



# Hidden champions, missed opportunities

Mid-caps' crucial roles in Europe's  
economic transition



European  
Investment Bank



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# Introduction

Medium-sized enterprises (or mid-caps) play a crucial role in the European economy, representing a significant portion of employment and value creation. A recent report from the European Commission estimates that mid-caps (250-3 000 employees) account for more than 17% of overall employment<sup>1</sup> and 21% of turnover in the EU27 business sector.<sup>2</sup> Mid-caps are also considered to be an essential part of important industrial ecosystems that underpin the competitiveness of the European economy, such as Electronics, Health, Energy/Renewables and Aerospace & Defence.<sup>3</sup>

Despite their importance in the European economy, mid-caps are not well-defined in major statistical databases and also at the national level, the criteria used to define them vary greatly (see Box A). This lack of definition and statistical clarity complicates the analysis of mid-caps' impact on the economy and the design of policies aimed at supporting their expansion.

This report contributes to the analysis of mid-caps by providing insights on their performance, investment activities, financing needs, and the challenges that these companies face linked to the green, digital and economic security transitions. The research work is conducted using the EIB Group Survey on Investment and Investment Finance (EIBIS), a unique information source providing details on investment and financing decisions of 12 000 European small businesses (SMEs), mid-caps and very large (XL) firms on an annual basis. We define mid-caps as firms having between 250 and 3 000 employees.

We find that mid-caps are steady performers across key investment and output indicators and are key contributors to addressing the challenges faced by the European Union linked to the green and digital transitions, competitiveness and productivity. In terms of innovation, digitalisation and both their perception of climate change risks and the related investment, they are almost at par with XL firms and significantly more active than SMEs.

At the same time, compared to XL firms, mid-caps' limited size and strong internationalisation and dependence on inputs put them at the hard edge of the recent crises, such as surging energy prices and supply chain disruptions. Despite this, and on top of a more limited continued access to COVID-19 related support, especially small mid-caps seem to benefit less from advantageous public financing. A "fall" in support once a firm outgrows the SME phase suggests that mid-caps could be performing below potential. It could also be generating lock-in effects in the SME size class, corroborating existing data on the European Union's difficulties to develop scale in companies and industries.

This is *prima facie* evidence that policies should be more targeted as well as gradual to facilitate mid-caps' capability to scale up and access new markets. These findings are even more worrisome considering the good performance of mid-caps in terms of the main transitional challenges that the European Union is facing. The potential of positive spillover effects of EU mid-caps' role in innovation, digitalisation and climate change adaptation could be amplified if these companies were facing the appropriate regulatory framework and given the means and proper incentives to further follow their own transition path.

The report provides initial recommendations to respond to identified market and policy failures and to tap into the potential mid-caps offer for the EU economy as it faces the challenges of the triple green, digital and economic security transitions. However, as a first step to formulate adequate policies, an EU-wide definition and statistical evidence should be prioritised to better understand how mid-caps differentiate from SMEs and bigger firms, what their specific needs are, and how to help them achieve their full potential.

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<sup>1</sup> Micro firms (fewer than nine employees) employ 38% of the total workforce, while SMEs (excluding micro firms) with fewer than 250 employees represent 34.4%, and XL firms (with 3 000 employees or more) account for 10.1% of overall employment in EU business sectors (for more details, see European Commission (2022)). The data from Eurostat SBS shows that in 2021, micro firms (0-9 employees) and SMEs (excluding micro firms) employ approximately 30% and 34.5% of the total workforce in EU27 business sectors while larger firms (250+ employees) account for 36.4% of overall employment (authors' estimation based on Eurostat SBS data sbs\_sc\_owv ([Link: Database - Structural business statistics - Eurostat \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1))).

<sup>2</sup> According to INSEE (2021), non-financial and non-agricultural medium-sized firms (entreprises en taille intermédiaire – ETI, definition as in Box A) employed 3 million (full-time equivalent) employees (24.3% of the workforce) and account for 27% of the investment, 30% of turnover and 26% of the value added of all companies while making up only 1.6% of the number of firms in France.

<sup>3</sup> The proportion of mid-caps is particularly high in the above-mentioned sectors compared to those in service industries like tourism or wholesale/retail.

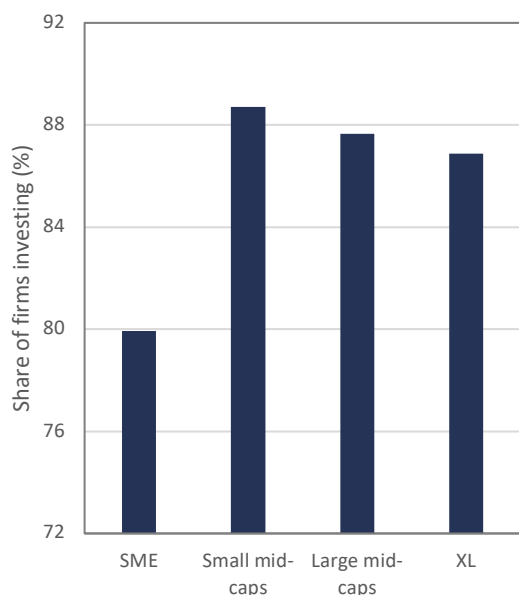
# Mid-caps as Europe’s “hidden” growth champions

Mid-caps could be key drivers for Europe’s growth. Pooled EIBIS evidence, based upon the surveys ran between 2018 and 2023, suggests that mid-caps could be Europe’s hidden champions, particularly in three fields that are essential for innovation and global competitiveness: investment, training and productivity. In the context of this report, we further split mid-caps into small (between 250-500 full-time equivalent employees) and large mid-caps (between 500 and 3 000).

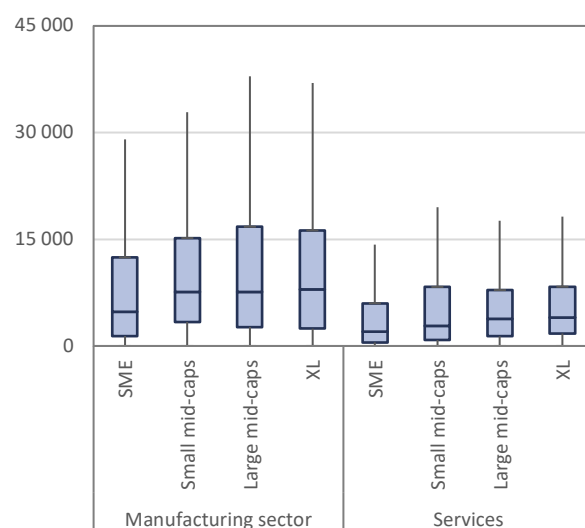
## Investment

Mid-caps are more likely to invest than SMEs and large firms. Overall, more than 88% of small mid-caps and around 87% of large mid-caps have invested during the period between 2018 and 2023, compared to less than 80% of SMEs and around 86% of very large firms (see Figure 1).

**Figure 1: Mid-caps are more likely to invest than SMEs and XL firms**



**Figure 2: Investment intensity varies significantly across sectors and firm sizes**



Not only are there more mid-caps investing than in other size classes, their investment volumes are also larger. Mid-caps, along with XL firms, invest more per employee<sup>4</sup> than SMEs (Figure 2). In the manufacturing sector – where mid-caps represent over half of all European firms’ value added (see Appendix A, Figure A1) – firms invest twice the rate of those in the service sector. Indeed, the accumulation of production-related machinery and equipment (which are often more expensive) plays a bigger role in the manufacturing sector than in the service sector. Also, when zooming in on the manufacturing sector mid-caps stand out, boasting higher levels of investment per employee than large companies and SMEs.

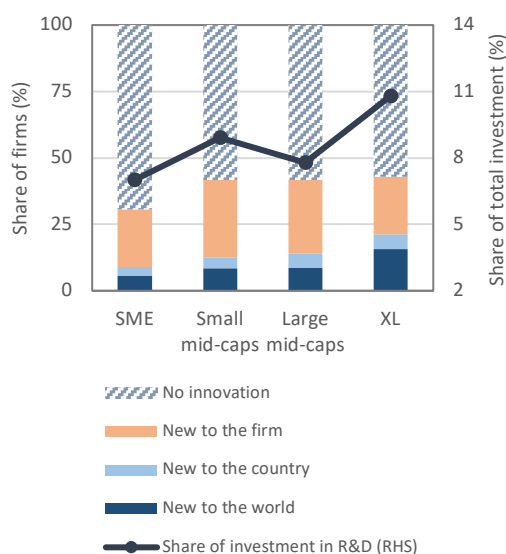
<sup>4</sup> Here, we compute the total investment per full-time equivalent employee as investment intensity in Figure 2.



