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About the Centre for Entrepreneurship, SMEs, Regions and Cities

The Centre helps local, regional and national governments unleash the potential of entrepreneurs and small and medium-sized enterprises, promote inclusive and sustainable regions and cities, boost local job creation and implement sound tourism policies.

About the Statistics and Data Directorate

The Directorate provides statistics, frameworks and methodologies on national accounts, entrepreneurship, productivity, trade, prices and well-being, among others, for evidence-based decision making in current and in emerging policy areas such as globalisation, inclusive growth and digitalisation.

The full book is accessible at:

https://doi.org/10.1787/34907e9c-en.

Find out more about the OECD work on SMEs and Entrepreneurship

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As the predominant form of business and employment, small and medium-sized enterprises (SMEs) are key actors for promoting more inclusive and sustainable growth, increasing economic resilience and improving social cohesion. They are critical partners for building a better future.

**SMEs: from the ‘forest’ to the ‘trees’**

Across the OECD, SMEs account for 99% of all businesses and between 50% and 60% of value added. *Almost one person out of three is employed in a micro firm* with less than 10 employees and two out of three in an SME (Figure 1). In many regions and cities, SMEs have been the main drivers of job creation, particularly since the crisis. In urban and rural areas, they often contribute to the identity and social cohesion of local communities.

Overall, the SME sector displays similar patterns across OECD countries and has remained stable over time. SMEs typically operate in *service sectors with lower entry costs and resource requirements*, notably wholesale and retail trade and construction. There are relatively fewer SMEs in manufacturing sectors, notably those that are capital or knowledge-intensive, requiring a larger scale of production. Nonetheless, *some knowledge-intensive services* can be dominated by small businesses. This is the case in advertising, market research and other professional, scientific and technical activities, as well as legal, accounting and management services.

However, a more detailed view reveals that *SMEs are a very heterogeneous population* whose performance in terms of productivity, wages and international competitiveness varies considerably across sectors, regions and firms.

Several factors can explain these differences, including the size of the economy, resource endowment, market structures, institutions, the business environment and business conduct.

For instance, in Australia and Southern European countries, micro-firms are over-represented, while Japan and the United States have relatively more large firms (Figure 1).

Another example concerns the vehicle and transport equipment sector, where German firms have created strong upstream supply chains with neighbouring lower-wage economies, enabling an ecosystem of small-scale suppliers to emerge. Consequently, the SME share of employment in this sector is twice as high in Poland and the Czech Republic (20%) than in Germany. Korea has implemented targeted actions to strengthen linkages between domestic SMEs and large Chaebols, and thus SME share of employment in the vehicle and transport sector is significantly higher in Korea (58%).

*Better understanding the heterogeneity of SME population is critical for countries, regions and cities to support the right business conditions and capitalise on their many diverse small businesses.*
FIGURE 1. ONE OUT OF THREE PEOPLE WORK IN A MICRO FIRM, TWO OUT OF THREE IN AN SME.

Percentage of all persons employed by firm size class, 2016 or latest year available.

Note: For Canada, the United States and the Russian Federation, data exclude non-employer enterprises. Data for Switzerland exclude businesses with less than 3 persons employed. For Australia and Turkey, the size class “1-9” refers to “1-19” persons employed.

Enterprise births have picked up, with SMEs driving job creation

The SME job engine has picked up again. New enterprise creations are back to pre-crisis levels in many countries, and surpassing those levels in large economies such as France, Japan, the United Kingdom and the United States. In the United Kingdom, the number of enterprise creations nearly doubled between 2002 and 2017, and more than doubled in France between 2000 and 2017.

Through firm start-ups, SMEs have been driving job creation since 2010, especially in market services and in wholesale and retail trade, but also in accommodation and food services in Greece, Ireland and the United Kingdom, and in the construction sector in Italy and Norway.

Market conditions and financing for SMEs have improved since the crisis

Since the crisis, market conditions for SMEs and entrepreneurship have improved, mainly driven by global investments and a rebound in business confidence, although there are recent signs of tightening.

Bank lending to SMEs is increasing at a moderate pace across countries, although not as much as could be expected given the accommodative credit conditions by historical standards. This in part reflects lower demand for external financing by SMEs that have restored their profit margins and internal financing capacity. At the same time, challenges in accessing finance persist for micro-firms, start-ups and innovative ventures with novel business models.

Against this backdrop, the supply of alternative sources of funding, such as asset-based and equity funding, is increasing rapidly. Fintech (i.e. technology-enabled financial services) is expanding strongly and becoming increasingly important in the SME financing landscape. Blended models that combine a range of innovative financial services for SMEs are on the rise, from peer-to-peer lending, to alternative risk assessment tools, to Initial Coin Offerings.

