach another scale of economic activity without exceptional employment growth (OECD, 2021^[2]). Employment and sales growth have in fact been found to be weakly correlated (Wiklund, Patzelt and Shepherd, 2009^[58]) and can refer to different types of business transformation, the former pointing towards an increase in resource and the latter towards greater market diffusion (product acceptance). The micro data work shows that only about one-third of turnover HGFs are also employment HGFs at the same time (OECD, 2021^[2]). This could be all the most problematic as the use of different growth indicators influence our understanding of who successful scalers are (Coad et al., 2014^[50]).

Increasingly, the use of digital technologies leverages the ability of small firms to grow in turnover without employment growth as digitalisation affects market structures and the cost competitiveness of SMEs (OECD, 2019^[14]) (OECD, 2021^[59]). Different forms of business growth are emerging, with enterprises able to achieve significant scale, market share and high productivity, without needs for more investments or new hiring. For instance, “lean start-ups” are emerging that leverage the Internet to lower fixed costs and outsource many aspects of the business to stay agile and responsive to the market (OECD, 2017^[60]). SMEs may also grow without employment growth domestically when they outsource the most labour-intensive activities of production abroad, in countries where labour costs are lower (OECD, 2021^[2]).

If for a subset of SMEs (probably the majority) changes in capacity lead to scaling up and high growth, in the case of demand-driven HGFs, growth in size comes without a clear link to any business transformation. The microdata work shows in these latter cases that the SME has no

anticipatory strategy, neither shows intrinsic difference with its peers, but instead enjoys and adapts to a sudden windfall in demand (OECD, 2021^[2]). Demand-driven scalers might benefit from unexpected market developments leading to a sudden windfall in demand. This can for example be the case of a company producing face masks in the outbreak of a pandemic. To expand production and satisfy increased demand, the firm needs to hire new workers in a short period of time. In such cases, factors driving firm growth might be temporary, which also means that scaling might not be sustainable, and the firm might go back to its initial size.

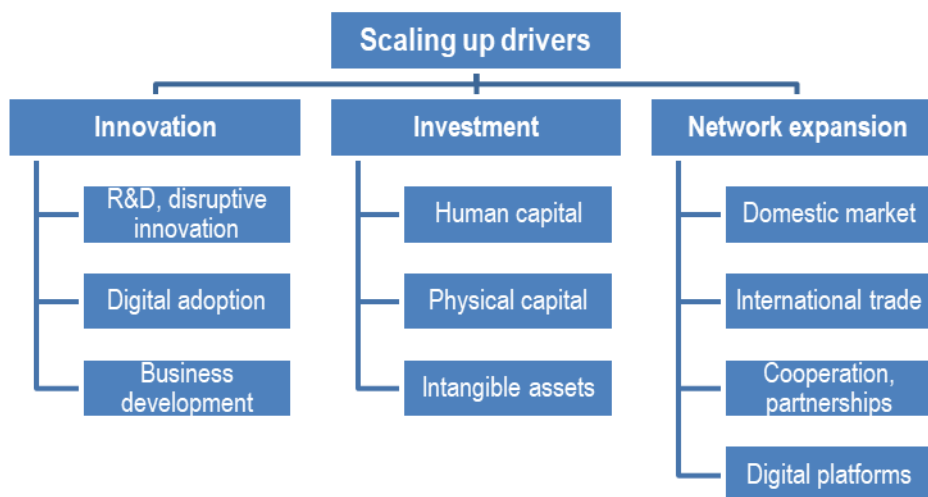
This raises the question of sustainability in scaling. High growth is a transitory phase. Once a firm reaches a new scale it is likely to maintain it. In particular, scaling up in turnover may be generated via improvements in firm productivity and resource efficiency, which are often targets that firms set for themselves. Profit-seeking firms intend to increase turnover (size) along with other measures of performance, such as stock returns. Most firms are able to at least consolidate their new scale following their high-growth phase (OECD, 2021^[2]). About 60% of scale-ups succeed in maintaining their new scale during the three years after their initial high-growth phase and about 20% continue to grow in later stages – albeit with important differences across sectors.

Scaling up drivers: which levers do scalers use?

While there is a broad range of factors that could enable and incentivise SMEs and start-ups to scale up⁴, there is still a lack of certainty – and evidence – on which firms could effectively become a scaler, and in turn which policies are most effective for nurturing them. Building on key findings from a literature review and the microdata work⁵ of the project, **three main SME scaling up drivers have been identified for the purpose of the present report** to better understand the characteristics of scalers and the transformation process they go through during a high growth phase. These scale up drivers could be further decomposed into seven sub-drivers (Figure 1.4)

- **Innovation** (including research and development - R&D- and disruptive innovation, digital adoption, or business development),
- **Investment** (including in physical capital, skills or intangible assets), and
- **Network expansion** (e.g. in the domestic market, through internationalisation, or cooperation and strategic partnerships, or through the use of digital platforms)

Figure 1.4. Synthetic overview of SME performance and scaling up drivers



Source: Author's own elaboration.

SMEs that scale up typically mobilise a combination of these drivers, yet their sequencing might differ, depending on a complex mix of factors related to scalers' profiles and their overall transformation model. The following sections dig into more detail into the role of each driver and its related sub-dimensions for SME scale up. A last section comments on the multiplier effect of these drivers.

Innovation

Scaling is the result of a forward-looking growth strategy grounded on innovation and productivity improvements (OECD, 2021^[2]). At the onset of this transformation is an entrepreneurial mindset and an opportunity-oriented behaviour of business owners, managers, teams and/or individuals to grow a business. Likewise, the measurement part of the project has highlighted innovation as a key differentiating factor between scalers and non-scalers (Table 1.2) (OECD, 2021^[2]).

Table 1.2. The central role of innovation in scalers' transformation models

Transformation model	Disruptive or incremental innovation	Corporate strategy	Temporary or persistent change	Demand or supply-driven
Disruptive innovator	Disruptive	Anticipatory	Temporary/Persistent	Supply
Gradual innovator	Incremental	Anticipatory	Persistent	Supply
More-of-the-same scaler	Incremental	Anticipatory	Persistent	Both
Demand-driven scaler	Disruptive	Reactive	Temporary	Demand

Source: (OECD, 2021^[2])

In particular, the “**disruptive innovator**” develops new products or processes, either by investing in R&D or other innovation assets, e.g. in digitalisation. This group of scalers is characterised by permanent differences compared to peers that are linked to innovation, such as greater workforce diversity. By contrast, the “**gradual innovator**” grows through productivity gains and additional market shares. Its growth model is very similar to that of the “disruptive innovator”, but the transformation is more incremental following a process that adds strength to strength in the case of the “gradual scaler”, while it is more sudden following a change that revolutionises firm operations in the case of the “disruptive innovator”.

R&D and disruptive innovation

Scalers are more R&D oriented (OECD, 2021^[2]). **R&D can generate new knowledge which could bring to the inventor a major competitive advantage, even leading to radical disruptions in markets and behaviours.** R&D comprises creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society – and to devise new applications of available knowledge (OECD, 2015^[61]). The most R&D-intensive sectors include computer and electronics manufacturing, software development and information and communication services, pharmaceuticals or automotive industries (OECD, 2022^[62]). For instance, research on new materials could transform the computer and electronics industry. Flexible “bendable” electronics could enable new applications such as wearables, e-tattoos or potentially low-cost solutions based on direct 3D printing of electronic circuits. The graphene, an electrically conductive, chemically stable and the world’s strongest material, if used in manufacturing logic circuits, could solve the processing speed limitations of silicon transistors, and enable more efficient rechargeable batteries, and better and faster electronics (EC, 2019^[63]).

Radical innovations are considered to transform the status quo, while a disruptive innovation takes root in simple applications in a niche market and then diffuses throughout the market, eventually

displacing established competitors (Christensen, 1997^[64]) (OECD/Eurostat, 2018^[25]). Disruptive innovation typically originates in two market segments that incumbents overlook. The first relates to underserved market spaces where incumbents that typically target the most profitable and demanding customers with ever-improving products and services, pay less attention to less-demanding customers, which opens the door to a disrupter for providing low-end customers with a “good enough” product. The second consists in unlocking new-market footholds, where disrupters create a market where none existed. Put simply, they find a way to turn non-consumers into consumers (Christensen, Raynor and McDonald, 2015^[65]). Radical and disruptive innovations are likely to be very rare and difficult to identify or measure within the limited observation period recommended for innovation surveys (OECD/Eurostat, 2018^[25]).

Digital adoption

Scalers use more dedicated IT resources (OECD, 2021^[2]). **Digitalisation offers a range of opportunities for SMEs to improve performance, enhance productivity and compete, on a more even footing, with larger firms.** Possible benefits have been extensively discussed in the 2021 OECD report on “The Digital Transformation of SMEs”, including: increased economies of scale; lower operation and transaction costs; reduced information asymmetries; greater capacity for product differentiation, business intelligence or automation; increased customer and market outreach; network effects, etc. (OECD, 2021^[59]). For instance, SMEs can increase efficiency in their internal processes, gain knowledge about their clients and partners, and better anticipate fluctuations and risks in their business environment, from the adoption and combination of data intensive technologies, such as the Internet of Things and distributed ledger technologies (data generation and exchange), cloud computing (data storage), and artificial intelligence (AI) (data analytics) (Chapter 3).

Business development

Other forms of innovation through the adoption of new processes or practices can support business development and scale up, e.g. in areas like marketing, branding, organisation, or other non-tech areas, which may then translate into increased market share, improved access to new markets, or new products (OECD, 2019^[66]) (OECD, 2019^[14]). Given that smaller firms have less capacity to carry out in-house R&D due to size-related and resource constraints, incremental and non-technological innovation is more central to many SME business models. Business innovation surveys confirm that SMEs are more often engaged in organisational or marketing innovation than large firms, also reflecting a sectoral bias towards services where SMEs concentrate, and where innovation is in essence less capital- and technology-intensive.

Investments

The measurement work illustrates the importance of –all sorts of– investments for scalers. The “*gradual innovator*” invests in human and physical capital, and in intangible assets in anticipation of scaling. This type of scaler is characterised by persistent differences compared to peers in human capital (e.g. the share of educated workers and IT specialists). **Investments are also particularly central to the model of the “more-of-the-same” scaler** that grows without changing production processes (OECD, 2021^[2]). This type of scaler is characterised by a higher investment rate and higher debt than peers in anticipation of scaling. This is the economist’s case of “economies of scale”, e.g. a manufacturing firm building a second production line and doubling capacity within the same establishment, or a software company that can increase production without additional costs once the sunk costs of product development are covered. New firms that need to quickly reach a viable scale to survive also fall into this group.

Physical capital

Investing in physical assets can be essential to scale up business operations, depending on the sector an SME is operating in. Physical assets include an extremely broad range of assets, with capital-intensive industries requiring especially machinery and industrial equipment, while service firms typically focus more on vehicles and ICT (OECD, 2015^[67]). It was estimated that between 30-70% of the growth of output per worker (productivity) in OECD countries could be accounted for by capital accumulation in the short term, while all gains in the long term were caused by technological progress, often embodied into physical capital (Aghion and Howitt, 2007^[68]).