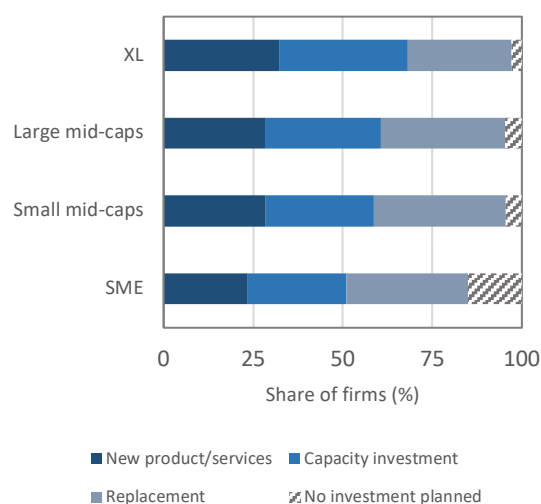
## R&D and innovation

An important part of investment is investments in intangibles, and more specifically research and development (R&D), and the resulting innovation. Mid-caps also invest more in R&D than SMEs and slightly less than large firms (see Figure 3). Innovation, measured as the introduction of innovative products, processes or services that are new to the firm, the country, or the world, is highly correlated with the share of R&D investment. Unsurprisingly, mid-caps are thus also much more likely than SMEs to innovate, and almost at par with XL firms in this respect (Figure 3).

**Figure 3: Innovation and R&D activities are correlated with firm size**



**Figure 4: Mid-caps and XL firms are more likely to prioritise investments in new products/services than SMEs**



Also, when looking ahead to the next three years, innovation is a priority for mid-caps. Along with XL companies, mid-caps are more likely to prioritise investment in new products or services (32% of XL firms and 28% of small and large mid-caps), a higher share than reported by SMEs (23%) (Figure 4)<sup>5</sup>. Additionally, the share of firms prioritising capacity expansion is slightly higher for mid-caps and XL firms than for SMEs. The share of firms with no investment planned is highest among SMEs at 15%, while the figures are significantly lower for mid-caps (about 5% for both small and large mid-caps) and XL firms (3%).

## Training, skills and productivity

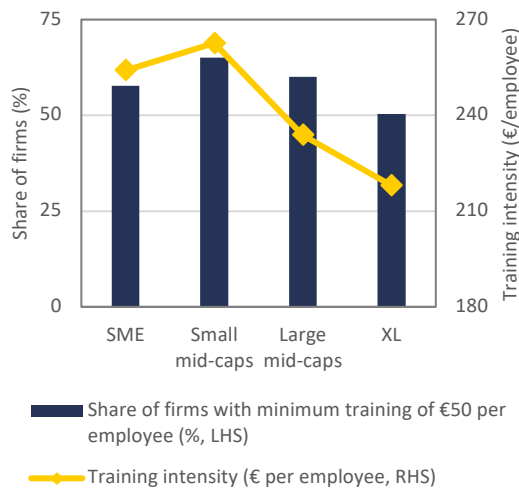
Effective training of workers and upskilling of their abilities are key elements for firms to address challenges and ensure their competitiveness in the future. Also in this respect mid-caps are champions, as they are more likely to invest in training than both SMEs and large firms. Especially small mid-caps (65%) are likely to invest in training (Figure 5). Furthermore, small mid-caps tend to invest more in training per employee than SMEs and XLs. Considering the potential skill mismatches in the European Union linked to the structural transitions, this is a crucial form of intangible investment, contributing to overall productivity and fostering innovation.<sup>6</sup>

Higher shares of investment in training correlate with higher labour productivity. Indeed, labour productivity for mid-caps is higher than for their peers in other size classes (Figure 6). EIBIS results show that especially small mid-caps are characterised by high labour productivity, closely followed by large mid-caps, with SMEs and XLs trailing behind.

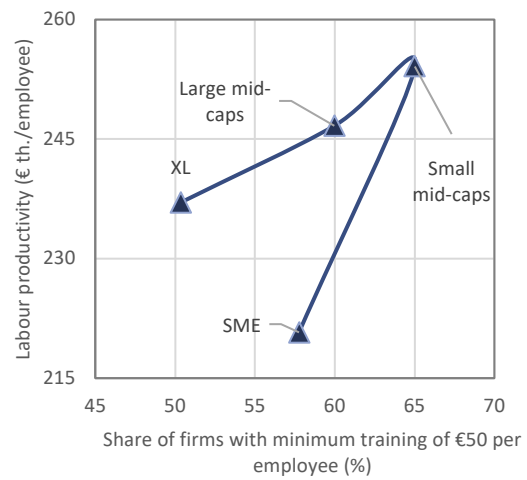
<sup>5</sup> Investment for replacement purposes remains the most common purpose across all firm size categories: EU firms across all size categories spent roughly 46% of their total investment on replacement purposes during 2018-2022. The total amounts spent on new products or services and on increasing production capacity are slightly higher (by 1.5-2 pp.) among mid-caps and XLs compared to SMEs.

<sup>6</sup> See for instance Haskel and Westlake (2018), Konings and Vanormelingen (2015), and Martins (2022).

**Figure 5: Mid-caps are most likely to invest in training**



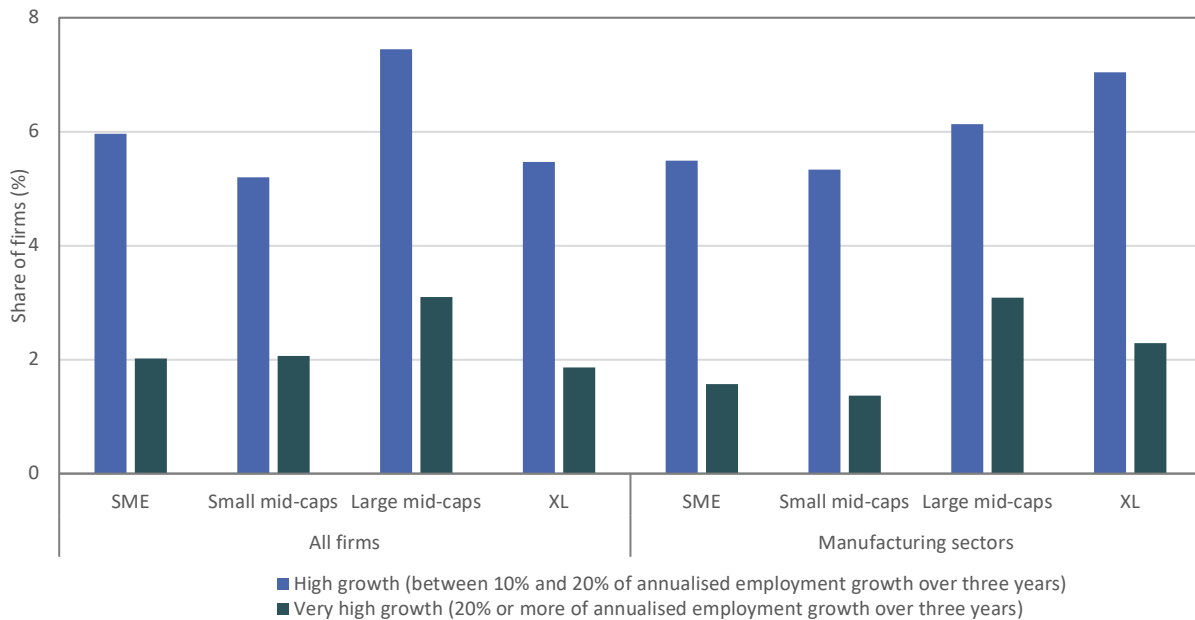
**Figure 6: Mid-caps have higher labour productivity than SMEs and XL firms**



In addition, a larger share of mid-caps can be considered as high-growth firms (Figure 7). Defined as enterprises that experience substantial and sustained growth rates over a specified period, high-growth firms (HGF) are known as vital drivers for growth, employment creation and innovation (see Audretsch (2012) and Ács (2015)).<sup>7</sup>

The results from EIBIS show that large mid-caps have the highest share of high-growth and very high-growth firms, at 7.5% and 3.1% respectively, followed by SMEs at 6% and 2%. XLs and small mid-caps are slightly behind with 5.2-5.5% and 1.9-2.1% of high- and very high-growth firms. Among manufacturing firms, large mid-caps and XL firms have the highest share of very high-growth firms.

**Figure 7: The share of high-growth firms is highest among large mid-caps**



<sup>7</sup> See Eurostat-OECD (2007), OECD (2010), Ács (2015)). We apply a similar approach of Eurostat-OECD (2007) to compute high-growth firms using number of (full-time equivalent) employees. We also additionally sub-categorise high-growth firms into two groups: high growth (firms with annualised employment growth of between 10% and 20% over a three-year period) and very high growth (20% or above).

## Hidden Champions

The term 'hidden champions' was first coined by German academic [Hermann Simon](#) in his book "Hidden champions: lessons from 500 of the world's best unknown companies". Simon developed the concept to describe German Mittelstand companies with niche market leadership in the manufacturing sector, acting as the motor behind the Germany's innovative power and global leadership in exports.

'Hidden champions' can be understood as companies that take top places in innovation and global or regional markets, while being relatively small and little known. With their limited size and relatively low public profile, EIBIS data suggests that European mid-caps fit with hidden champions typology.