Online alternative financing has been experiencing double and triple digit growth in many countries, contributing to the diversification of SME financing sources and instruments. China raised USD 112 billion through online markets in 2017.

However, the recovery is not providing its full benefits, with wages at half-mast

Although SMEs can outperform large enterprises in some services sectors, most new firm and job creation took place in sectors with below average productivity levels (Figure 2). In addition, new firms are often born smaller, with increased productivity gaps between small and large firms at the aggregate business level. This lower productivity has resulted in more lower-paid jobs. SMEs, even the larger ones, typically pay employees around 20% less than large firms. Between 2010 and 2016, close to 90% of the net new jobs in France, 75% in the United States, and 66% in Germany and the United Kingdom, were in lower-wage sectors.
These findings can contribute to understanding some of the drivers of **wage stagnation** observed in many OECD countries, despite economic recovery and rise of employment.

As current business dynamics weigh on income and material well-being, these developments could also raise concerns about education and training prospects of the workforce, the sustainability of pension systems, the breadth of the tax base and public acceptance of technological change and globalisation.

**SMEs are driving job growth, but need higher investment in skills, innovation and tech to boost wages and productivity.**
SMEs are at the centre of the next production revolution

Digitalisation is opening up new opportunities for young firms and SMEs to innovate and flourish, as they acquire capacity to use and combine emerging digital technologies to transform their business models and work practices. Potential implications for overall productivity and inclusive growth are large across all business sectors, including those traditionally dominated by small firms.

**Digital business platforms** ease access to markets, strategic resources and networks, by reducing associated costs (e.g. by pooling resources, by reducing information asymmetries, by connecting demand and supply, etc.). At the same time, they reduce structural disadvantages faced by SMEs in achieving economies of scale, allowing them to reach scale without mass. This is the case, for instance, in accessing skills, e.g. through online job recruitment sites, platforms for outsourcing and online task hiring, and interfaces connecting SMEs with knowledge partners.

**Big data analytics** allow greater customisation and product differentiation. Combined with mobile apps, sensors, artificial intelligence, 3D printing, drones etc., they enable new business models that leverage shorter distance and time to markets, which in turn are likely to benefit smaller and more responsive businesses.

Supply chains and wholesale business will need to adapt operational capability accordingly. Sensors installed along the supply chain and the Internet of things provide room for real-time inventory and the development of integrated business intelligence systems, from smart factories, to distribution platforms, to final sale.

Digitalisation also supports **open sourcing and open innovation**, with large firms contributing to the transformation of business ecosystems through business accelerators and innovation labs that provide start-ups and innovative SMEs with access to resources and markets.

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**The digital revolution in SME-dominated sectors**

- **E-commerce** has been a major driver of changes in retail trade business practices. Physical shops are at the dawn of a revolution as they adapt to new market conditions through smart apps, mobile and cashierless payment services, big-data optimised offers, or virtual augmented reality experiences that cannot be replaced online.
- **In the construction sector**, collaborative digital platforms are changing work practices. Smart 3D model and digital twin allows collecting and sharing data along the life cycle of the building, while improving construction and maintenance. Sensors and drones are increasingly used on construction sites to monitor and secure operations.
- **In accommodation and food services**, sharing platforms, self-driving cars and drones are poised to transform lodging model or food delivery.
In fact, some SMEs are taking the lead at the digital and knowledge frontier

SMEs operating in information and communication technologies (ICT) activities are particularly well placed to reap the benefits of digitalisation. Between 2010 and 2016, their share in the sector’s value-added has increased across nearly all OECD economies, despite concerns about market concentration and winner-take-most dynamics. In Finland, during that period, SMEs increased their share of value added in computer programming by over 10 percentage points; the same trend occurred in Ireland in telecommunications.

Specialised high-skilled SMEs can outperform large firms. This is notable in France, Sweden and the United Kingdom, where micro and small firms in professional, scientific and technical services are more productive than large enterprises.

Nevertheless, technology adoption remains an issue for most SMEs…

SMEs lag in digitalisation. Digital diffusion tends to be lower in smaller firms. These firms also face more difficulties in undertaking the complementary investments in skills and organisational changes that are needed to adopt and benefit from technology.

Cloud computing, for instance, is seen as a key digital technology which flexibility and scalability can help SMEs reduce ICT investment and access digital resources (such as extra processing power, storage capacity, software or databases) in quantities that suit their needs. Yet in 2018, across the OECD, large firms were twice as likely to purchase cloud computing services as small firms. This gap was 3 to 1 in Mexico and Spain, almost 4 to 1 in France (3.8) and almost 5 to 1 in Poland (4.9).