Incidentally, physical capital, used as collateral, can also facilitate access to external funding for expansion, notably debt finance. Innovative companies, young firms and start-ups continue to face particular challenges in this area, although collateral requirements have tended to decline significantly in recent years (OECD, 2022^[69]). **Likewise, monetising physical assets can open access to alternative asset-based finance.** In most cases, physical capital, such as land, inventory, machinery, equipment, and real estate can allow the firm to access working capital under more flexible terms than from conventional lending. That way, asset-based instruments can fill existing SME financing gaps (OECD, 2015^[67]).

Skills and human capital

Scalers employ relatively more educated workers (OECD, 2021^[2]). **Skilled workers are a key asset for competition in a knowledge-based economy** (Autor, 2013^[70]) (Grundke et al., 2017^[71]) and skills development has become critical in a context of a fast and irreversible digital transition and growing globalisation (OECD, 2019^[14]). Highly skilled employees are more likely to perform complex tasks that can drive firm competitiveness and productivity growth (Acemoglu, 2002^[72]). Empirical studies converge in fact towards a mutually reinforcing relationship between workforce skills, and innovation and productivity (Marchese et al., 2019^[20]). Skilled employees are also vital for technology and innovation absorption, as well as breaking into new markets, or for adapting to organisational change during phases of transitions such as growth or exporting for the first time (OECD, 2015^[73]). Improving the skills of workers can also strengthen SME position in GVCs by enabling specialisation and integration in high value-added activities (e.g. technologically-advanced industries, complex business services (OECD, 2017^[74]). Incidentally, many business surveys identify access to workforce skills as a key constraint to firm growth (Siepel, Cowling and Coad, 2017^[75]).

In addition, scaling up and high growth require leadership and management skills to cope with the disruptive transformation process firms are going through, and that can alter their organisational dynamics (OECD, 2010^[76]). SME founders usually have specific expertise, while growth often requires an expanded skillset to address the emerging complexities: from commercial (e.g. marketing and serving of new offers), to project management (e.g. logistics, organisations of events), financial (e.g. capital and cash flow management) and strategic thinking (e.g. building internal leadership, coordinating sets of actions to fulfil new strategic objectives) (OECD, 2019^[66]). Several studies argue that growth capabilities are largely shaped by leadership and management capability development upstream (Koryak et al., 2015^[77]).

Intangible assets

Investment in intangible assets, such as computerised information, innovative property and economic competencies, has grown significantly with the rise of the knowledge- and data-driven economy (Andrews and Criscuolo, 2013^[78]) (OECD, 2015^[79]). As innovation turned more incremental, open and non-technological, new opportunities arose for smaller actors to innovate, and non-physical “intangible” innovation assets have become central to their competitive edge, such as firm-specific skills and know-how, data and brands, copyrights, designs, patents, trademarks and other intellectual property rights (IPRs), algorithms, databases and software, organisational settings and processes, or business

models and networks etc. (see Chapter 3). Accordingly, corporate investment in intangible assets has outstripped investment in traditional tangible assets, such as machinery and physical equipment, accounting for over 70% of firms' value in the United Kingdom and the United States already in early 2010s. For example, it is estimated that data assets only cover nearly 40% of today's intangible investment (Corrado et al., 2022^[80]).

Incidentally, promoting IPRs can be instrumental for improving scalers access to growth finance.

Beyond the benefits of efficient IPR law and enforcement systems for ensuring the appropriation of innovation benefits and incentivising risk taking, IPRs can help SMEs gain additional revenues (e.g. through licensing) and serve as collateral or guarantee for bank lenders and investors (OECD, 2015^[81]).

Network expansion

SME capacity of building and expanding networks is determinant for their innovation and growth outlook. Networks can improve SMEs access to clients or partners, knowledge and talent, data and technology, or finance, and allow them to benefit from innovation spillovers that could help them transform processes and business models and scale up performance (OECD, 2019^[14]). In fact, SMEs due to their more limited internal capacity tend to be more dependent on external sources of knowledge, and their integration into local, national and global innovation networks could help them capture knowledge spillovers. Strong networks are also a key attribute of successful entrepreneurial ecosystems and critical in stimulating and growing start-ups.

SME network expansion can take different forms, e.g., through their supply chains, in domestic and/or international markets, via cooperation and partnerships, or through the use of digital platforms. How they can influence SME capacity and opportunity to scale up can vary depending on the nature of the network.

Domestic market expansion

The domestic markets remain the prime space where SMEs do business and most of them start their expansion journey domestically (OECD, 2019^[14]) (OECD, 2019^[66]). SMEs are predominantly local actors embedded in nearby markets and ecosystems, and their business linkages act as channels for knowledge spillovers (OECD, 2018^[82]). Firms engaged in buyer-supplier relationships can enter in collaborative arrangements for undertaking product innovation, for competition or internationalisation purposes or for workforce training. Collaboration with customers can also be a channel, especially as SMEs tend to enjoy close relationships with end-users and better understanding of near-by market (OECD, 2019^[14]).

In particular, public procurement offers considerable opportunities for SMEs to expand business operations, innovate, and boost competitiveness. In 2019, public procurement amounted to close to 30% of government expenditures in the OECD area and about 13% of GDP (OECD, 2021^[83]). Through their significant procurement of very diverse goods and services (equipment and supplies, maintenance and repairs, energy, ICT, consulting, etc.) and the commissioning of services provided directly to consumers, national and subnational governments creates scope for engagement with small-scale local specialist providers, while also offering relative stability in demand, security of payment and spill-overs that might accrue through accreditation and recognition of being a supplier to government (e.g. for customer base expansion, or for negotiating other contracts and financing) (OECD, 2019^[14]).

International trade

Scalers increase their global market presence, in some cases exporting (OECD, 2021^[2]). **Stronger participation by SMEs in global markets creates opportunities to scale up**, by opening new markets, facilitating access to foreign technology and managerial know-how and creating spill-overs during the interactions along the value chains, broadening and deepening the skillset, and accelerating innovation.

SMEs integrate into GVCs as direct exporters (trading), upstream suppliers of exporting firms (supplying) or importers of foreign inputs and technologies (sourcing) (OECD, 2019^[14]). GVCs, in particular, offer new opportunities for SMEs to specialise within production networks, rather than compete along the entire line of activities, which gives an edge to smaller actors. In turn, value creation within GVC results from the low replicability of products, i.e. firms' capability to innovate and differentiate their output (OECD, 2013^[84]) (Kaplinsky and Morris, 2002^[85]).

Cooperation and partnerships

As SMEs draw on external economies of scale for increasing performance, collaboration, strategic partnerships, or alliances play a key role for scaling up. Collaborative arrangements are set up for multiple purposes, e.g. for sharing business risks, accessing and pooling resources, managing joint innovation activities, combining forces for commercialisation and marketing, or simply sharing knowledge and information (OECD, 2019^[14]). For instance, a frequent way for SMEs to access global markets and improve global competitiveness is to establish alliances through business linkages or trade associations.

SME cooperation partnerships can involve (other) small and large firms, competitors and customers, domestic firms and multinationals, as well as knowledge providers, such as universities. This plurality reflects the multiplicity of actors engaged in business and knowledge networks, that generate (suppliers), distribute (intermediaries) and use (users) knowledge, serving multiple functions into knowledge networks and turning knowledge transfers into multidirectional and multidimensional flows (Kergroach, 2020^[86]).

Digital platforms

An online platform is a digital service that facilitates interactions between two or more distinct but interdependent sets of users (whether firms or individuals) who interact through the service via the internet" (OECD, 2019^[87]). Online platforms are very heterogeneous in their functionalities, structures and in the services they offer, and SMEs can carry out numerous key business functions by using them, such as marketing, advertising, branding, customer services and external communication (e.g. Google, Facebook), e-commerce and online marketplaces (e.g. Amazon, e-Bay), service delivery (e.g. Deliveroo, Uber, Airbnb), financing and payment (e.g. PayPal), remote working and teleconferencing (e.g. Zoom), or for R&D, design and exploration (e.g. GitHub) (OECD, 2021^[59]).

Digital platforms are instrumental in SME network expansion and provide important channels for SME growth. They enable greater access to new markets, sourcing channels and a multitude of digital networks. They provide scope for efficiencies that can drive economies of scale, leverage network effects, and, in turn, boost competitiveness and productivity (OECD, 2021^[59]).

A central feature of online platforms relates to their ability to generate and deliver network effects, which make them particularly attractive for SMEs. Network effects imply that the usefulness of multi-side platforms is directly correlated to the size of their user-base (OECD, 2019^[87]), the larger, the more likely to find a match (e.g. with service providers, suppliers, clients) and to reduce transaction costs and information asymmetry. A case in point are online marketplaces, where ancillary services such as review and rating systems, platform insurance on purchases and refunds, as well as guarantees on delivery times and logistic, greatly increase the trust of consumers, making it more likely for an SME to be able to sell to them via the platform than through its own app/website (OECD, 2021^[59]).

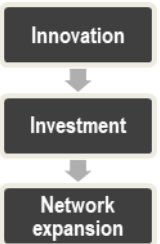
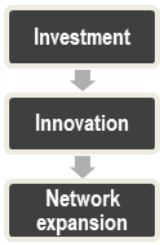
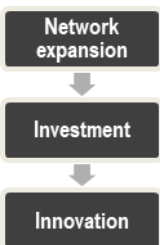
However, not all digital platforms are likely to drive SME growth to the same extent and the growth of all types of businesses the same way. The platform economy embeds for instance the gig platforms which matches workers, most often self-employed, to customers (final consumers or businesses) on a per-service or per-task ("gig") basis. These platforms, if they allow SMEs on the demand-side to reduce labour costs through increased employment flexibility and easier connection with specialised workers, appear

more as a substitution solution to traditional self-employment or an income complement for own-account workers (Schwellnus et al., 2019^[88]), with limited scope for growth on this side of the market. In addition, gig platforms remain few and have mainly grown in a small number of services such as personal transport and services and crafts.

Multiplier effects of scaling up drivers

Scaling up drivers are in fact highly interconnected and mutually reinforcing, and scalers almost always combine these drivers as they embark on their transformation journey, even though some drivers may play a more dominant role at certain stages (Table 1.3) (OECD, 2021^[2]).