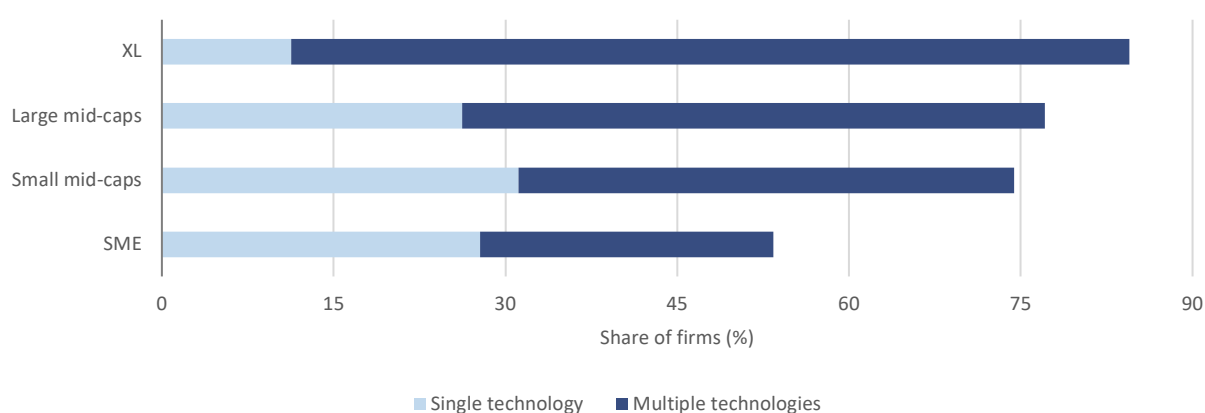
# Mid-caps as vectors of Europe's transitions

Mid-caps are not only investment and growth champions, but they also stand out as important vectors in facing Europe's major transitional challenges — digitalisation, climate change and economic security.

## The digital transition

The adoption of more advanced digital technologies is a major factor of productivity improvements (Gal et al., 2019; EIB, 2023). Furthermore, it is crucial for the digital transformation of the EU economy. The mainstreaming of technologies such as artificial intelligence (AI) and big data analytics, the internet of things (IoT) and augmented reality (AR) as well as of 3D printing, advanced robotics and drones stands as a fundamental necessity to maintain competitiveness for the coming years.

**Figure 8: The uptake of advanced digital technologies depends significantly on firm size**



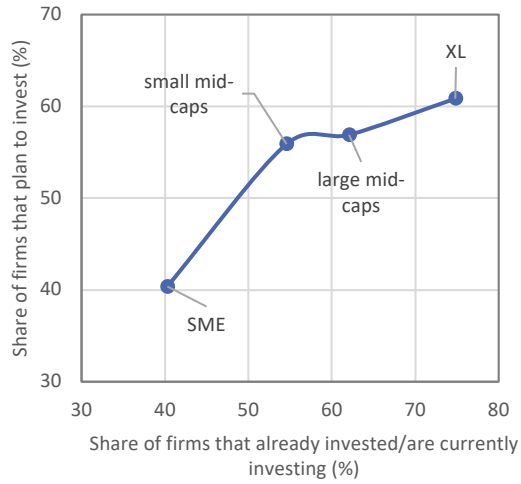
The results from EIBIS show that mid-caps are largely ahead of SMEs in the adoption of such digital technologies, reaching similar performance as the largest companies. Over 84% of XL companies invested in at least one digital technology, while this is about 75% for mid-caps (77% for large mid-caps, 74% for small mid-caps). In the SME class, only around 53% of firms have implemented at least one of these advanced technologies.

The relationship between firm size and the use of advanced digital technologies is well-known. It has been consistently reported over the past years (see also EIB (2022)). Three main factors could explain this relationship: (i) investment in digital technologies entails large, fixed costs; (ii) by nature, larger firms have a larger number of application areas of these technologies; and (iii) larger firms have more employees dedicated to the implementation of these digital technologies in different parts of the company.

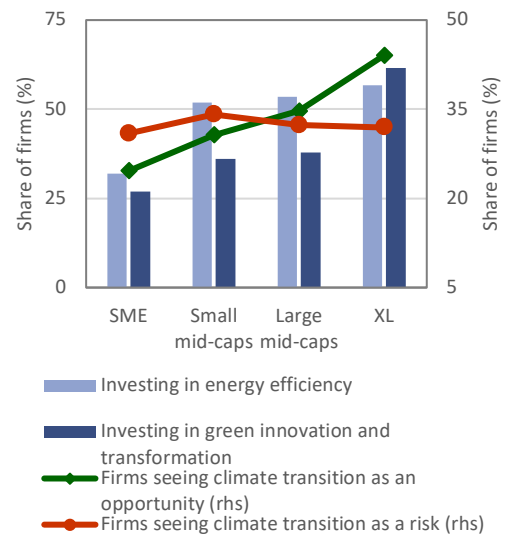
## The green transition

Mid-caps also perform well when it comes to addressing climate change through measures to reduce carbon emissions or cushioning the physical impact of weather events. The share of mid-caps that have already invested in such measures lags somewhat behind that of larger companies but is higher than that of SMEs. Moreover, the share of mid-caps that plan green investments in the future is significantly higher than that of SMEs and almost as high as that of XLS (Figure 9).

**Figure 9: Green investment is mainly driven by XLs and mid-caps**



**Figure 10: Transition risk and investments in energy efficiency and green innovation and transformation**

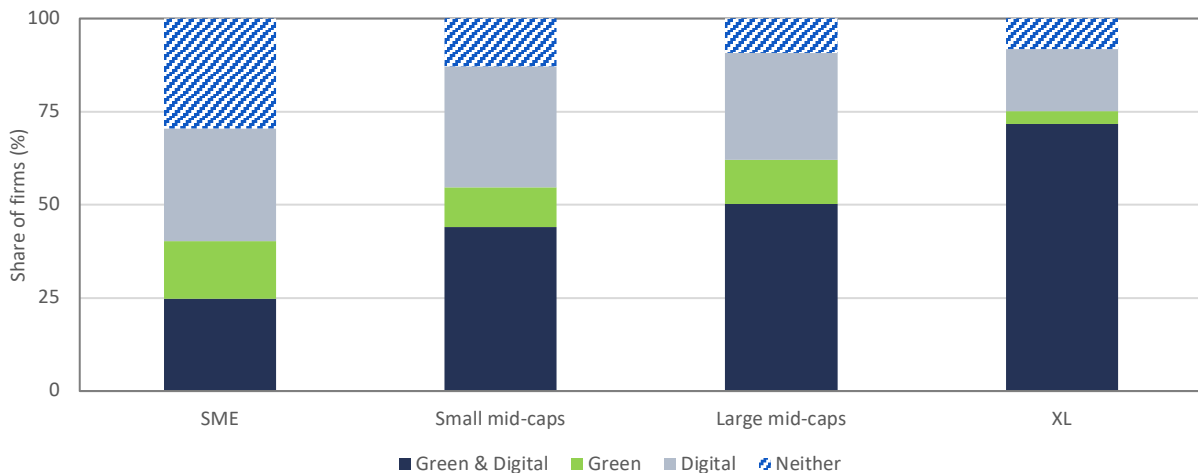


While the share of firms considering the transition to stricter climate standards and regulations as a risk is fairly constant across all firm sizes, larger firms are more likely to see this transition as an opportunity (Figure 10). Larger companies are also more likely to invest in energy efficiency as well as in green innovation and transformation. Especially for the share reporting investments related to energy efficiency, there seems to be a substantial increase from SMEs to mid-caps.

Overall, the track record of mid-caps, as outlined above, makes them critical vectors for the quick deployment of key net-zero technologies and infrastructure as the European Union faces the double challenge of the green and digital transition as well as competitive international pressures, such as Made in China 2025 and the US Inflation Reduction Act.

The previous section has shown that mid-caps perform well in terms of investment, labour productivity and training. This makes them particularly well placed for playing an important role in the structural transition challenges the European Union is currently facing. This comes especially apparent given that the share of companies not having invested in either the digital and/or green transition is significantly lower among mid-caps than among SMEs, with the share of large companies being only slightly lower than that of mid-caps (Figure 11). This suggests that mid-caps play an important role in both the digital and green transition.

**Figure 11: Investment in the twin transition is correlated with firm size**

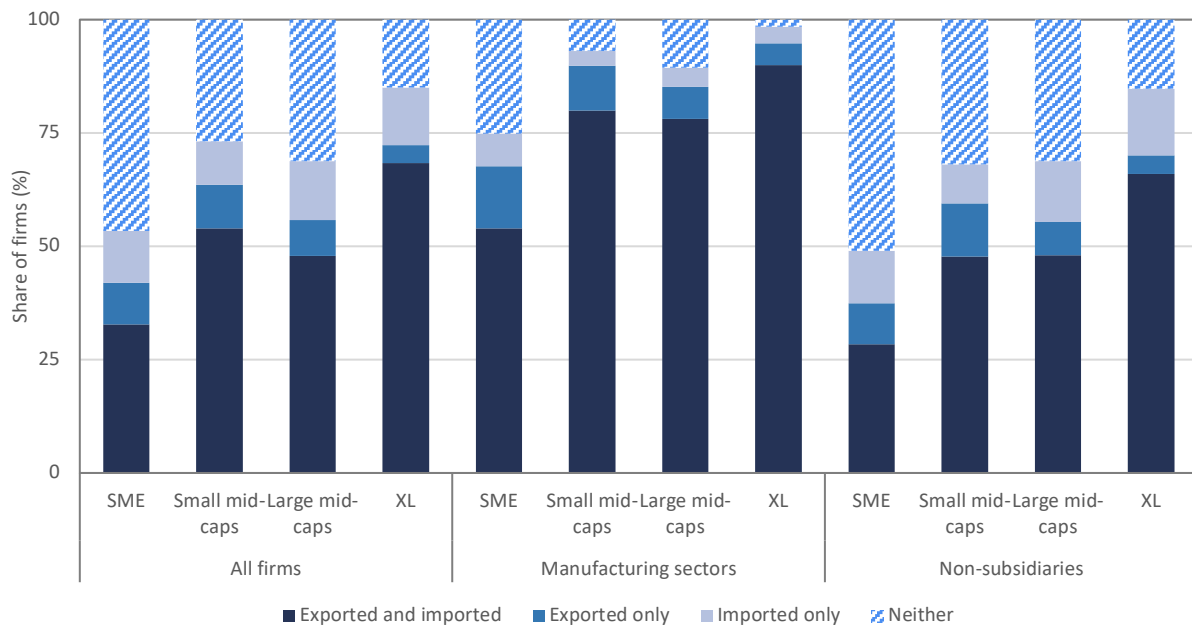


## The transition towards economic security

The transition towards a greener and more digital economy comes with opportunities not only in terms of environmental sustainability, but also with respect to economic resilience and productivity gains which could improve the economic security of the European Union. Green and digital companies pay higher wages, invest more in training and are more likely to introduce innovations new to the global market, which could further generate positive spillovers for Europe’s technological competitiveness.