The transition to high-speed broadband provides another telling example of the challenges SMEs may face in keeping pace with the digital transformation. Gaps in high-speed broadband penetration rates between small and large firms have increased in recent years in all countries, with important implications for the broader digital transition (Figure 3).

This is because quality broadband networks enhance digital service accessibility and adoption. In particular, a new generation of 5G mobile networks is emerging, with optimised capabilities for data transfer that will be central to new data-driven business models. Firms tend to purchase more cloud computing services when they also have access to enhanced broadband infrastructure. They tend to adopt more complementary digital technologies, such as business intelligence software, when they also use cloud computing. Consequently, the SME lag in connecting to high-speed broadband or in using key digital technologies can jeopardize their participation in the next production revolution.
Figure 3. Divides in high-speed broadband adoption are widening

Difference in penetration rates between small and large firms, percentage points (%), 2011-18

Note: High-speed fixed broadband penetration rate is the percentage of businesses with a broadband download speed of at least 100Mbit/s. Data include firms with 10 or more employees.

... and SMEs often have less capacity to manage skills and innovation assets

SMEs are less proactive in protecting their data and not as prepared to face cybersecurity threats. This places them at risk of becoming weak nodes in complex and hyper-connected infrastructure systems.

While more innovative than large firms in terms of organisational and marketing practices, and often technological products and processes as well, SMEs struggle to combine different types of innovation that require managing a larger portfolio of innovation assets (Figure 4).

SMEs are also less likely to have the skills for managing their digital transformation, and still too few of them engage their employees in ICT training. In 2017, a quarter of SMEs in the EU reported a lack of skilled staff or experienced managers as their most important problem (before access to finance or regulation). This was twice as many as five years earlier. Few small firms provide ICT training to their employees, less than 25% in most countries, and little progress has been made in recent years.

In addition, SMEs continue to face skilled labour shortages, especially in management, communication and/or problem-solving skills, which are crucial for innovation.
Recent progress has been made in engaging SMEs in vocational education programmes and closing the training gap with large firms. Nevertheless, additional efforts are needed to bridge the skills divide. Furthermore, while the increase in non-standard jobs may create opportunities for outsourcing, it may also exacerbate SME difficulties in finding talents and trained workers in the long run.

**Figure 4. SMEs struggle to combine different modes of innovation and to manage a larger knowledge portfolio**

Percentage of innovative firms in each size category by mode of innovation, 2016 or latest available year

*Note:* Technological innovation includes product and process innovation; non-technological innovation includes organisational and marketing changes. SMES are defined as businesses with 10-49 employees and large firms as businesses with 250 employees or more. International comparability may be limited due to differences in innovation survey methodologies. Data for non-EU countries refer to 2014.


[StatLink](http://dx.doi.org/10.1787/888933924875)
Internationalisation is another channel to enhance SME productivity, with digitalisation opening up new opportunities

The fragmentation of production worldwide has provided smaller businesses with significant scope to compete in specialised segments of global value chains (GVCs) and to scale up activities abroad, while capitalising on robust growth in emerging markets. GVCs are also a major channel for SMEs to access foreign technology and knowledge, and increase productivity and wages. Actually, the wage gap with large firms is indeed smaller for exporting SMEs.

In addition, digitalisation can create effective mechanisms to reduce size disadvantages in international trade, for example by reducing the absolute costs associated with transport and border operations.

The role of multinationals (MNEs) in SME technology upgrading is widely acknowledged, but the recent concentration of FDI in the acquisition of digital assets, especially in non-digital sectors, is likely to reinforce the importance of MNE-SME linkages for the SME digital transformation.

_Digitalisation and globalisation act as major channels for enhancing firm performance but SMEs need to better seize the benefits._

However, there are signs that the global expansion has peaked, dampening the SME business outlook

Market conditions for SMEs and entrepreneurship are tightening, with the global economic slowdown and trade tensions darkening SME market prospects.

GVCs that spread through international trade and foreign direct investment by multinationals have lost momentum. Foreign direct investment is at its lowest levels since 2013, at USD 432 billion in the first half of 2018, 44% lower than the previous year. Trade tensions may further hamper SME opportunities to engage in trade networks and GVCs.

In addition, the consequences of reconfiguring GVCs for SMEs remain uncertain. Robotics and 3D printing may encourage reshoring strategies, as cutting on labour costs may no longer be sufficient reason for offshoring activities, and multinationals may reduce the fragmentation of production in order to improve supply chain resilience and flexibility.