Table 1.3. Scaler profiles, scale up drivers and trajectories

Transformation model	Measurable dynamic differences from peers			Scaling up drivers at play
	Before scaling up	During scale up (and after)	Permanent differences	
<p>Disruptive innovator</p> <p>The firm develops technological innovation that translates into a competitive advantage.</p>	<ul style="list-style-type: none"> Higher share of R&D and IT workforce Higher debt 	<ul style="list-style-type: none"> Higher wage premium, productivity and profitability 	<ul style="list-style-type: none"> More workforce diversity Younger workers and management 	<p>Sudden transformation due to new products or services that provide a competitive advantage, incl. e.g.</p> <ul style="list-style-type: none"> Leveraging digital adoption to improve productivity Carrying out R&D to drive innovation Investing in Human capital (wage premium, diversity) 
<p>Gradual innovator</p> <p>The firm invests in human capital and new production processes to become more productive than its peers and gain market shares</p>	<ul style="list-style-type: none"> Higher debt 	<ul style="list-style-type: none"> Higher wage premium, productivity and profitability 	<ul style="list-style-type: none"> Higher share of educated workers Higher share of IT specialists 	<p>Gradual transformation, which requires accessing external capital (e.g. equity or bank credit) for investments in physical, human (and intangible) capital, i.e. for</p> <ul style="list-style-type: none"> training the workforce hiring specialised staff developing/protecting intangible assets adopting new management practices etc. 
<p>Demand-driven scaler</p> <p>The firm faces an exogenous and temporary increase in demand.</p>		<ul style="list-style-type: none"> Higher debt Higher wage premium More workforce diversity More low-educated and low-skilled workers Higher share of current assets 		<p>Unexpected increase in (local or international demand for a good or a service might be driven by improved access to supply chain partners or business networks</p> <p>To expand production and respond to the temporal increase in demand, the firm may need to invest in</p> <ul style="list-style-type: none"> Physical capital Hiring more staff (and retaining them) <p>Can result in further market expansion (domestically or internationally)</p> 

<p>More-of-the-same scaler</p> <p>The firm scales by producing additional output using the same business model</p>	<ul style="list-style-type: none"> • Lower productivity and profitability • Higher debt 	<ul style="list-style-type: none"> • Profitability and productivity start from a lower level and align with peers after scaling 		<p>Need for significant upfront investment, e.g. for new facilities or for building a second production line, as well as hire new staff to match expansion in production.</p>	 <pre> graph TD A[Innovation] --> B[Investment] B --> C[Network expansion] </pre>
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Source: Authors' own elaboration, based on (OECD, 2021^[2]).

Innovation, as a start, is a case in point, as it requires investments and accessing networks.

1. **Innovation remains strongly linked to multiple forms of investment**, as it results from a process of knowledge and capital accumulation, whereby firms create, acquire, and recombine innovation assets which allows them to design and introduce new products, services, or processes (OECD, 2019^[14]). To do so, firms typically need to invest in a combination of physical capital (e.g. technology, machinery and equipment), skills (e.g. firm-specific skills and know-how, new IT skills), as well as a range of intangible innovation assets (e.g. data and brands, organisational settings and processes, or business models and networks).
2. Digital adoption, for instance, not only implies investments in technical equipment such as hardware or software, but requires complementary investments in organisational changes and skills (e.g. training) to be effective. Moreover, existing evidence strongly suggests that for digital adoption to “pay off”, there is a need for digital skills to be diffused more widely across employees and managers and not be limited to ICT specialists (OECD, 2021^[59]).

Likewise, firms almost never innovate in isolation and networks of innovation involving multiple actors are the rule rather than the exception (DeBresson, 1996^[89]). SMEs therefore need access to relevant networks to source relevant knowledge, skills or equipment, and smaller firms in particular are more dependent on external knowledge obtained either through partnerships or spillovers (Love and Roper, 2015^[90]). In this context, open innovation has brought about a paradigm shift whereby business efforts are no longer confined to corporate R&D labs but increasingly emerge through collaborative efforts between business partners that interact, exchange knowledge and information and share standards and infrastructure, thus facilitating access to multiple innovation assets and making the innovation endeavour also more accessible to SMEs (OECD, 2010^[91]). **New forms of innovation can reduce SME growth investment needs and increase their networking capacity.**

1. **The rise of digital platforms has partially remedied to SME investment needs**, e.g. by enabling new models of knowledge sourcing and providing SMEs with greater access to a larger portfolio of innovation assets at reduced cost. Cloud computing for instance offers new solutions for SMEs to upgrade their IT systems without incurring upfront investment in hardware, and maintenance costs afterwards (OECD, 2021^[59]).
2. **The commercialisation of IPRs, i.e. formalised results of R&D and innovation, can create additional revenues**, or serve as collateral or guarantee for bank lenders and investors, reducing needs for financial capital.
3. **Aside from accelerating internal innovation, opening innovation has increasingly been seen as a way for expanding the markets for external use of innovation** (Chesbrough, 2003^[92]), with the phenomenon taking place at a much faster pace than in the past (Gassmann and Enkel, 2004^[93]).
4. **There is also a considerable body of empirical literature suggesting a positive link between innovation and exporting** (Love and Roper, 2015^[90]). SMEs which have a track record of innovation are more likely to export, more likely to export successfully and more likely to generate

growth from exporting than non-innovating firms. (Wright et al., 2015^[94]). Digital adoption in particular has greatly increased SME opportunities for business expansion abroad through a digitally-enabled access to international buyers, value chain partners and previously unreachable geographic markets (OECD, 2018^[82]).

SMEs can source all forms of capital through various networks, and expand their networks with their capital stock.

1. Participation in GVCs create opportunities for SMEs to absorb spill-overs of technology and knowledge, and increase physical, human and intangible capital (OECD, 2008^[33]) (OECD, 2019^[14]) (OECD, 2022^[95]).
2. Participation in GVCs can also provide SMEs with access to a broader range of financing instruments. This can include short-term trade finance instruments that enable deferred payment (e.g. intra-firm or inter-firm financing), as well as more dedicated tools such as letters of credit, advance payment guarantees, performance bonds, and export credit insurance or guarantees. (OECD, 2021^[96]) (OECD, 2021^[97]). In addition, medium- and long-term export financing instruments (e.g. buyer credits) are increasingly used as supply chain solutions for financing capital equipment. These instruments typically require longer repayment periods, with greater impact on SME scale up potential, as they enable investment in productive capital and network expansion.
3. The rise of industry, marketplace and crowdsourcing platforms has been instrumental for increasing SME access to strategic resources (finance, skills and innovation assets). Online platforms for instance enable better system interoperability and data sharing (OECD, 2017^[60]), and they provide access to software, technology or data and databases (e.g. through cloud computing services), ideas and solutions (e.g. through crowdsourcing and collaborative platforms on specialised software solutions), user and client data (e.g. through e-commerce platforms) (OECD, 2019^[14]) (OECD, 2021^[59]).
4. In turn, there is particularly strong evidence on the importance of investments in skills and capital in fostering SME exports, as well as access to liquidity and R&D (Wright et al., 2015^[94]).
5. In addition, investments in intangible assets can help SMEs open up new segments in markets and position more competitively vis-à-vis large enterprises. IPRs can provide an important signal for attracting customers and enticing venture capital investments (Holgersson, 2013^[98]).
6. IPRs and their enforcement can create a sound competition environment and secure foreign direct investment with potential for building stronger innovation linkages with domestic SMEs, either through value chains or cooperation agreements (OECD forthcoming, 2022^[99]).

Scaling up drivers are complementary and mutually reinforcing, marked by significant overlaps and interdependencies, that suggest the existence of virtuous – or vicious – circles in scaling up dynamics. The intertwining of scaling up drivers inevitably raises complexity for policy makers seeking to promote SME scaling up and presupposes the emergence of a dense nexus of interactions within the scale up policy mix.

Rethinking SME scale up policies

As there is no clear understanding on who scalers are and which types of transformations they go through, there is currently no clear and comprehensive overview of what works in promoting scale-ups. An important strand of government policy focuses on the potential of SMEs to drive future growth, especially as these firms seem also adept at recovering from recessions (Cowling et al., 2014^[100]).

The following section draws a number of policy implications for such a policy from the scale-up measurement work and literature review undertaken for this project. It offers insights for governments

interested in unleashing the potential of their SMEs to scale up, and calls for a rethinking of how scale-up policies are designed and understood.

1. Scale up policies can pay off

The microdata work and literature converge in underlining that scalers have disproportionate impacts on job and value creation. This is particularly relevant for countries and regions that may want to foster the conditions of SME growth, especially in the context of a post-COVID recovery. While not yet documented extensively, scalers' contribution to sustainability and resilience performance could also provide additional rationales for public intervention, notably to steer the green transition.

The new evidence from the microdata analysis also shows that **scalers can maintain new scale over time, and even grow again.** High growth is sustainable for the majority of them, with up to two thirds of scalers able to maintain their new size, continue to grow (20%) or even scale up again in the following three years after the initial growth phase. Even if growth is not a linear expansion and high-growth phases are episodes (Grover Goswami, Medvedev and Olafsen, 2019^[101]), most scalers that have undergone this transformation have accumulated knowledge and innovation capital and gained capacity on a permanent basis. Support for scalers may therefore continue to “pay off” beyond the high growth phase, even though some of these firms shrink or even exit the market afterwards.

2. There is a broad scaling up potential, beyond the select club of high-tech start-ups

Scalers are not all those we think they are. The measurement work provides evidence that, beyond the usual suspects, namely the young high-tech start-ups, scalers can be found everywhere, in all sectors, all places, and all firm size classes. In fact, **most of them are mature firms operating in low knowledge-intensity sectors, including services.**

This means that, by focusing on high-tech start-ups only, scale up policies may miss a long tail of other potential scalers, and all the opportunities of job creation, productivity gains, and technology and innovation diffusion, including green tech and eco-innovation diffusion, they could bring. This debate is not new. A central point in the scale up policy discussion in past years relates to the population(s) of firms that may receive scale up support in their lifetime and the right balance to achieve between “quantity and quality” (Box 1.3). The question is about whether to place the policy focus on a specific subset of firms (e.g., high-growth ventures or entrepreneurs) with the highest growth potential and whether policy can find the right way(s) to help them succeed. Today the question remains unanswered.

Box 1.3. Highly selective versus broad-based scale up policies: selected approaches

A strand of academic literature advocates for highly selective criteria in terms of target populations and growth activities, as opposed to large-scale “blanket support” for all start-ups, many of which are unlikely to grow or even survive (Shane, 2009_[102]). How such considerations of “quality over quantity” have contributed to shaping policy at country-level is documented in earlier studies on the subject.

Autio, Kronlund and Kovalainen (2007_[103]) published a catalogue of 47 growth-oriented policy measures across nine countries, in which 60% of the initiatives focused exclusively on high-growth SMEs. Despite the fact that the initiatives reviewed covered all growth stages, from pre-seed to maturity, the greatest focus is on start-up and early growth, and much less on the mature end (only 4 initiatives).

Hindle, Yencken and O'Connor (2011_[104]) argued that the Australian approach of “only” stimulating broad participation in business ownership and supporting technological innovation, knowledge transfer and commercialisation of R&D was ignoring the market trajectory challenges and other finance, human resource and infrastructure support needs that are essential for converting these firms to actual HGFs. Instead, the authors propose a framework for integrating the existing (and missing) policies implemented in a wide variety of policy areas and re-focusing them on the “right target” (the high-growth firm), while recognising that navigating between policies that pick winners and those that deal with market failure remained a delicate balancing act.