At times of increased geopolitical tensions and global uncertainty, Europe’s competitiveness may be threatened. The European Union is committed to a model of open strategic autonomy, where the benefits of trade integration remain, while diversification, resilience and innovation are enhanced.

**Figure 12: Mid-caps and XL firms are more likely to engage in international trade**



Mid-caps may be particularly exposed to the global landscape, being often highly internationalised. This is particularly the case in the manufacturing sector, where they are almost as internationalised as large companies. Overall, 90% of small mid-caps and 85% of large mid-caps in the manufacturing sector are exporting, while the number among manufacturing SMEs is around 68% (Figure 12). This high level of internationalisation makes mid-caps more vulnerable in today’s economic environment, and particularly exposed to supply chain shocks.

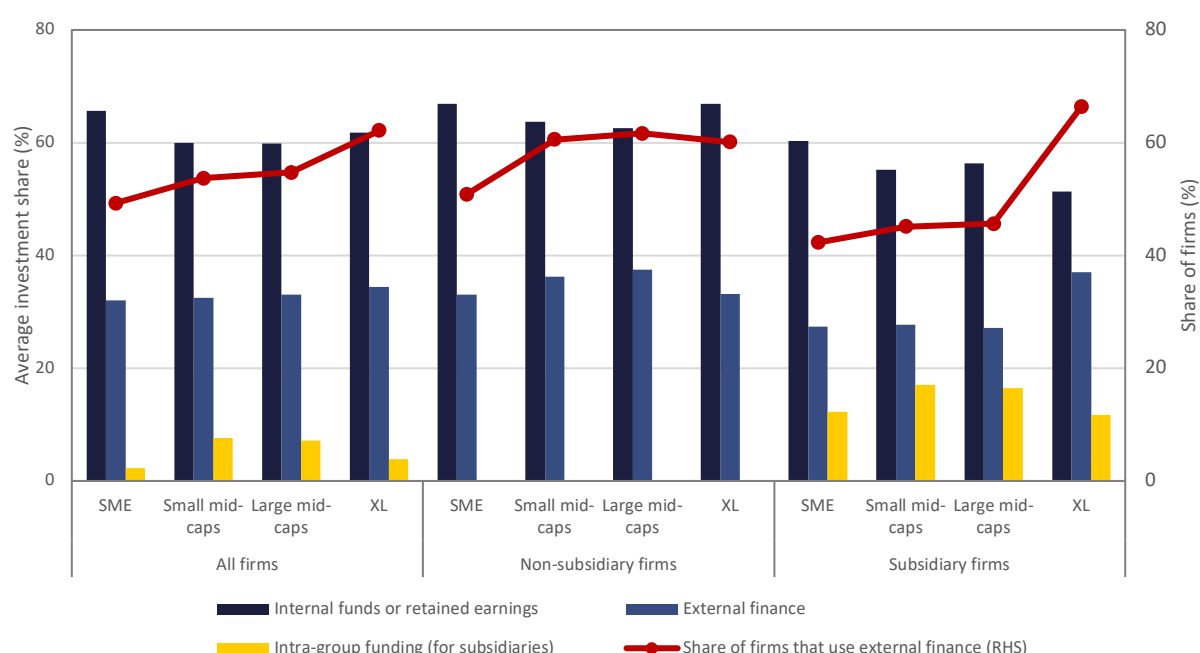
# Obstacles to mid-caps' potential

Despite their strong investment, innovation and productivity performance, and their important role in driving Europe's transitions, mid-caps face significant obstacles in achieving their full potential.

## Tight access to financial markets

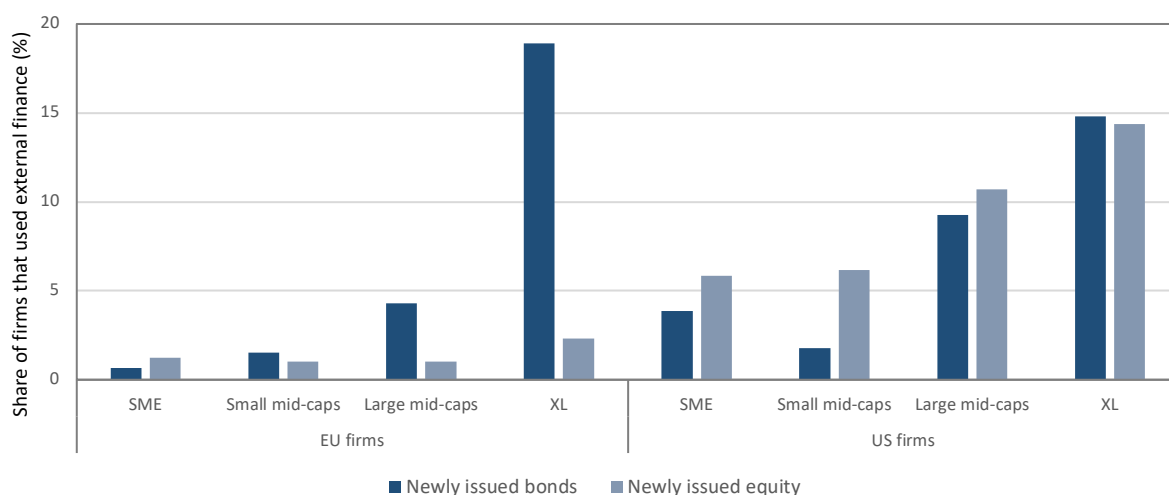
Notwithstanding their ambitious goals and higher propensity to invest, several indicators point to difficulties for mid-caps in accessing finance. On average, mid-caps finance a higher proportion of their investment through intra-group funding (at approximately 7%) than both SMEs (less than 2%) and XL firms (around 4%) (Figure 13).

**Figure 13: Internal finance is the largest source of investment**



Mid-caps are also less likely to issue new equity compared to other firm sizes, albeit only marginally (Figure 14). Mid-caps and SMEs have significantly less capacity to tap into capital markets to issue bonds or equities than XL firms. Despite being larger and better capitalised than SMEs, mid-caps often lack the financial resources and creditworthiness of larger firms, making it difficult to issue bonds or equities in the capital markets (Didier, Levine, & Schmukler, 2016). Only 1.5% and 4.3% of small and large mid-caps in Europe report having newly issued bonds compared to 19% among XL firms.

**Figure 14: Mid-caps are less likely to tap into capital markets than XL firms**



## Less supported by targeted public policies

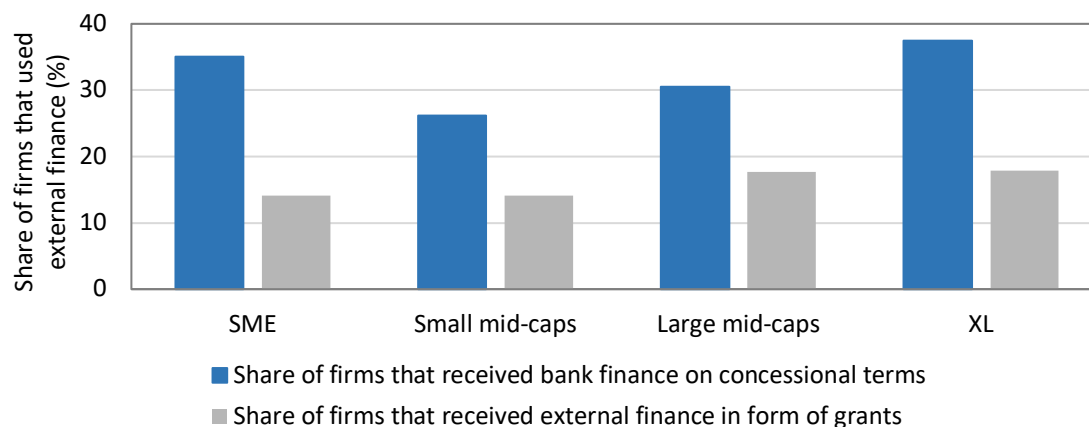
Mid-caps are also less likely than SMEs and XL firms to receive external financing on favourable terms. The likelihood of receiving bank finance on concessional terms, that is, loans with either subsidised interest rates or longer grace periods, falls sharply from SMEs to small mid-caps. On average only 26% of small mid-caps report receiving concessional bank loans, compared to almost 35% of SMEs. About 30% of large mid-caps report having access to those concessional bank loans, which is a smaller share than SMEs but higher than small mid-caps and below the share reported by XL firms (37%).