_In the event of a new economic slowdown, SMEs are likely to be hard hit._
These challenges call for innovative and multi-level policy solutions for SMEs

Governments have been proactive in levelling the playing field for SMEs and capitalising on emerging opportunities, making them a major target of public policy attention and support.

The 36 country profiles of the OECD SME and Entrepreneurship Outlook show that in the OECD area, governments tend to converge in their broad strategic policy orientations for SME and Entrepreneurship, but approaches to policy design and implementation vary significantly across countries.

There are a range of views on how to unleash SME and entrepreneurs’ potential. While some countries have sought to mainstream SME policy considerations in other policy agendas, others specifically target SMEs with tailor-made instruments, often combined with place-based or a sector-wide policy mix.

Towards a renewed policy and measurement agenda on SMEs and entrepreneurship

The heterogeneity of the SME population, the diversity of their business ecosystems and the pressing challenges ahead call for a fundamental rethinking of SME&E policy.

A whole-of-government approach will be a key factor for success, including enhanced monitoring and evaluation capacity, international peer learning, and efficient multi-level governance arrangements across national and subnational levels, regions and cities. An important focus is needed on coordination and cooperation of multiple stakeholders.

However, the effective design, implementation and evaluation of SME&E policies require more and better data, as well as stronger evidence on policy synergies, complementarities and trade-offs.

Through this SME and Entrepreneurship Outlook, the OECD will continue to contribute towards a policy environment where SMEs and entrepreneurs can reach their full potential and to build more resilient, sustainable and inclusive societies.
Policy trends: Scaling up SME capacity

- **Encouraging SME technology uptake**
  
  * As digital infrastructure increases in reach and speed, complementary policies aim to raise SME awareness and competences on data protection and cybersecurity, and provide them with a range of targeted supports for technology adoption, from financial, to technical, to training assistance.
  
  * **Sector-wide solutions** are often instrumental for accelerating technology diffusion within specific business ecosystems. Governments have built partnerships with a view to promoting the use of ICT by SMEs in specific sectors, e.g. whole and retail trade and transportation in Denmark, arable farming, tourism and construction in New Zealand, or e-retail trade in Spain.
  
  * **Technology extension programmes** increasingly target SMEs, often on an individual basis, with a view to increasing their absorptive capacities. Key services include the provision of information, diagnostic and implementation plan, as well as technical assistance, consulting and training.

- **Strengthening SME innovation**
  
  * SME policy consideration are increasingly mainstreamed in innovation policy making, for instance national strategies and high-level policy documents (e.g. Czech Republic, European Commission - EC).
  
  * **Innovation support packages** have been revamped to become more accessible and better targeted to SMEs (e.g. introduction of carry forward and refundable options in R&D tax incentives). Today, SMEs receive more of public support to R&D than they spend on R&D, especially in the form of competitive grants and other direct funding. In Latvia or Slovenia, SMEs receive over 90% of direct public funding.

- **SME upskilling: stronger and more diverse skills**
  
  * The skills agenda is being revisited in order to adapt supply to the requirements of emerging industrial systems. Governments have engaged action to consolidate vocational education and training systems while encouraging higher participation (e.g. Austria, China, India). Many SMEs use apprenticeships for cost efficiency, and more than 50% of apprentices work in firms with less than 50 employees.
  
  * Governments are urging SMEs to offer upskilling opportunities to their employees, by reducing trainings costs (e.g. through tax incentives, subsidies and vouchers schemes), promoting the benefits of workplace training (e.g. through local employer networks) and easing access to training programmes (e.g. through training brokers).
  
  * Initiatives also target managers and business owners via diagnostic tools, management coaching and training, and information workshops (e.g. Mexico, UK).
Policy trends: Building a supportive environment for SMEs

- **Scaling up networks and MNE-SME linkages**
  - Cluster policies have focused on strengthening interdisciplinary and research capacity through more *industry-science, cross-sectoral and international interactions*. As part of efforts to scale up cluster networks, governments aim to increase SME participation (e.g. Canada, Germany, Korea).
  - Accelerators and incubators are sprouting worldwide, turning cities into hubs for data-driven innovation and experimentation (e.g. Australia, Korea, Portugal).
  - OECD governments are active in connecting *multinationals* (MNEs) with domestic SMEs. Beyond financial packages or simplified procedures aiming to attract FDI (e.g. Estonia, Netherlands, Poland), some governments are promoting MNE-SME collaboration and SME integration into supply chains (e.g. Ireland).
  - Governments seeking to *help SMEs go global* frame support within their national export strategies (e.g. Norway) or industrial policies (e.g. Italy), while others provide SMEs and MNEs with targeted assistance (e.g. Canada, Estonia).