Drawing on research in Scotland, Mason and Brown (2013_[105]) offered some nuance to the debate by suggesting that the heterogeneous nature of HGFs in terms of sector, age, size and origins makes it impractical to target support on particular sectors, technologies or types of firms (e.g. new or R&D intensive). Instead, the authors propose a reorientation of high-growth policy, both in terms of appropriate targeting and forms of tailored support that would benefit a broader cohort of firms. Importantly, they stress that public policy also needs to focus on the retention of HGFs which are acquired by non-local businesses and properly reflect upon the specificities of their entrepreneurial environment when devising appropriate policy interventions.

Source: (Shane, 2009_[102]) ; (Autio, Kronlund and Kovalainen, 2007_[103]); (Hindle, Yencken and O'Connor, 2011_[104]); (Mason and Brown, 2013_[105]).

As a result, policy makers may look for scalers in the wrong place, or through a too narrow lens, and support them with the wrong measures, based on assumptions about their age, technology intensity or sectors of operations that do not reflect reality, or do not sufficiently take into account other segments of the SME population with potential to grow.

3. It is hazardous to seek to pick future winners

The lack of persistence in high growth events makes it difficult to predict which firms are going to grow (Coad et al., 2014_[50]) (Hölzl, 2009_[106]). It is therefore difficult for policy to target HGFs before their transformation. Almost all empirical models of growth typically have low explanatory and predictive power, whichever measures of growth are used (Wright et al., 2015_[94]). Windfall gains for some firms that would have grown anyway and the targeting of other entrepreneurial ventures with low growth outcomes are likely to be among the results of the policy. This raises questions for policy makers about how to select firms for targeted programmes and what level of resources to devote to them.

Firms occasionally reach critical trigger points for scale up, at which they decide to either invest in expansion, or to stay within existing capacity limits (Brown and Mawson, 2013_[107]). These trigger points are discontinuities in the growth path, e.g., the hiring of the first employee (which corresponds to a doubling

of size), crossing critical size thresholds (e.g., regarding employment protection legislation obligations), setting up a second production plant, launching a second product, taking first steps into export markets etc. Policies may seek to identify and target firms at these trigger points. However, the decision to innovate, invest, scale up or down depends on a number of market conditions, firm strategy and business owner ambitions, that serve to underline the complexity of targeting potential scale-up firms (OECD, 2019^[14]).

Evaluation results on the effectiveness and efficiency of targeted policies will be affected by growth or performance indicators used (Coad et al., 2014^[50]). If evaluation assesses jobs created as the key measure of policy success, this could disfavour HGFs that grow in turnover and achieve productivity gains (Aiginger, 2006^[108]) (Aiginger, 2007^[109]) (Bravo-Biosca, 2010^[110]). It could also be asked how to consider SMEs that achieves higher resource efficiency, productivity gains and greater profits, with stable turnover. Furthermore, in the context of moving towards a more sustainable growth, appropriate weight is needed to socio-economic benefits that may be achieved if scale-ups help tackle climate change and societal challenges.

Scaling up is affected by multiple conditions implying that it would not be sufficient for policy to target one single channel of intervention. The evidence shows that a range of structure, conduct and performance factors affect scaling up. However, much of the existing literature focuses on a single specific scale up channel or a small set of scale up channels for potential policy intervention. Furthermore, there is limited evidence on which targeted policy initiatives have the most impacts on generating scale-ups. There is a large body of evidence that examines the impact of targeted policy initiatives on SME scale up in areas such as innovation and exporting, finance, or leadership and management development (Wright et al., 2015^[94]). But, despite the considerable academic attention placed upon small businesses and their contribution to the economy over the last decades, our understanding of the drivers of business growth remains partial, and there is currently no clear and comprehensive overview of what works in promoting scale-ups.

Much remains unexplained, undermining governments' ability to design effective policy support. Much of government efforts to stimulate SME growth, while common across OECD countries and beyond, have been influenced over time by economic cycles, technological changes and the perceived market failures and barriers these firms might have to face (Box 1.4). More evidence is needed on SME growth drivers and SME policy impacts to guide future policy development.

Box 1.4. SME growth policies over time

Measures to promote SME growth are common across OECD countries and beyond. However, national approaches have evolved over time, influenced by economic cycles, technological changes and the perceived market failures and barriers these firms might have faced at different points in time.

Tackling unemployment amid 1970s-1980s recessions

In the 1980s, the concept of SME policy gained momentum, as governments came to recognise the important role of SMEs in the functioning of market economies. Academics such as (Birch, 1981^[111]) contributed to redefining the role of SMEs by documenting their major contribution to job creation in the United States (Wapshott and Mallett, 2017^[112]). In this decade, SME policies were thus mainly developed as a way to **tackle mounting unemployment** that resulted from the closure or decline of operations of large firms amid the 1970s recession (Jurado and Battisti, 2019^[113]). In Korea, for example, *The Ten-Year Development Plan for SMEs* aimed to **increase the number of SMEs** by supporting them through credit guarantee funds, SME-friendly procurement measures and tax incentives (Abdullah, 2000^[114]).

Advancing liberalisation and globalisation

In the 1990s, accelerated efforts around deregulation came to influence the SME growth policy agenda. In Australia, for example, these developments led to the creation of the 1996 *Small Business Deregulation Taskforce* that focused on **reducing the red tape faced by SMEs** in areas such as tax, labour and access to finance (Mazzarol and Clark, 2016^[115]). In addition, the definition of legal ground rules for international trade through the creation of the World Trade Organisation, together with a surge in globalisation, gave a particular focus on **improving SME international competitiveness. SME integration into global value chains (GVCs)** was supported not only through measures for greater access to export markets and related advisory and training programmes, but also through initiatives for more investments in skills and technology and innovation (Mazzarol and Clark, 2016^[115]) (WTO, 2016^[116]).

Digitalisation and innovation

The 2000s marked another shift towards broadening the scope of SME growth policy, with additional policy areas. In response to the fast internet penetration, initiatives to **foster SME uptake of e-commerce** emerged. The *Australian Electronic Business Network (AeB.N)* was created in the early 2000s. At OECD level, the *Bologna Charter on SME Policies* recommended the implementation of policies for **strengthening SME innovation** through different instruments, such as tax incentives for R&D, SME friendly procurement, access to innovation networks and access to skills (OECD, 2000^[117]).

Addressing liquidity shortages after the Great financial crisis

A few years later, when the 2007-08 financial crisis hit SMEs hard, governments introduced greater efforts on **improving SME access to finance**. At the same time, new societal concerns around climate change and responsible business conduct started gaining momentum in financial markets, with new policy efforts to support SMEs in their green transition. Green financing in particular was central in the development of SME scale-up finance policy. BPI France, the French development Bank, offered soft loans without collateral for SMEs that were implementing sustainable green practices (OECD, 2018^[118]).

Building back better after COVID-19

The most recent turn in SME policy has been caused by the COVID-19 pandemic, which favoured the implementation of policies for **accelerating the digital transformation of SMEs**, including their

capacity to operate in data-driven economies. The post pandemic recovery has reinforced policy interest in helping SMEs adopt **more sustainable business practices** as a way for them to take a central role in cutting greenhouse gas emissions and driving forward the so-called “twin transition”.

4. It needs an ecosystem to nurture scalers and a whole-of-government approach to support them

There is a high heterogeneity in the population of scale-ups, with very diverse profiles and trajectories. Some scalers start their journey by innovating and investing, then grow; others start their transformation by investing; and other eventually grow first before scaling up capacity and performance (OECD, 2021^[2]). An SME that grows fast over a short period of time typically faces several important challenges, including deep organisational changes or the adoption of new business practices. Such transformation patterns that are likely to differ across places, sectors or business models, may point to several areas in which policy support may be effective or where tackling possible market or policy failures could be critical for different types of scalers (OECD, 2021^[2]).

The diversity in firms’ growth profiles and trajectories requires scale-up policies that are equally diverse. Different profiles of scalers have different needs that also may vary across their lifetime and the different stages of their growth transformation. They will therefore face different and changing barriers in their capacity to access strategic resources, such as finance, skills or innovation assets, or to deal with evolving market conditions and business environment (OECD, 2019^[14]). This diversity opens the scope for policy intervention as governments aim to address the variety of obstacles potential scalers may face. It also largely increases the policy complexity in the field, including the need for policy action to be efficiently coordinated at different spatial levels (local, regional, national, and even supra-national).

Scale-up policies are cross-cutting by nature and could cover a large set of policy areas. The generation of scale-ups depends on many inter-linked factors. This suggests that a holistic approach is needed to stimulating scale-ups through government policy. This is indeed the case, with government scale-up policy initiatives covering a wide range of areas from targeted support for scalers (e.g. for finance, innovation, skills, internationalisation, and leadership) to developing favourable entrepreneurial ecosystems. The policy work and the related mapping undertaken in this study and in following work aims to determine more precisely which areas matter for different purposes and in different contexts, and how they could overlap.

1. The 2010 OECD survey on government programmes implemented to promote the fast growth of small firms provided, for instance, evidence that governments were giving strong –but different–emphases to improving the business environment and cutting red tape, promoting innovation, including digital and non-tech innovation, improving entrepreneurship education and promoting internationalisation (Box 1.5) (OECD, 2010^[76]).
2. There is also solid evidence that burdensome regulation can limit SME scale-up potential (Andrews, Criscuolo and Gal, 2015^[119]).
3. Existing evidence on SME growth also suggests that policies aiming to improve SMEs’ management skills, their access to infrastructure, to international markets, public procurement, as well as to human capital and skills, helps spur their growth (Klat, Makki and Rizk, 2018^[120]) (Tewari, Skilling and Kumar, 2014^[121]).
4. Coad et al. (2022^[122]) identify a number of areas of HGFs support, with potentially conflicting priorities (Bradley et al., 2021^[123]) and whose links to HGFs may not be immediately obvious (Acs et al., 2016^[124]). Those include i) access to finance (with a multiplicity of available options for HGFs financing); ii) innovation (from R&D support, to protection of intellectual property rights –IPRs–, to academic entrepreneurship, to business incubators); iii) skills and capabilities, ranging from

investments in STEM (Science, Technology, Engineering, and Medicine) education, to mentoring and influence on public attitudes; iv) labour market regulation including employment protection, size-contingent regulation and activation policies; together with various other areas relating to immigration, tax, or trade policies etc.

In addition, HGFs have urgent needs, rapid growth is accompanied by higher costs, and scale up policies intervention need to act fast (Coad et al., 2022^[122]).

Box 1.5. The 2007-08 OECD survey on policies for fast growth of small firms

In the framework of its 2007-2008 Programme of Work, the OECD Working Party on SMEs and Entrepreneurship (WPSMEE) – now the OECD Committee on SMEs and Entrepreneurship – undertook a study on *High-Growth SMEs, Innovation, Intellectual Assets and Value Creation*. As part of this study, the Secretariat conducted a policy survey on government programmes aiming to promote the fast growth of small firms, and in particular their ability to innovate through the management of their intellectual assets (IA).