In addition, small mid-caps and SMEs are least likely to receive external finance in the form of grants (both 14%), compared to XL firms (Figure 15). The likelihood appears to increase for large mid-caps and reaches 18% for XL firms.

The difference in receipt of bank finance on concessional terms might reflect the fact that many European regulations are size-dependent and hence induce the lock-in effect for firms to remain SMEs. Röhl (2018) and BDI (2018) documented examples of size-dependent regulations and criteria for R&D grants in Germany to advocate for reducing regulatory burdens and relaxing size criteria for grants on mid-caps and larger firms.

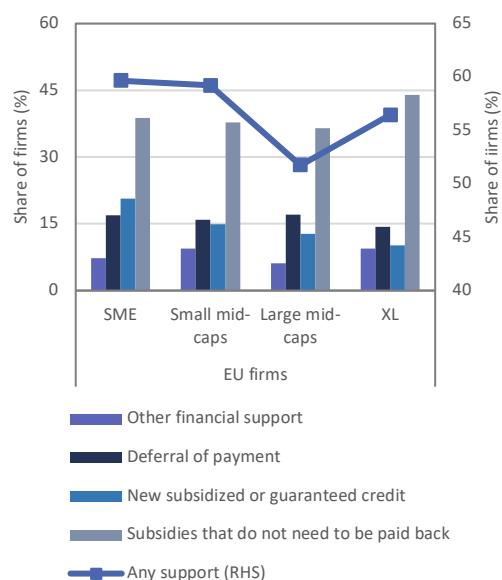
In parallel to mid-caps' relatively adverse financing conditions, they were also less generously supported than SMEs and large companies by the government during the COVID-19 crisis. In response to COVID-19, about 51% of large mid-caps in the European Union received some form of financial support, compared to 60% among SMEs and small mid-caps and 56% among the largest firms (Figure 16).

**Figure 15: Among firms securing external finance, mid-caps are less likely to secure concessional loans**

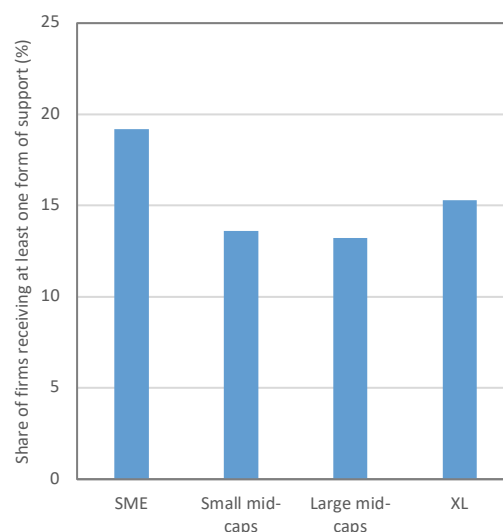




**Figure 16: Mid-caps are less likely to receive financial support from government**



**Figure 17: mid-caps were less likely to continue to receive government support after the COVID-19 crisis**



During the COVID-19 crisis, mid-caps were least likely to receive the most used policy tool, subsidies or other types of finance that did not need to be paid back (38% and 36% of small and large mid-caps respectively), lagging slightly behind SMEs (39%) and large companies (44%). New subsidised or guaranteed credit provision, the second most used policy tool during COVID-19 was somewhat inversely related to firm size, with 20% of SMEs declaring to have received this compared to 15% and 13% among small and large mid-caps and 10% of XL firms.

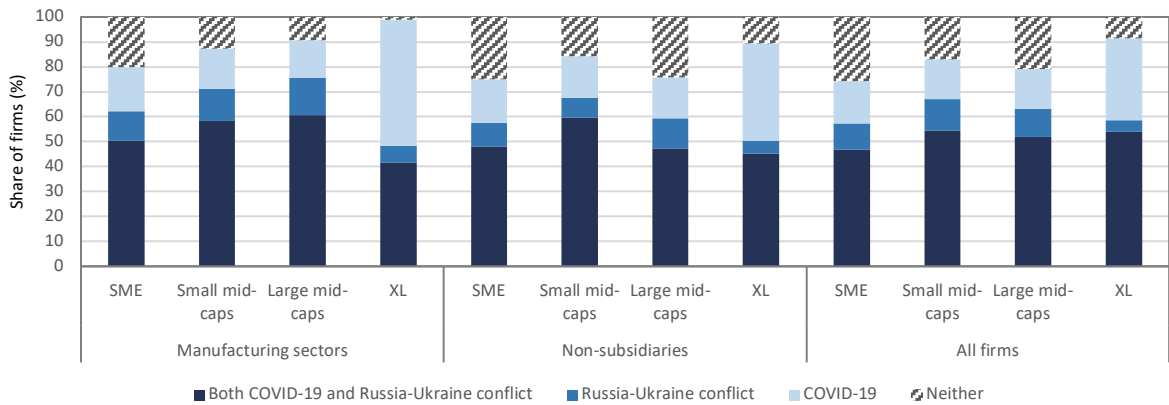
In 2022, mid—caps were also less likely to continue receiving government support in response to COVID-19 than SMEs and XL firms. Among firms that received at least one form of support during the COVID-19 pandemic, only around 13% of large and small mid-caps reported still receiving support from the government in response to COVID-19 at the time of the survey, while those numbers were almost 20% in SMEs and 15% among large firms (Figure 17).

## More exposed to supply chain disruptions

As comparatively advanced and internationalised companies, mid-caps may be especially vulnerable to unforeseen changes in supply chains and shocks in the economic environment. While XL firms were the most impacted by disruptions linked to COVID-19, mid-caps were more likely than both SMEs and XL firms to report negative impacts of supply chain disruptions linked to the Russia-Ukraine war.

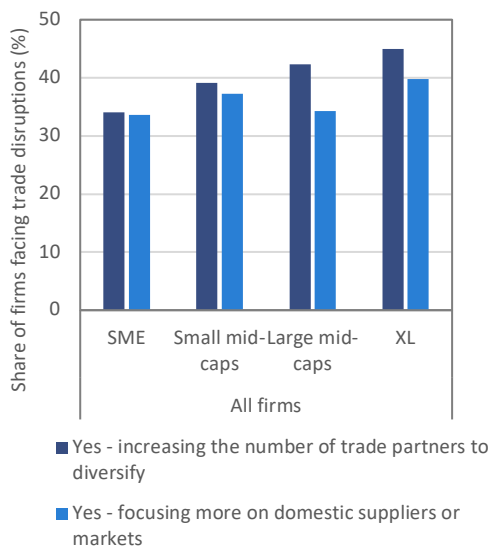
On average, 67% of small mid-caps and 63% of large mid-caps reported trade obstacles related to the Russia-Ukraine conflict, with 54% of small and 54% of large mid-caps facing obstacles due to both COVID-19 and Ukraine (Figure 18). The numbers are lower among SMEs and XLs, with less than 60% of these firms reporting such trade obstacles. Surprisingly, only 4% of XL firms reported trade disruptions due only to the Russian-Ukraine conflict, while more than 32% of XL firms report issues with COVID-19 only. This might reflect the fact that XLs are more integrated into global value chains across larger geographical areas (not only within Europe) than mid-caps and SMEs.

**Figure 18: Mid-caps are more exposed to supply chain disruptions**

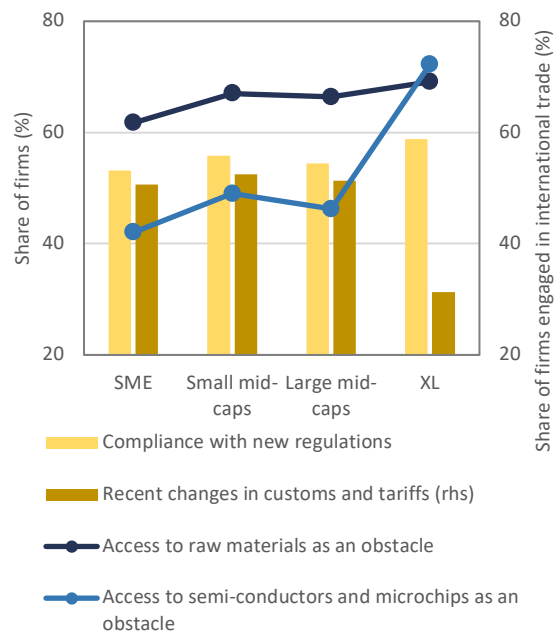


At the same time, mid-caps are taking less action against supply chain disruptions than the largest companies, by increasing the number of trade partners to diversify or by focusing more on domestic suppliers or markets (Figure 19). Reorienting or shortening supply chains requires significant planning and coordination, such as warehousing and inventory management investment, which is not as cost-effective for SMEs and mid-caps as for large companies. This corroborates the idea that mid-caps are particularly vulnerable to supply chain disruptions.