- **Enhancing access to diverse financing instruments**
  - Governments have improved their regulatory frameworks and introduced targeted policies to support *Fintech*, such as equity crowdfunding and peer-to-peer lending;
  - The *venture capital* industry has received increased public support, mainly through public funds co-investing with private actors.
  - Credit guarantees continue to be the most widespread instrument to support SME finance. Eligibility criteria have been modified to better target specific SME segments, such as innovative firms, start-ups or women entrepreneurs, and many countries provide complementary advisory services.

- **More and better infrastructure**
  - Governments have deployed *comprehensive strategy exercises*, from assessment (e.g. UK) to revised roadmaps (e.g. Mexico), engaging the private sector in infrastructure development through dialogue and *strategic partnerships*.
  - As infrastructure are often decentralised administratively and financially, governments adopt a whole-of-government and multi-level approach, with “smart cities” as an example of cross-cutting policy making (e.g. Canada, Germany, EC).
  - Particular emphasis is being placed on digital networks, large-scale research and computing infrastructure (e.g. France, Netherlands), and platforms for technology transfer (e.g. Germany, Portugal) that contribute to make SME business environment more innovation-oriented.
Policy trends: Getting the institutional and regulatory frameworks right

➤ Levelling the playing field in access to markets

* Policy action has been taken to improve SME access to markets, although national approaches differ significantly. Pro-competition market regulation seeks to enable firm entry and rivalry (e.g. Australia), sometimes in specific sectors (e.g. Austria in retail and professional services sectors).

* SMEs have been at the centre of public procurement agenda, with e.g. simplified bidding procedures (e.g. Denmark), targeted services to increase SME capacity to bid (e.g. Switzerland), set-asides provisions (e.g. US), or improved administration (e.g. Canada). Innovation procurement programmes also provide SMEs opportunities to access lead innovative markets, either for commercialising their products or for increasing their innovative capacity.

➤ Smart regulation and smart institutions

* Governments implement smart regulation and increasingly integrate SME-related considerations into policy making, e.g. through public consultations (e.g. Denmark), “One-for-One” rules (e.g. Germany), or regulatory impact assessment (e.g. Australia).

* Reforms in taxation and reforms aiming to lower administrative requirements and delays have also contributed to reduce the burden on SMEs and start-ups. Despite efforts, the complexity of regulatory procedures remains a major obstacle for SMEs and entrepreneurs, and ex-post evaluation systems remain underdeveloped. The pace of structural reform has also slowed in recent years, with uneven progress, e.g. in insolvency regimes, civil justice and enforcement of competition laws.

➤ Digitalisation, a game changer in public services for SMEs

* Digitalisation enables more efficient interactions with public administration. E-government and online platforms are facilitating consultations and service delivery to SMEs (e.g. Chile, Spain). Applications are already spreading across a broad range of areas, from business development services (e.g. Portugal), to license systems (e.g. Ireland), to tax compliance (e.g. Denmark), to courts (e.g. Italy) etc.

* Greater data availability, combined with behavioural insights, is allowing governments to adopt more user-centric approach in services and operations (e.g. UK), creating room for policy experimentation (e.g. tax compliance by design).

* Open Government Data initiatives give SMEs access to new data at reduced costs and support SMEs in building their portfolio of intellectual property (IP) assets. Data protection frameworks are also legally reinforced and efforts aim to harmonise legislations across jurisdictions and make IP rights easier and more predictable to use.
References


OECD (forthcoming), Data Analytics in SMEs - Trends and Policies.


The new OECD SME and Entrepreneurship Outlook presents the latest trends in performance of small and medium-sized enterprises (SMEs) and the state of entrepreneurship and business conditions for SMEs. This year’s edition provides comparative evidence on business dynamism, productivity growth, wage gaps and export trends by firm size across OECD countries and emerging economies. It explores the potential implications of digitalisation and globalisation for market conditions and SME access to infrastructure and strategic resources such as finance, skills, technology, data and other innovation assets.

The report gives comparative analysis of regulatory frameworks and policies to level the playing field for SMEs and entrepreneurs, and delivers a forward-looking perspective on the challenges SMEs and entrepreneurs face in doing business and scaling up their activities. It also contains country profiles outlining the latest developments in national SME performance and business conditions, with expanded country profiles available on line.

More information:  www.oecd.org/cfe/sme