Twenty-two members and two observer countries responded to the survey, which was organised across seven main policy areas. The total number of reported programmes amounted to 346, with roughly half of them targeted specifically at SMEs (see Table 1.4).

Table 1.4. Number of reported programmes: Summary by policy area

Programmes aimed to	Target		Total
	All firms	SMEs	
Improve access to financing	24	56	80
- By debt finance	8	32	40
- By equity finance	18	29	47
Stimulate enterprise innovation	47	27	74
Foster the growth or high growth of SMEs	36	36	72
Support business R&D in enterprises	38	17	55
Facilitate enterprise collaboration and open innovation	39	16	55
Promote skill development in enterprises	17	34	51
Develop IAs and IPR management capabilities	10	20	30

Note: Programmes could be classified as responding to one or several of the above categories.

The survey responses served as a basis for the preparation of a final report, which provided a synthetic, cross-country view of policy orientations. More specifically, the following key findings emerged:

- Strong focus on **improving the business environment and cutting red tape**, with many of these measures focusing on start-ups, especially to facilitate the establishment of a company;
- Efforts to **promote innovation, especially R&D activities** in many countries, with several setting spending objectives (e.g., as a % of GDP) at national level;
- Policies for the **promotion of innovation increasingly covering non-technological innovation**, including e.g., innovation in the service sector or in terms of organisational issues;
- **Digital information and communications technologies (ICT) as a focus of policy support** in some countries;
- Strong emphasis on **entrepreneurship education**, not only to provide necessary skills and tools to entrepreneurs, but also to create a business-friendly culture in the country;

- **Internationalisation as a core area for policy promotion**, with many countries recognising the challenges and opportunities arising from an increasingly globalised and knowledge-intensive world economy.

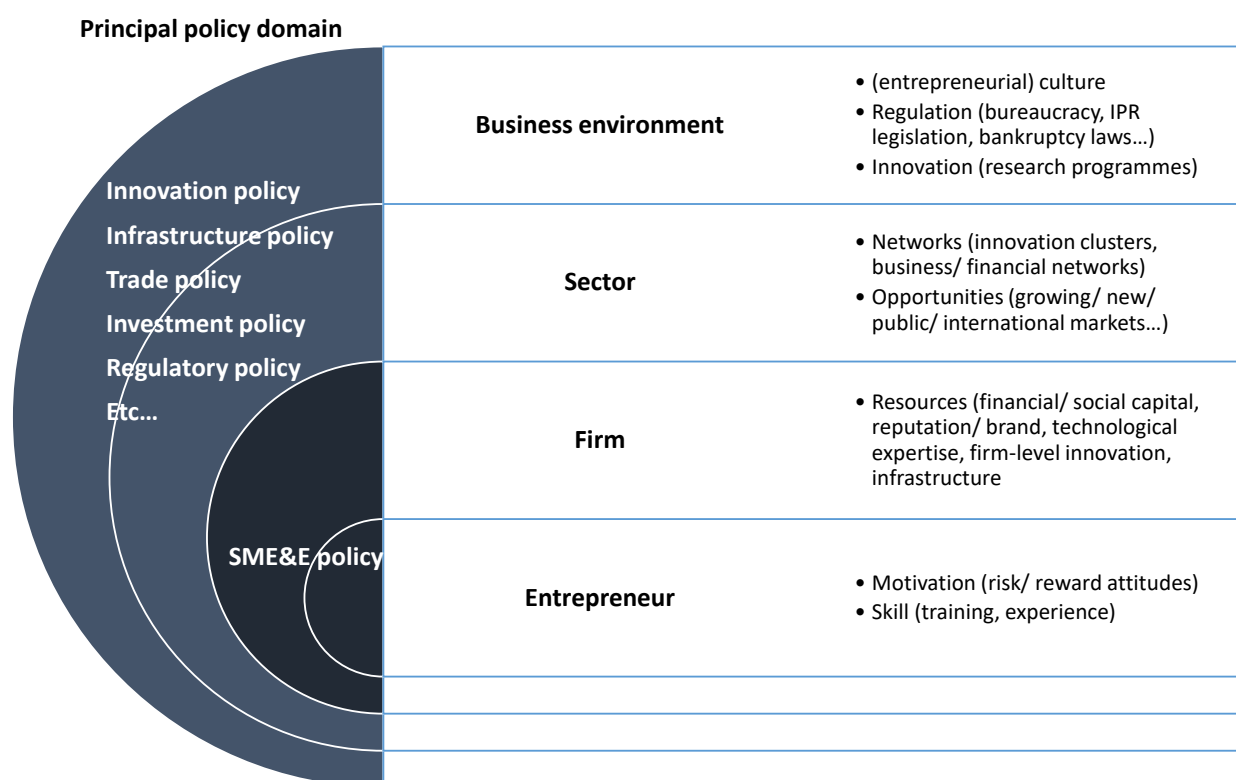
Overall, survey responses pointed to an increased recognition of the strategic importance of enterprise growth and the priority governments were attaching to this issue as part of their policy packages, albeit with different emphases.

Note: Responding member countries to the survey included Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Greece, Hungary, Ireland, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand, the Slovak Republic, Spain, Switzerland, Turkey and United Kingdom; and two (back then) observers, Israel and Romania.

Source: (OECD, 2010_[76])

At the same time, scale up policies are shaped by a local, cultural, and industry context that can influence the business conditions, the scaling up process and the willingness of firms to transform. This suggests several possible levels of intervention for scale up policy makers, at micro-, meso- and macro levels, with each level carrying its own peculiarities, constraints and norms (Figure 1.5).

Figure 1.5. Levels of intervention for SME Scale Up policy



Source: Author's own elaboration, based on (Autio, Kronlund and Kovalainen, 2007_[103]).

Consequently, governments are increasingly focusing policy efforts on improving the overall ecosystem for scale-ups. Evidence suggests that simply creating supportive framework conditions is insufficient for stimulating scale-ups. Similarly, transactional forms of support (e.g., financial assistance) are equally proving to have limited effectiveness, at least post-start-up (Mason and Brown, 2014_[125]). The

entrepreneurial ecosystem approach seeks to combine measures affecting the business environment and access to resources for start-ups and scale-ups and has been famously advocated for in entrepreneurial movements championed by the Scale Up Institute in the UK, Babson College in the US, and several other institutions aiming to promote a culture of high growth across all actors in the entrepreneurial chain (Isenberg and Onyemah, 2016^[126]).

In particular, it is expected that successful entrepreneurial ecosystems trigger a virtuous circle in which ‘success breeds success’ (Quas et al., 2021^[127]), promoted by entrepreneurial recycling whereby successful cashed out entrepreneurs reinvest their time, money and expertise in supporting new entrepreneurial activity (Mason and Harrison, 2007^[128]). **Policy intervention in support of scalers needs therefore to account for the diversity of business profiles and trajectories, as well as the complex mix of systems that can affect their business conditions and incentives to grow** (e.g., national versus regional innovation system, research system, entrepreneurship system, trade and global value chains systems etc.). For instance, the EC Start-up and Scale up Initiative brings together a range of actions from diverse policy areas to create a more coherent framework to allow start-ups to grow (EC, 2016^[129]).

Scaling up policies cannot be designed in isolation within a policy domain but require a holistic approach in policy making. The interconnectedness of such policies that tend to cut across ministries, departments, agencies and levels of government also requires gathering more insights on effective whole-of-government approaches and horizontal and vertical coordination mechanisms.

Framing, scoping and mapping scale up policy

Compiling findings from the measurement work and a literature review, three main SME scaling up drivers have been identified for the purpose of this project, that can be further decomposed into seven sub-drivers (Figure 1.4):

- **Innovation** (including research and development - R&D- and disruptive innovation, digital adoption, or business development),
- **Investment** (including in physical capital, skills or intangible assets), and
- **Network expansion** (e.g. in the domestic market, through internationalisation, or cooperation and strategic partnerships, or through the use of digital platforms).

Building on the evidence and conceptual considerations outlined thus far, this project defines **scale-up policy as the range of public policy interventions that seek to promote SME scale up through improved conditions and incentives for innovation, growth investment and network expansion**, understood herein as the three main scaling up drivers. SMEs that scale up typically mobilise a combination of these drivers, yet their sequencing might differ, depending on a complex mix of factors related to scalers’ profiles and their overall transformation model.

The following section proposes a broad approach for scoping scale up policies and an analytical framework for mapping the national policies and institutions in relevant policy areas. The policy mapping supports a better understanding of what countries are doing for promoting SME scaling up. This analytical framework supports a series of thematic reports on scale up policies, including for improving SME access to scale up finance (Chapter 2) and better SME data governance (Chapter 3).

The scope of the policy work is intentionally broad, so as to capture the “ecosystem of policies” which shape the conditions and incentives of SME scaling up (Box 1.6). Scale up policy is at the intersection of a large number of policy domains that may act upon the scaling up drivers, i.e. innovation, business R&D, SME digitalisation, entrepreneurship, skills, IPRs, trade, investment promotion, procurement or cluster policies etc.

Box 1.6. Understanding country approaches to promoting SME scale up: a pilot policy work

As part of the EU-co-funded OECD multi-year project on *Unleashing SME Potential to Scale Up* (Box 1.1), the policy work consists of a cross-country analysis of relevant national institutions and policy initiatives implemented in OECD countries to create the conditions and incentives for SMEs to scale up. More specifically, the policy pillar aims to understand what shape scaling up policies take in countries, as well as to identify and characterise typologies of policy practices at national level, while paying attention to synergies and trade-offs across policy measures by placing a focus on coordination and governance mechanisms. The cross-country analysis also aims to identify possible gaps in public intervention.

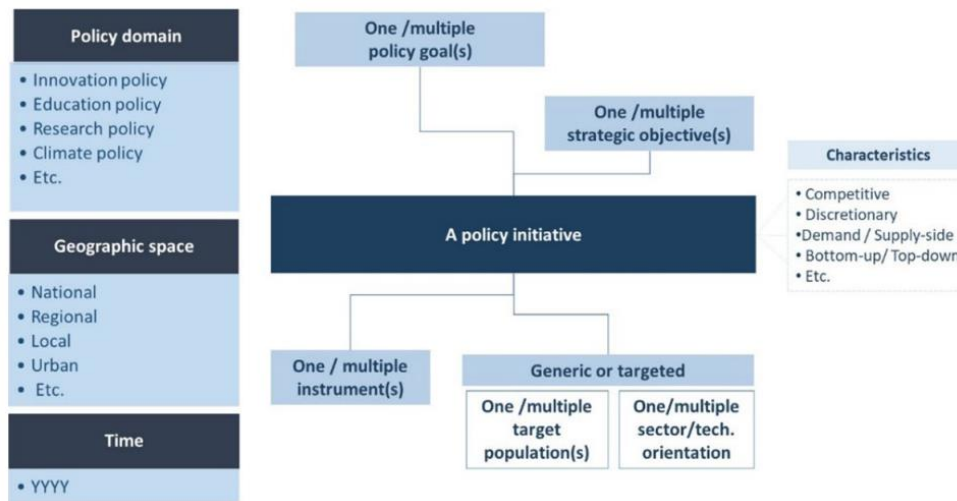
The analysis in this pilot phase builds upon a systematic policy mapping in two areas identified through the measurement work (Box 1.2) as drivers of scaling up, namely SME access to ‘scale-up’ finance (Chapter 2) and SME data governance (Chapter 2). The respective analytical frameworks were developed based on state-of-the-art knowledge in each field, and then refined after several iterations of “test mapping” in a selected number of countries. The analytical scope is intentionally broad, so as to capture the “ecosystem of policies” which shape the conditions of SME scaling up in the two selected domains. The scope of the policy analysis goes therefore beyond venture capital for financing SME growth or beyond the use of big data analytics for improving SME data governance.