**Figure 19: Actions taken in response to supply chain disruptions**



**Figure 20: Mid-caps and SMEs more concerned about recent changes in customs and tariffs than XL firms**



In addition, asked about their concerns, mid-caps and SMEs complain more about recent changes in customs and tariffs than the largest enterprises. On average, more than half of the mid-caps and SMEs that were engaged in international trade reported that recent changes in customs and tariffs were a barrier to their business activities, compared with just over 30% of the XL companies (see Figure 20). Access to raw materials and compliance with new regulations are shared concerns across all firm sizes. Interestingly, the issue of access to semiconductors and microchips is predominantly a concern for very large firms, with over 70% expressing worry. This is significantly higher than the concern levels expressed by large mid-caps (46%), small mid-caps (49%), and SMEs (42%).

# Untapped spillovers: what mid-caps could do more

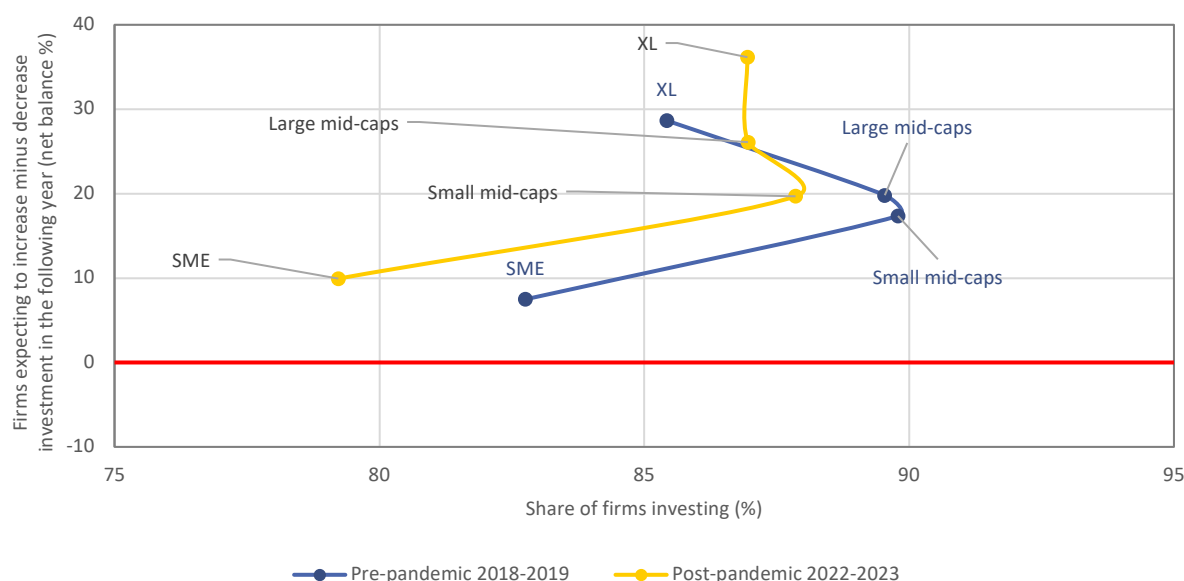
The foregoing analysis highlights mid-caps' critical position at the hard edge of Europe's economic challenges. It also suggests that there could be significant unexploited society-wide spillovers, related for instance to innovation, advanced technologies, productivity and the green transition, if mid-caps were better integrated in the formulation of policies and given incentives and means to scale and follow their own transition path.

## Showing more willingness to invest in the future

Mid-caps are key drivers for growth and job creation, but they are not operating at their full potential. EIBIS shows that mid-caps are also one of the most productive firms in the total enterprise population, with a higher propensity pre-pandemic to increase their employment than SMEs and XLs. Most significantly perhaps, mid-caps, along with XL firms, seem to be particularly forward-looking in terms of their willingness to invest.

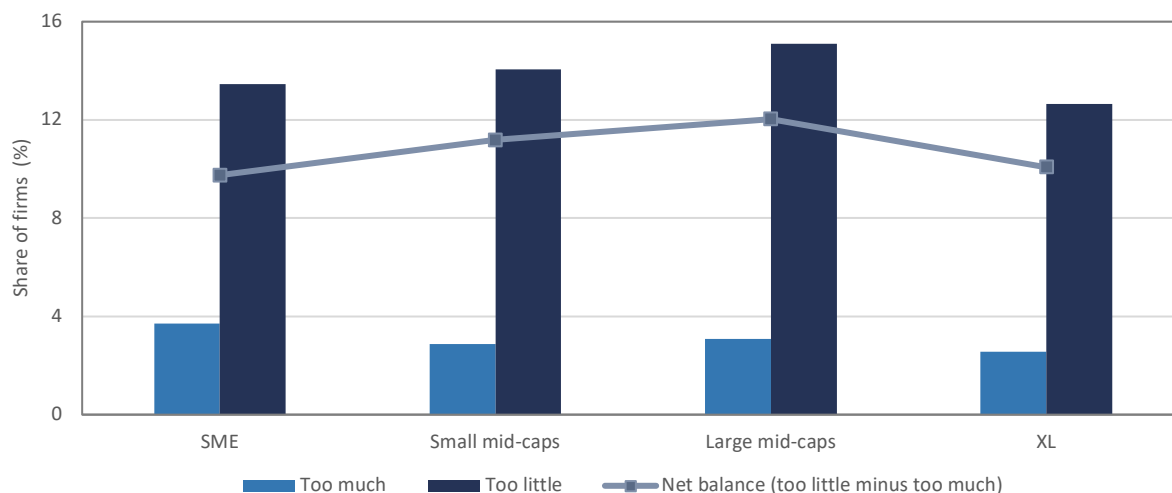
In both the pre- and post-pandemic periods, small mid-caps have the highest share of firms investing (see Figure 21). The share of mid-caps expecting to increase their investment post-pandemic is also almost double that of SMEs, albeit lower than that of large companies. Particularly, the net balance of firms expecting an increase in investment minus those expecting a decrease post-pandemic is 20% for small mid-caps and 26% for large mid-caps, compared to 10% reported by SMEs.

**Figure 21: Mid-caps are strong investors**



At the same time, despite their higher employment growth rate and investment rate, mid-caps are more likely to report investment gaps than SMEs and XL companies. This provides an early signal that mid-caps are not operating at their full potential. On average, the net balance of firms reporting having invested too little minus those reporting having invested too much is highest among large mid-caps, at 12%, and small mid-caps, at around 11% (Figure 22). For SMEs and XL firms, this is 9.8% and 10%, respectively. These higher reported investment gaps could reflect, amongst other factors, higher investment impediments reported by mid-caps. Alves et al. (2019) provide evidence that investment impediments lead to a higher level of investment gaps even after controlling for firms' characteristics.

**Figure 22: Mid-caps are more likely to report investment gaps than SMEs and XLs**



## Fulfilling the role as enablers of the European Union’s transitions

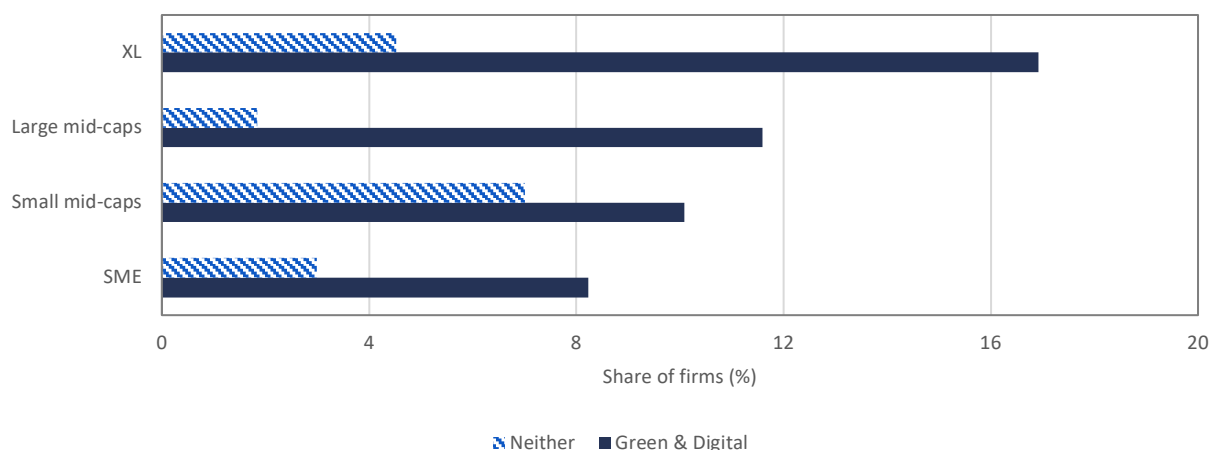
All of this points to significant untapped potential and spillovers for the European Union. If the investment gap persists, mid-caps will not only be held back from realising their full economic potential but will also be prevented from becoming even more significant actors in the European Union’s economic transitions. Economic literature highlights the spillover effects generated by these types of actions and investments could be significant.<sup>8</sup>

Not only have mid-caps got potential in terms of the digital and green transition, as discussed above, but firms participating in the digital and green twin transition are also more likely to report that they introduce innovations new to the global market. While much of this is probably a two-way effect, it nevertheless indicates that firms’ ability to transform and to innovate is largely intertwined. Irrespective of the direction of the effect, this also shows that there are potential spillover effects from investment in different areas to others, implying that support in one of the areas could have a larger impact than often anticipated (Figure 23).

In addition to being key players in terms of output, innovation, digitalisation and climate change, mid-caps are heavily engaged in international trade. It is not surprising therefore that mid-caps are more likely than SMEs and XL firms to report negative impacts of supply chain disruptions linked to the Russia-Ukraine war, especially those in the manufacturing sector. At the same time, mid-caps are less likely to take actions to mitigate international trade disruptions than XL firms, even if they are more likely to do so than SMEs (see Figure 19 above). The combination of a larger exposure to supply chain shocks and at the same time the lower likelihood of taking actions could indicate potential weaknesses for the European Union that should also be properly addressed at policy level.

<sup>8</sup> See among others Aghion, Dechezleprêtre, et al. (2016); EIB (2023); Aghion and Jaravel (2015); Dechezleprêtre, Martin and Bassi (2019).

**Figure 23: Green and digital firms are more likely to introduce innovations new to the global market**



## Answering the European Union’s scale-up problem

Lastly, mid-caps are an essential part of the EU economy as the link in the scaling-up process from SMEs to very large firms. The investment gap for mid-caps also hints at the widely known scale-up problem in the EU economy (EIB, 2019). Many innovative start-ups grow into mid-caps but lack the funding to become larger market leaders. Considering that mid-caps already have greater innovative power and more impact in driving the triple transition than SMEs, their unaddressed financing challenges constitute a missed opportunity in this regard. The potential for positive spillovers could be all the greater if mid-caps were given proper incentives and means to follow their own growth and transition path.

This study’s evidence has suggested that the smallest companies, including small mid-caps, are the least likely to receive advantageous external finance. In line with this, the share of firms perceiving finance as a long-term barrier and the share of firms expecting a deterioration in external financing conditions over the next 12 months was, on average, inversely related to size. This can be a direct consequence of the fact that smaller firms often lack the capacity to apply for such funding in the first place. An additional reason for mid-caps lagging behind might be that they are not eligible for smaller granting programmes specifically targeting SMEs. In addition, as shown above, mid-caps seem to have less access than SMEs to bank finance on concessional terms.

Many EU programmes and regulations are size-dependent. By way of example, the recent report from the European Commission (2022) provides evidence of a low participation rate of mid-caps in national and EU funding for innovation compared to large firms. Such sudden “falls” in support once a firm outgrows the productive economy across the critical green and digital value chains. Unlocking this potential would require better targeted policies in areas where the current ones do not reveal positive effects on this SME phase can generate lock-in effects in the SME size class. Policies toward mid-caps should therefore be more targeted and gradual to facilitate their capability to scale up and access new markets. Considering the characteristics of mid-caps, this suggests untapped opportunities for a bigger, more dynamic, innovative and category of firms.

## Conclusion and policy recommendations

This study has shown that mid-caps are key drivers for the economy and leading companies in various fields. It has also shown that mid-caps are not operating at their full potential. Mid-caps' further contribution to the digital, green, and economic security transitions, together with the European Union's scale-up gap, remain largely unaddressed. A significant reason for this could be the overall poor understanding of mid-caps in Europe, which in turn feeds into a general disinterest. Given the lack of a commonly agreed definition and of readily available statistical data, mid-caps have largely been absent from EU policymaking.

The aim of this report was to contribute to a better knowledge base on mid-caps by exploiting unique data, the EIB Investment Survey (EIBIS). Its purpose was also to highlight specific areas and concrete measures that could contribute to harnessing the full potential of mid-caps and unlock further spillover effects across the economy. Foremost among these measures stands the necessity to give mid-caps an EU-wide statistical identity. A better understanding of how mid-caps differentiate from SMEs and bigger firms, and what their specific opportunities and challenges are, is paramount.

A strong knowledge base in turn underpins a more effective public policy focus. Evidence in this report can be used already to point to initial policy recommendations.

- For one, EU regulation needs to be more sensitive to business size. SMEs are often targeted with support or spared the burden of regulation. Treating mid-caps as XL firms is by no means a given, optimal policy choice.
- Second, access to finance must be improved if mid-caps are not to be held back on their growth and transition paths. Both public and private funding opportunities should be developed, from tailored crisis support and dedicated financial instruments to the expansion of Europe's capital market union.
- Third and finally, a well-functioning single market is paramount for mid-caps. Companies will not scale up and grow if they face barriers rather than opportunities to do so.

The European Commission's announcement<sup>9</sup> of its intention to review the current SME definition thresholds and develop a harmonised mid-caps definition is the sign of a turning tide. Still, it is only the beginning. Unleashing the full potential of mid-caps in the EU economy will require a sustained and systematic focus across policies and regulation at member state and EU levels.

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<sup>9</sup> European Commission (2023). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions — SME Relief Package, COM (2023) 535.

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# Appendix A: Mid-caps definition and EIBIS survey

## Definition of mid-caps

There is no clear consensus on how to define mid-caps. Box A gives a concise overview of the different definitions within the European Union at large and across different member states. In the context of this report, we follow the EIB definition, defining mid-caps as firms having between 250 and 3 000 employees.

### Box A: Mid-Cap Definition

There is currently no clear consensus regarding the definition of mid-cap firms across the European Union. While some definitions only consider a firm's number of employees:

	Number of employees
<b>EIB</b>	≥ 250 and < 3 000
<b>InnovFin*</b>	Small mid-caps: ≥ 250 and < 500 Large mid-caps: ≥ 500 and < 3 000
<b>European Commission's Risk Finance Guidelines</b>	≥ 250 and < 1 500

Others consider, on top of number of employees, other factors as criteria. For instance:

- **European Commission's Risk Finance Guidelines** – distinguishes between small mid-caps (firms with ≥ 250 and < 500 employees and with an annual turnover < €100 million or a balance sheet < €86 million) and innovative mid-caps (with an operating cost share in R&D and innovation above a given threshold, dependent on certain conditions).<sup>viii</sup>
- **"Entreprise de taille intermédiaire" (INSEE, France)** – firms with ≥ 250 and < 5 000 employees and with an annual turnover < €1.5 billion or a balance sheet < €2 billion.
- **"Mittelstand" (KfW, Germany)** – considers qualitative indicators such as family ownership.

As these last two examples clearly show, on top of European Union-wide definitions, there are country specific criteria which label firms as mid-caps or not. For more examples, refer to table 3.1 in the *"Study to map, measure and portray EU mid-caps landscape"* report recently published by the European Commission.

In the context of this report, we define mid-caps in line with the EIB definition, namely having between 250 and 3 000 employees. Nevertheless, we further split mid-caps into small and large mid-caps given the different definitions prevalent at the national level, as well as the distinction adopted by InnovFin. In addition, we compare small and large mid-caps to SMEs and XL firms, resulting in the following categories of enterprises:

	Number of employees
<b>SME</b>	< 250
<b>Small mid-caps</b>	≥ 250 and < 500
<b>Large mid-caps</b>	≥ 500 and < 3 000
<b>XL firms</b>	≥ 3 000

\*joint initiative between the EIF, EIB and EC under Horizon 2020.

## EIBIS survey data

The EIBIS is a unique survey, conducted annually by the European Investment Bank (EIB) since 2016, providing details on the investment and financing decisions of EU non-financial corporates (including SMEs, mid-caps and very large (XL) firms). Each year, the EIBIS completes about 12 000 interviews with EU firms. Since 2019, it also includes about 800 companies in the United States. This provides a valuable benchmark for understanding the similarities and differences in investment and financing patterns between the two regions.

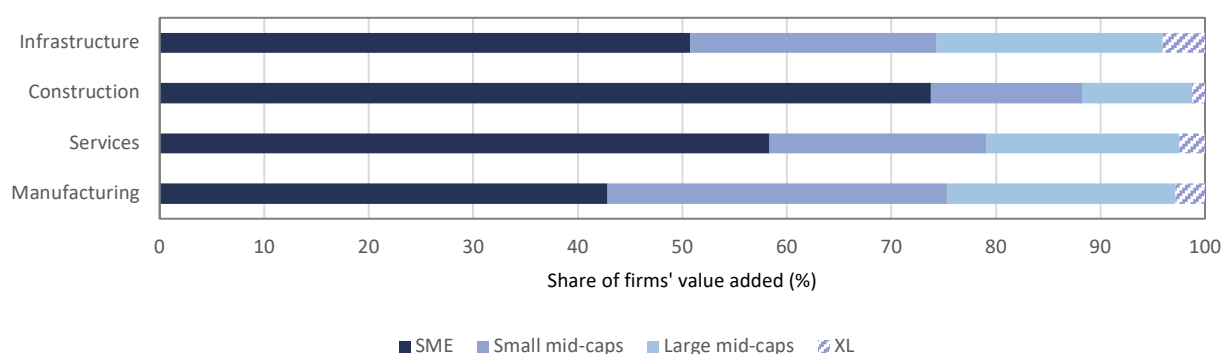
In the main text, unless otherwise specified, we consolidate the results obtained from several vintages of the survey, from 2018 to 2023. This allows for robust and representative analysis of mid-caps, which are often under-represented in other surveys due to their relatively small sample sizes and limited visibility. We consider SMEs, small mid-caps, large mid-caps and large (XL) companies.