Source: <https://www.oecd.org/cfe/smes/sme-scale-up.htm>.

Policy initiatives are selected to the extent that they **explicitly aim to promote SME scaling up drivers (innovation, investment, network expansion) or sub-drivers**. In the context of this exercise, specific attention has been placed on SME-targeted policies, including specific sub-segments of the SME population. An attempt has been made to put these targeted policies in relation to non-targeted policies.

The policy mix concept is central to the mapping exercise, as it seeks to capture the set of policy rationales, governance arrangements and policy instruments that are mobilised to promote SME scaling up, as well as the interactions that can take place between these elements. In practical terms, the approach requires (i) identifying the components of the policy mix (relevant policy initiatives in place), their characteristics and relative balance, and (ii) specifying the areas where these components might interact, be it intentionally or unintentionally (Meissner and Kergroach, 2019_[130]). Interactions may take the form of complementarities, reinforcing the effectiveness of other policies in the mix, trade-offs attenuating the impact of each policy, but can also be neutral and may occur within or across different dimensions such as policy domains, policy objectives, targets, or policy instruments (Rogge and Reichardt, 2016_[131]) (Borrás and Edquist, 2013_[132]) (Flanagan, Uyarra and Laranja, 2011_[133]) (OECD, 2010_[134])

Figure 1.6. Characteristics of a policy initiative



Source: (Meissner and Kergroach, 2019^[130]).

The policy mapping therefore uses the following operational principles (Figure 1.6).

1. A **policy initiative is understood as a public action that aims to achieve one or several policy goal(s)**, either by modifying the behaviours of actors/ stakeholders who are part of (or influence) the national SME and entrepreneurship (SME&E) sector, or by altering the governance of the SME&E policy system as a whole;
2. A **policy initiative presents a number of characteristics along which it could be described**. Each initiative can serve one (or several) policy purpose/goal(s), follows one (or several) strategic objective(s), be aimed at one (or several) target(s) population(s), sector(s), technology(ies), and makes use of one (or several) policy instrument(s).
3. The work focuses on policy initiatives that are implemented over **a set time horizon or on a continued basis** and that do not represent one-off events or emergency measures (e.g. in response to the health crisis), unless they have a transformational objective, such as the recovery packages and structural measures (e.g. related to the digital or skills agenda) put in place to build back better;
4. The **level of policy intervention is national**, however whenever international policy frameworks or regional initiatives are relevant to the topic and/ or a country they may have been taken into account;
5. **Information on public institutions involved and related institutional and governance arrangements**, including budgets earmarked or evaluation mechanisms when available, are also collected as components of the national policy mix, as well policy coordination through joint programming.

The policy mapping builds upon the OECD Framework for Evaluation of SME and Entrepreneurship Policies and Programmes (OECD, 2008^[135]), the analytical framework of the OECD SME and Entrepreneurship Outlook (OECD, 2019^[14]), as well as previous OECD work on mapping and monitoring policies for science, technology and innovation (EC/OECD, 2017^[136]); (OECD, 2016^[137]); (Meissner and Kergroach, 2019^[130]) which builds on similar mapping exercises (EC/OECD, 2021^[138]) (UNESCO, 2018^[139]) (EC/OECD, 2016^[140]) (OECD, 2012^[141]) and serves as a basis from structuring the information collected. The mapping methodology is aligned with a similar mapping conducted under the aegis of the OECD Committee on SMEs and Entrepreneurship and the OECD Investment Committee, to identify policies

aiming to strengthen linkages and spillovers between foreign direct investment and SMEs in EU countries (OECD, 2022^[95]).

Information is drawn from official sources (e.g., national strategies, action plans, websites of relevant Ministries and agencies, etc.), as well as OECD reports, through desk research. Information is collected at institutional level, which means that relevant institutions in the policy areas under review are identified first, then the relevant policy initiatives they administrate (alone or through joint implementation with other institutions) are identified second. The information collected is structured and encoded, and made available through an online interface for the purposes of easing consultations and enabling re-use. Further details are provided in Box 1.7. The complete templates used to map and report on institutions and policies can be found in Annex 1.A and Annex 1.B.

Box 1.7. Operational definitions for the policy mapping

Policy domain. A policy domain refers to the space (or area) where a variety of policy sub-systems for promoting the performance and business conditions of SMEs interact. Each sub-system is characterised by different sets of norms, actors and institutions, focuses on distinct policy issues (such as employment, productivity, industrial transition, local development, etc.), and administrates specific policies on these issues. A major governance challenge consists in breaking ‘in silos’ thinking and ensuring different policy sub-systems interact positively within a same policy domain (e.g. entrepreneurship policy domain).

SME&E strategic objectives. Governments seek to achieve specific and diverse objectives, including for instance strengthening SME capacity to perform R&D and innovate, or to export etc. Strategic objectives typically address particular issues of the SME&E policy domain (e.g. easing business entry and exit), specific actors or groups of actors (e.g. small firms, start-ups, entrepreneurs etc.), or specific processes (e.g. knowledge exchange, innovation diffusion, digital adoption etc.). In some cases, strategic objectives are translated into concrete and measurable targets, usually bound to a specific time horizon (e.g. ensuring 100% SMEs are connected to high-speed broadband by 2020).

Policy target. Policies are targeted at specific target groups, e.g., at one (or several) firm populations (e.g., SMEs, start-ups, micro enterprises, etc.) or one (or several) groups of individuals (e.g., venture capitalists, entrepreneurs, women etc.). They can also be targeted at specific economic sectors, technologies or geographic areas. In fact, many policies cumulate such targets in their design and implementation.

Policy instrument. Policy instruments are identifiable techniques for public action and the means for accomplishing the objectives they are designed for. By combining policy instruments, policy makers aim to cumulate – or multiply – the positive externalities that each instrument taken separately could bring. A more diverse policy toolbox adds however to the complexity of managing (sometimes negative) interactions and evaluating impact, especially since there is a wide consensus among policy and academic communities that policy instruments are context- and time-specific and should thus be customised to the nature of the problem they intend to address. Toolkits in use include the following typologies of instruments (Kuhlmann and Smits, 2004^[142]) (OECD, 2008^[135]) (Vedung, 1998^[143]):

Financial support: Economic and financial instruments (“carrots”), such as grants, subsidies or tax concessions, are pecuniary incentives.

Regulation: Regulatory instruments (“sticks”) are legal tools that set ‘the rules of the game’. They include, for example, laws and binding regulations.

Non-financial support: Non-financial and “soft” instruments (“sermons”) are voluntary and non-coercive tools, such as information and awareness campaigns, guidelines and diagnostic tools, or

technical norms. This type of instruments transforms the role of governments from a regulator and support provider into a coordinator and facilitator.

Platforms & networking infrastructure: “Systemic” or system-enabling instruments such as interfaces, platforms, infrastructures or networking facilities that enable interactions and facilitate knowledge flows and exchange. System-enabling instruments also support public governance through e.g. policy learning, experimentation and debate.

Policy governance: Meta instruments, i.e. national strategies or action plans, but also benchmarking, scoreboard, technology foresight, impact assessment or peer reviews etc., which provide strategic intelligence to policy makers. They differ from other instruments for their reflexive function and because they do not aim to change actors’ behaviours, but rather to inform and structure the policy process.

Policy/ institutional governance. This refers to the institutional and governance structures and arrangements that underpin policy making, from design, to implementation to evaluation. These governance arrangements are very country-specific. In practice, the design and governance of policies may cut across several governance levels and policy domains that fall under the responsibility of different Ministries and agencies, raising the question of horizontal and vertical policy coordination. This is particularly likely for scale up policies that are diverse and cross-cutting by nature.

Issues of across-the-board coordination are typically of high relevance when SME&E policy is thought as a combination of targeted and mainstreamed initiatives, i.e. :

Targeted policies identify explicitly SMEs as beneficiaries, e.g. as recipients of financial or non-financial support, targets of new regulation, or main beneficiaries of networking facilities. Targeted policies can be formulated and administrated by an organisation other than the main Department/ Ministry/ Agency in charge of SME&E policies (e.g. eco-innovation programmes by the Department in charge of environmental affairs promoting eco-innovation in SMEs);

Mainstreamed policies aim to influence SME&E performance and business conditions and are designed and delivered by Departments/ Ministries or Agencies that do not have SMEs and entrepreneurship as their prime (or even partial) focus (for instance urban transport policies that aim to improve smart mobility infrastructure and that are likely to improve the SME&E ecosystem). Mainstreamed policies can also intend to shape broader framework conditions, applying equally to all firms or stakeholders – albeit often with a differential impact on SMEs.

Source: Adapted from (Meissner and Kergroach, 2019^[130]).

Conclusion

SMEs and start-ups that grow fast have attracted increasing policy attention for their exceptional performance and contribution to job creation and the competitiveness of countries and regions.

Public policies accordingly have tried to focus on those firms with the highest growth potential, often by targeting firms in very narrow (tech-related) sectors. However, despite strong policy interest, sometimes coming with large budgetary support, the conditions for SME scale-up remain poorly understood.

The multi-year project on *Unleashing SME Potential to Scale Up* was launched to better understand the drivers and conditions of SME growth and how governments are effectively promoting SME scaling up in a sustained manner (OECD, 2022^[144]). The study focuses on high growth firms (HGFs) as defined as enterprises with at least ten employees at the beginning of the period, and over 10% (or 20%) growth in employment or turnover per annum averaged over a three-year period. The threshold of 10% is retained in this pilot phase of the project, whereas future analysis will aim to apply both.

Attention is placed in particular on the sustainability of a new scale, i.e. the capacity of a firm to operate, in a durable manner, at a higher level of performance, which eventually expresses itself in high growth (being in terms of turnover and/or employment).

A measurement pillar builds on business microdata and empirical work to identify the profiles of scalers and their trajectories; a policy pillar builds on policy analysis and international benchmarking of country approaches to promoting SME scaling up through a mapping of relevant initiatives and institutions across the 38 OECD countries. For the pilot phase (2019-21), the measurement work has leveraged the microdata of five countries, i.e. Finland, Italy, Portugal, Slovak Republic and Spain, while the policy work has focused on two policy areas, i.e. SME access to scale up finance and SME data governance. Findings from the measurement are available in (OECD, 2021^[2]) and have supported the design of the policy work. Findings from the policy work are presented in Chapters 2 and 3 of this report.

This report provides the foundations of a series of policy reports on promoting SME scaling up. It sets conceptual bases for understanding scale up policies and draws policy implications, building on academic literature and new evidence from the microdata work (OECD, 2021^[2]). It also proposes an analytical framework to monitor and benchmark how countries effectively promote SME scaling up. This framework serves as a common basis for mapping the policies and institutions involved in scale up policy across OECD countries, and to understand commonalities and specificities in country approaches across in different areas.

Firm size, (high) growth and performance appear to be closely related concepts. Size is commonly measured by sales and employment, which increase when SMEs can achieve economies of scale by internalising operations, or adapt to market conditions through a range of strategies, including innovation, investment, market expansion or differentiation, and competition, cooperation or collusion. There are different criteria of firm performance that are often interrelated, e.g. productivity, profitability, mark-ups or market shares etc., but other measures associated to more sustainable business practices have become increasingly relevant to SME performance as well, e.g. ESG scoring.

New evidence highlight that scalers are not all those we think they are. The typical scaler is neither a knowledge- nor tech-intensive firm. The majority of them are mature SMEs (six years old and over) operating in low-tech services. In addition, size appears to be no barrier to high growth, and scalers can be found in all places. This means that there is broad scaling up potential and possible spillovers across different types of firms and contexts, and beyond the segment of high-tech start-ups.

Scaling up often implies an inner transformation of the firm, grounded on multiple forms of productivity improvements, improvements that are driven by a combination of innovation, investment and network expansion. Highly interconnected and mutually reinforcing, these scaling up drivers are mobilised in different ways and at different times by different types of scalers. Findings also show that **scalers can maintain new scale over time, and even grow again**, which means that most of them have undergone this transformation and gained capacity on a permanent basis.

These findings call for rethinking scale up policies and opening the policy toolkit. If policy makers focus on high-tech start-ups only, they could look for scalers in the wrong place, or through a too narrow lens, and support them with the wrong measures. The diversity in SME growth profiles and trajectories also requires policies that are equally diverse, and a holistic approach in policy making, as targeting one single channel would not be sufficient to stimulating scale-ups. Scale-up policies can therefore cut across multiple policy domains and range from targeted support (e.g. for financing, skills, or access to innovation assets) to developing favourable entrepreneurial ecosystems, to improving the governance of the entire SME growth policy system. They also likely imply a greater need for policy action to be efficiently coordinated at different spatial levels (local, regional, national, and even supra-national). What falls under the umbrella of scale up policy cannot be taken for granted, and may even differ from one country to another. For instance, restricting scale up finance to venture capital might typically limit the scope of public action to high-tech start-ups.

At the same time, if scale up policy can pay off, it is hazardous for policy to seek to pick future winners and engage large public resources on assumptions of age, technology intensity or sector of operation that may not fully reflect (future) reality. Complexity arises from the heterogeneity of scalers' profiles and trajectories, and a nexus of market conditions and local, cultural, and industry contexts that can influence the scaling up process, firm strategy, business owner ambitions and the willingness of firms to transform. Complexity also arises from the superposition of policy systems. It is therefore difficult to predict which firms are going to grow, and target them before their transformation.

Finally, the close relationship between SME high growth/scale up and performance raises a number of broader questions. Scalers are of great interest for policy makers for the socio-economic benefits they could bring because high growth signals significant (ex ante or ex post) improvements in their individual performance that can compound into improved performance at aggregate level, e.g. more jobs, innovation or productivity.

The first question relates to the choice and use of different performance indicators for policy making. If jobs created are the key measure of policy success, HGFs that grow in turnover and achieve productivity gains could be disfavoured, as employment and turnover can possibly be disconnected. It turns then to be essential to look at high growth through both employment and turnover lens when data allows.

A second question relates to the co-existence of multiple profiles of scalers with different transformation models and trajectories. It could be asked if, from a policy making point of view, all scalers are equal. Some scalers may bring greater socio-economic benefits as they engage into more structural and disruptive transformations than others that would adapt to sudden windfall in demand or maintain "the more of the same" business model and capacity. More evidence would be needed to understand the respective contribution of different scalers to different policy objectives.

A third question relates the existence of trade-offs between different forms of performance. SMEs may not improve all forms of performance, and related capacity, at the same time. For instance, SMEs' performance is increasingly associated with sustainable business practices, e.g. from improving resource efficiency, to reducing environmental footprint, to raising ability to comply with ESG requirements and RBC standards. The greening of SME business operations may require substantial investments that are likely to weigh down on their profits and their capacity to finance (other forms of) innovation. In addition, greener and more sustainable business practices may not translate into employment or turnover growth (at least in the short run). It could be asked how to consider non-scaler SMEs that achieve higher resource efficiency, productivity gains and greater profits, with stable turnover. In those cases, decoupling economic activities with the use of resources, that is a desirable policy outcome, might not be reflected in the notion of scale up and might not be supported through scale up policy. In the context of moving towards a more sustainable growth, mainstreaming environmental and societal considerations upstream in the scale up policy agenda might be essential though, as well as giving appropriate weight to socio-economic benefits that may be achieved if scale-ups help tackle climate change and societal challenges.

Overall, much remains unexplained, and more evidence is needed. The project understands scale-up policy as the range of public policy interventions that seek to promote SME scale up through improved conditions and incentives for innovation, growth investment and network expansion. The scope of the work is intentionally broad, so as to capture the "ecosystem of policies" which shape the conditions and incentives of SME scaling up. The policy mix concept is central to the mapping exercise, as it seeks to capture the set of policy rationales, governance arrangements and policy instruments that are mobilised, as well as the interactions that can take place between these elements.

This work provides the foundations of a series of future policy reports on SME scaling up.

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Notes

¹ Exemplary of these developments is the EC President Ursula von der Leyen’s 2022 State of the European Union address, where she announced a new package of support measures for SMEs, the “SME Relief Package”, aiming to tackle a broad set of issues related to combating late payments, cutting red tape and unblocking new funding for the greening, digitalisation, and upskilling in SMEs (European Commission, 2022_[206]).

² Growing in employment at a rate of 10% per annum averaged over a three-year period. The rate of medium- and high-growth enterprises across 21 OECD economies with available data in 2018. Data extracted from [OECD.stat](https://stats.oecd.org/Index.aspx?DataSetCode=SDBS_BDI_ISIC4), Structural and Demographic Business Statistics (SDBS) Database: SDBS Business Demography Indicators (ISIC REV. 4), https://stats.oecd.org/Index.aspx?DataSetCode=SDBS_BDI_ISIC4.

³ Examples from other countries include the United Kingdom, who in its 2021 budget announced plans the creation of a new GBP 375 million fund to scale up the most innovative R&D-intensive businesses (UK, 2021[4]). In addition, Transatlantic Canada has earmarked CAD 360 million to launch a National Quantum Strategy and grow its quantum-ready companies. An additional CAD 165 million aims to support Canadian innovators, start-ups, and technology-intensive businesses to better use their ideas and intellectual property as the seeds of huge future growth opportunities (Canada, 2021[5]).

⁴ Participants in the 2018 OECD SME Ministerial Conference on “*Strengthening SMEs and Entrepreneurship for Productivity and Inclusive Growth*” identified a diverse set of enabling conditions and potential barriers, which may vary according to the local and national business environment, institutional and regulatory framework, infrastructure and firms’ access to strategic resources, such as skills, knowledge, data, technology and finance. They also acknowledged the role of growth ambitions (or lack thereof) of the entrepreneur as an important determinant for SME scale up (OECD, 2018_[148]).

⁵ A more detailed summary of the project’s microdata work can be found in Annex 1.C, based on (OECD, 2021_[2]).

Annex 1.A. Template for mapping institutions

COUNTRY	Country name	Drop-down menu (single choice)
INST1	Institution name	Open-ended text
INST2	Institution in brief	Open-ended text
GOV1	Parent institution	Yes/ No (single choice) Is this institution tier-1 level of public governance?
GOV2	Parent institution	Open-ended text
LEV	Level of governance	Single choice - National or federal level - Subnational level - Other (specify as open-ended text)
STAT	Status	Single choice (if LEV= National) Ministry or department Directorate/unit within ministry/department Autonomous government agency Public-private agency Other (specify as open-ended text) Single choice (if LEV= Subnational) - Subnational government institution Local autonomous government agency Local public-private agency Other (specify as open-ended text)
MAN1	Core mandate	Multiple choice (unlimited) SME and Entrepreneurship policy Innovation policy (incl. digital) Competition policy FDI/investment promotion policy Trade policy Regulatory policy and public administration reform Tax policy Financial and monetary policy Labour policy Education policy Social and welfare policy (incl. inclusiveness) Infrastructure policy (transport, energy, digital) Regional and local development policy Land and housing policy Environment and climate policy Other (specify as open-ended text)
MAN2	Core mandate in brief	Open-ended text

Source: Authors' own elaboration.

Annex 1.B. Template for mapping policy initiatives

COUNTRY	Country name	CODE ISO3
POLICY1	Policy name	Open-ended text
POLICY2	Policy in brief	Open-ended text
TIME	Timeframe	Multiple choice - Start year (specify YYYY) - End year (specify YYYY) - Open ended (specify as open-ended text)
OBJ1	Strategic Objectives SME&E	Multiple choice (7 maximum) - Improving SME internal capacity and access to strategic resources (not clickable) Access to finance Access to skills Access to innovation assets - Improving SME&E business environment (not clickable) Institutional and regulatory framework Market conditions Infrastructure - Improving SME&E policy governance (clickable)
PROJ	Source project	Single choice (1) - SME access to scale up finance - SME data governance - FDI-SME linkages
OBJ2	Strategic Objectives project	Multiple choice (see dedicated typologies for each project)
OBJ3	Strategic Objectives in brief	Open-ended text
INSTR1	Instruments	Multiple choice (5 maximum) - Financial support - Non-financial support - Platforms and networking infrastructure - Regulation - Public policy governance
INSTR2	Instruments in brief	Open-ended text
TARGET1	Targeted or generic initiative	Yes/No (single choice) Is this policy initiative targeted? - No, it is generic. - Yes, it is targeted towards ... (please tick relevant cases below)
TARGET2	Target types	Multiple choice (5 maximum) - Population (IF YES TARGET3) - Sector or supply chains (specify as open-ended text) - Technology (specify as open-ended text) - Region or place (specify as open-ended text) - Other (specify as open-ended text)
TARGET3	Target population	Multiple choice (17 maximum) - All SMEs - SMEs with size criteria (turnover or employment) - SMEs with growth or performance criteria (HG, scalars, laggards etc.) - SMEs with age criteria (start-ups, young, incumbents etc.) - Large firms or leading actors in sectors/ value chains/ ecosystems - Multinationals

		<ul style="list-style-type: none"> - Universities or public research institutions - Government institutions - Business associations, chambers of commerce and other stakeholders - Investors (business angels, VCists or VC funds, banks, financing institutions etc.) - Entrepreneurs - Business owners or managers - Women - Youth - Minorities - Individuals with specific skillset (highly skilled, IT specialists etc.) - Others
TARGET4	Target in brief	Open-ended text (make sure sector/ tech/ place are specified as well as other types of population if relevant)
INST1	Joint action	Yes/No (single choice) Is this policy initiative jointly administrated or implemented? (IF YES INST2)
INST2	Institution(s) in charge	Drop-down based on the institution mapping (single choice) Report all other institutions involved in administration and policy making. Add institutions to the institution mapping if needed.
INST3	Institution(s) in charge in brief	Open-ended text to explain respective responsibilities in case of joint programming or coordinated implementation, or different functions in the policy cycle
INIT1	Umbrella initiative	Yes/No (single choice) Is this initiative part of a broader strategic action plan?
INIT2	Umbrella initiative in brief	Open-ended text
EVAL1	Evaluation	Yes/No (single choice) Has the policy initiative been evaluated? (IF Yes EVAL2)
EVAL2	Evaluation in brief	Open-ended text and links if available
BUDG	Budget	Open-ended text
LINKS	Additional information on the initiative	Open-ended text for <ul style="list-style-type: none"> - Websites and links - Emails and contact person(s) - Final comment
NOTES	Internal notes for tracking and coordination	Open-ended text

Source: Authors' own elaboration.

Annex 1.C. Lessons from microdata work

A small number of “scalers” create the majority of new jobs. In Finland, Italy, Portugal, the Slovak Republic and Spain, the five pilot countries of the project, HGFs (employment-based) represent 13-15% of non-micro SMEs only, but created between 47%-69% of new jobs generated between 2015 and 2017. Among scalers, those that grow faster than 20% annually account for about one-third of all scalers, but over half of the jobs created by scalers. **HGFs in turnover contribute even more disproportionately to job and value creation.** Scalers in turnover are about 50%-80% more numerous than scalers in employment. They also contribute to more than half of gross job creation and between 51% (in Spain) and 71% (in Finland and Portugal) to growth in total sales by non-micro SMEs.

Scalers: who are they? Not who you think they are...

Findings from the microdata work provide new evidence on the characteristics of firms that experience high growth (in employment or turnover), shedding light on the characteristics and transformation pathways of scalers (Annex Table 1.C.1) (OECD, 2021^[2]).

Annex Table 1.C.1. What we knew and what we learned about scalers

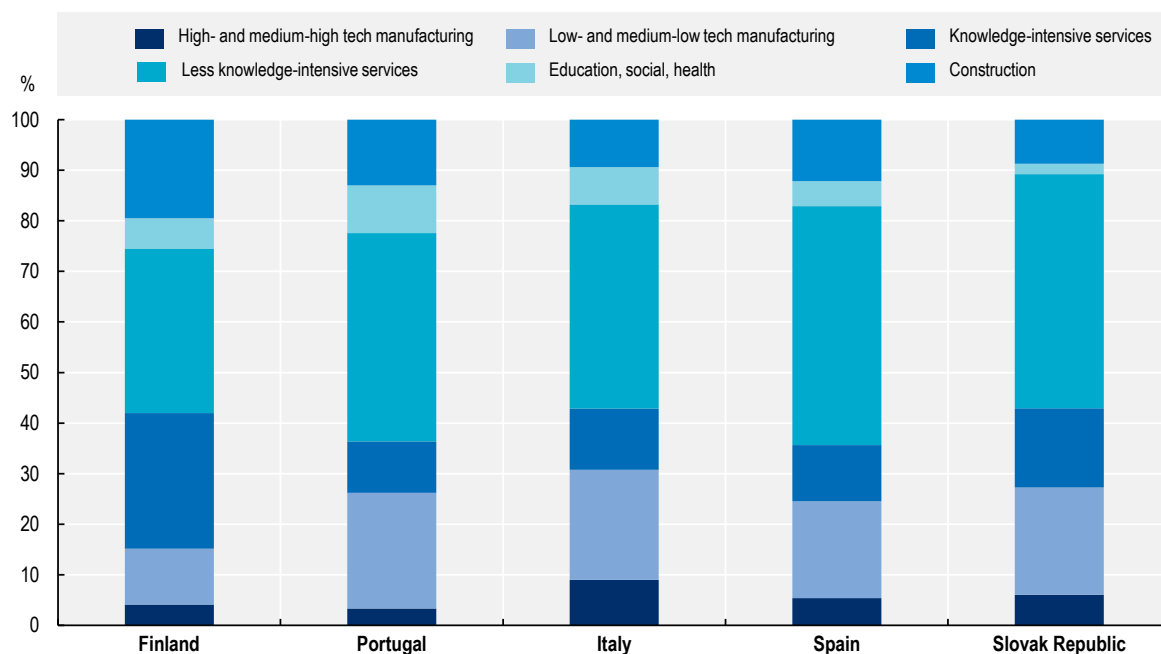
What is known	What we learn
The share of scalers differs across countries and sectors.	Scalers contribute more than half of job and value creation across all pilot countries.
The typical scaler is not a high-tech firm.	Most jobs created by scalers come from mature scalers operating in less knowledge-intensive services.
For many scalers, high growth is an isolated episode in their lifetime.	Scaling is sustainable. Three years after scaling, the majority of scalers maintain the new size or continue to grow at a slower pace.
Scalers appear to be “one-hit wonders” as it is hard to predict which firms will grow fast.	Many scalers start transforming before growing, e.g. by investing more in innovation or by accessing global markets.

Source: (OECD, 2021^[2]).

The typical scaler is neither a knowledge-intensive nor a high-tech firm (OECD, 2021^[2]). While the propensity to scale up is highest in knowledge-intensive services, firms in this sector account only for a small share of all SMEs. As a result, less knowledge-intensive services or low/ medium-low tech manufacturing account for a higher share of scalers, even if firms in these sectors are characterised by an overall lower likelihood to scale. For instance, more than one-third of employment HGFs in Portugal (38%) and close to half (46%) of employment HGFs in Spain operate in less knowledge-intensive services (Annex Figure 1.C.1).


Annex Figure 1.C.1. Most scalers operate in less knowledge-intensive services

Share of (employment-based) scalers by main sector of activity, 2018



Note: For each country, the chart reports the average share of high growth firms of a given sector group among all high growth firms. Employment and turnover scalers are firms with 10 employees or more that grow in employment or in turnover respectively, by at least 10% per year over 3 consecutive years on average over the period 2015-17.

Source: (OECD, 2021^[2]).

StatLink  <https://stat.link/be2cjq>

The majority of scalers are “mature” SMEs that are at least six years old at the beginning of their growth spell. On average across the 5 pilot countries, mature scalers represent almost 80% of all employment scalers and they account for more than 70% of new jobs created by scalers over the 2015-17 period. “Young” SMEs (five years old or younger) are twice as likely to scale up than mature SMEs, but they account for only about 20% of all (non-micro) SMEs, which explains their smaller share among scalers and the lower contribution to job creation.

Young scalers are however particularly likely to scale up twice over a six-year period, or to scale down or close. Between 11% (Spain) and 29% (Portugal) of young scalers follow their first high growth phase with a second one. But their success is more volatile. Around 45% of young scalers shrink to go back to their initial employment size, or exit the market, in the three years following their initial high growth. For mature firms the average is about 8 percentage points lower.

Size is no barrier to high growth. SMEs of all sizes are equally likely to scale in Italy, Portugal and Spain. The probability of these firms to scale up (in employment) is very similar across size classes. It is even lower for larger firms in Finland and the Slovak Republic. Firms with 10 to 19 employees have a 16% probability of scaling in employment in Finland and 11% in the Slovak Republic, compared to 8% for large firms with more than 250 employees in both countries. The propensity to scale in turnover follows a similar pattern.

Scalers are everywhere. Across regions, the share of scalers (employment) in all non-micro SMEs ranges from 10% to 17% in Italy, 8% to 13% in Spain, and 8% to 14% in Portugal. In Italy and Spain, several

southern regions with below-national average GDP per capita (such as Basilicata, Campania and Puglia in Italy, and Andalusia and Murcia in Spain) have even a higher incidence of scaling than wealthier regions in the country.

Scalers undergo a deep transformation that is all but linear or even for all

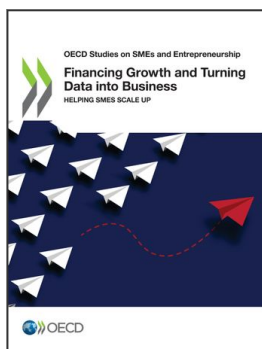
Scaling up is a business transformation whereby SMEs mobilise specific growth drivers and then engage in different scaling up trajectories. The microdata work reveals different models underpinning scaling up. Differences between scalers and their peers are anticipatory, transformational or constant differences (OECD, 2021^[2]). Anticipatory differences are significant in the years just before the high growth phase and converge toward similar values by the end of the high-growth phase. Transformational differences are firm characteristics that vary significantly during a high-growth phase, and that tend to continue to be different also after it. Constant differences vary little during, before, or after the scaling-up phase (Annex Table 1.C.2).

Annex Table 1.C.2. Transformational models and suggested scaling up drivers, based on microdata work

Transformational models			Suggested scaling up drivers
Anticipatory (before high growth phase)	Transformational (during high growth phase)	Constant (before, during and after)	
Scalers are more R&D oriented (higher share of R&D staff)			Disruptive innovation
Scalers use more dedicated IT resources (IT specialists)			Digital adoption and innovation
Scalers employ relatively more educated workers (university degrees)	Scalers employ fewer women Scalers' workforce is on average around two years younger.	As they scale, scalers tend to hire younger employees and therefore further consolidate the average age gap	Skills and workforce (human capital investment)
Bank loans, as a proportion of turnover, tend to increase ahead of scaling and tend to fall as the scalers grow, suggesting upfront investments.	Scalers create financial buffer and accumulate internal resources to finance their operations as they grow (e.g., current assets such as cash, inventories, and other assets)		Financing (all sorts of) investments
Scalers increase their global market presence, in some cases exporting.			Internationalisation (market and network expansion)

Source: Author's elaboration based on (OECD, 2021^[2]).

Across all countries, scalers become more profitable as they grow. The newly gained profitability is not only higher than before scaling, but scalers are also more profitable in comparison with firms in their new size class (OECD, 2021^[2]). The profitability is a sustainable change, as it tends to last after the new scale is achieved. **Employment scalers are also up to 10% more productive than their peers before scaling up.** The rapid growth in labour costs associated with scaling lead the productivity indicators to align with the average of firms in the same size class.



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