## Mid-caps in the EIBIS

Aggregating all five waves of the EIBIS from 2018 to 2023 for this analysis, we end up with 5 610 observations concerning small mid-caps and 4 374 observations that belong to the large mid-caps' category. In addition, we cover 61 201 SMEs and 581 XL companies.

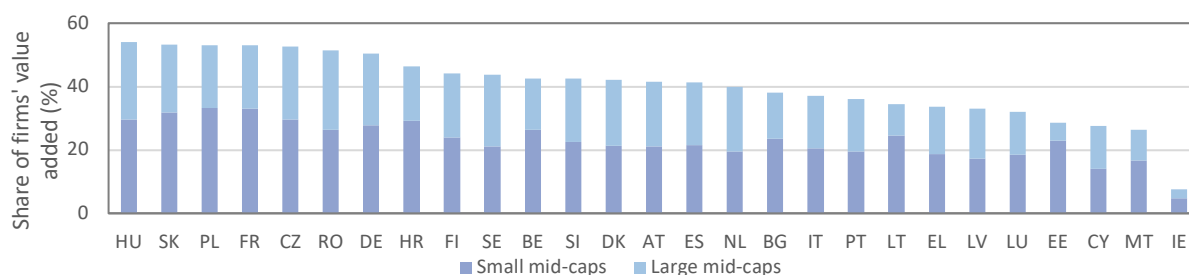
By value added, mid-caps are mainly present in manufacturing and infrastructure. According to the survey, mid-caps represent 45% of companies' value added in the economy, compared to 52% of SMEs and 3% of XL companies. Of course, there are some important differences across sectors, with mid-caps representing over half of firms' value added in manufacturing (54%) and slightly less than half in infrastructure (45%). In services and construction, this share drops to 39% and 25%, respectively, with the latter having as much as 74% SMEs (see Figure A1).

**Figure A 1: Mid-caps are mainly represented in infrastructure and manufacturing**



Across countries, mid-cap presence also varies. In some countries, more than half of their firms are labelled as mid-caps according to our definition, while this is substantially less for some other countries (see Figure A 2). The dispersion across countries is also confirmed by the European Commission (2022).<sup>10</sup>

**Figure A 2: Geographical distribution of mid-caps**



<sup>10</sup> The differences in country ranking across the different reports may be driven by a variety of factors. Our results are based on a representative sample of non-financial corporates across sectors C to J and all results are weighted by value added.

## Appendix B: Figure Notes and Explanation

Sources and notes for each figure used in the report are listed below.

Figure 1	<p><i>Q. Can you estimate what the business' total investment was in the last financial year with the intention of maintaining or increasing your company's future earnings?</i></p> <p><i>Q. How many people does your company employ either full or part-time at all its locations, including yourself?</i></p> <p><i>Note: share of firms investing shows the percentage of firms with an investment per employee greater than €500.</i></p> <p><i>Base includes all firms (excluding don't know/refused responses) – 69 221 observations.</i></p> <p><i>EIBIS Wave 2018-2023.</i></p>
Figure 2	<p><i>Q. Can you estimate what the business' total investment was in the last financial year with the intention of maintaining or increasing your company's future earnings?</i></p> <p><i>Q. How many people does your company employ either full or part-time at all its locations, including yourself?</i></p> <p><i>Note: investment intensity is winsorised at the 1st and 99th percentile by wave, country and sector.</i></p> <p><i>Base includes all firms (excluding don't know/refused responses) – 38 039 observations (of which 20 583 for the manufacturing sector and 17 456 for the services sector).</i></p> <p><i>EIBIS Wave 2018-2023.</i></p>
Figure 3	<p><i>Q. Were the products, processes, and services new to the company, new to the country or new to the global market?</i></p> <p><i>Q. In the last financial year, how much did your business invest in each of the following with the intention of maintaining or increasing your company's future earnings?</i></p> <p><i>Note: we define here innovative products/services those that are new to the country or the world.</i></p> <p><i>Base includes all firms that have invested in the last financial year (excluding don't know/refused responses) – 70 100 and 57 975 observations (innovation activity and R&amp;D activity, respectively).</i></p> <p><i>EIBIS Wave 2018–2023.</i></p>
Figure 4	<p><i>Q. Looking ahead to the next three years, which of the following is your investment priority: (a) replacing capacity (including existing buildings, machinery, equipment, and IT); (b) capacity expansion for existing products/services; (c) developing or introducing new products, processes, or services?</i></p> <p><i>Note: we define as no investment planned the case in which none of the proposed options is indicated by the company.</i></p> <p><i>Base includes all firms (excluding don't know/refused responses) – 70 455 observations.</i></p> <p><i>EIBIS Wave 2018-2023.</i></p>
Figure 5	<p><i>Q. In the last financial year, how much did your business invest in each of the following with the intention of maintaining or increasing your company's future earnings?</i></p> <p><i>Notes: share of firms investing in training shows the percentage of firms investing at least €50 per employee. Training intensity is winsorised at the 1st and 95th percentile by wave, country and sector.</i></p> <p><i>Base includes all firms that have invested in the last financial year (excluding don't know/refused responses) – 64 112 observations.</i></p> <p><i>EIBIS Wave 2018-2023.</i></p>
Figure 6	<p><i>Q. How many people does your company employ either full or part-time at all its locations, including yourself?</i></p> <p><i>Q. What was the approximate turnover of the company in the last financial year?</i></p> <p><i>Note: labour productivity is measured as turnover per employee. Labour productivity is winsorised at the 1st and 95th percentile by country, sector and wave.</i></p>

	<p><i>Base includes all firms (excluding don't know/refused responses) – 64 112 and 69 687 observations (training intensity and labour productivity, respectively).</i></p> <p><i>EIBIS Wave 2018-2023.</i></p>
Figure 7	<p><i>Q. How many people does your company employ either full or part-time at all its locations, including yourself?</i></p> <p><i>Q. How many people did your company employ either full or part-time at all its locations three years ago?</i></p> <p><i>Note: we define medium growth (between 10% and 20% of annualised employment growth over three years) and high growth (20% or more of annualised employment growth over three years).</i></p> <p><i>Base includes all firms (excluding don't know/refused responses). We also further restrict medium- and high-growth firms to only firms with a minimum of ten (full-time equivalent) employees. We exclude EIBIS Wave 2021 since the question is different – 56 636 and 16 882 observations (all firms and manufacturing firms only, respectively).</i></p> <p><i>EIBIS Wave 2018-2020 and EIBIS 2022-2023.</i></p>
Figure 8	<p><i>In waves 2022-2023: Q. To what extent, if at all, are each of the following digital technologies used within your business? Please say if you do not use the technology within your business.</i></p> <p><i>In waves 2019-2021: Q. Can you tell me for each of the following digital technologies if you have heard about them, not heard about them, implemented them in parts of your business, or whether your entire business is organised around them?</i></p> <p><i>Note: reported shares combine firms that implement the technology 'in parts of business' as well as those that have 'entire business organised around it'. 'Single technology' is where firms used one of the technologies asked about, while 'Multiple technologies' is where firms have used more than one of the technologies asked about. Question wording changed in wave 2022 relative to previous waves, so comparisons between waves 2022 and 2023 should not be made with previous waves.</i></p> <p><i>Base includes all firms (excluding don't know/refused responses) – 59 742 observations.</i></p> <p><i>EIBIS Wave 2019-2023.</i></p>
Figure 9	<p><i>In waves 2022-2023: Q. Which of the following applies to your company regarding investments to tackle the impacts of weather events and to help reduce carbon emissions?</i></p> <p><i>In waves 2020-2021: Q. Now thinking about investments to tackle the impacts of weather events and to deal with the process of reduction in carbon emissions, which of the following applies?</i></p> <p><i>Note: question wording changed in wave 2022 relative to previous waves, with an additional answer option having been included. Thus, comparisons with previous waves should be treated with caution.</i></p> <p><i>Base includes all firms (excluding don't know/refused responses) – 46 804 observations.</i></p> <p><i>EIBIS Wave 2020-2023.</i></p>
Figure 10	<p><i>Q. What proportion of the total investment in the last financial year was primarily for measures to improve energy efficiency in your organisation?</i></p> <p><i>Q. Is your company investing or implementing any of the following, to reduce greenhouse gas (GHG) emissions?</i></p> <p><i>Q. Thinking about your company, what impact do you expect this transition to stricter climate standards and regulations will have on your company over the next five years?</i></p> <p><i>Note: we define as green innovators all firms investing in new, less polluting business areas and technologies.</i></p> <p><i>Base includes all firms (excluding don't know/refused responses) – 71 766, 23 920 and 33 989 observations (energy efficiency, green innovation and transformation, and climate transition, respectively.)</i></p> <p><i>EIBIS Wave 2018-2023 (energy efficiency), EIBIS Wave 2022-2023 (green innovation and transformation) and EIBIS 2021-2023 (climate transition).</i></p>
Figure 11	<p><i>In waves 2022-2023: Q. Which of the following applies to your company regarding investments to tackle the impacts of weather events and to help reduce carbon emissions?</i></p>

	<p><i>In waves 2020-2021: Q. Now thinking about investments to tackle the impacts of weather events and to deal with the process of reduction in carbon emissions, which of the following applies?</i></p> <p><i>Q. To what extent, if at all, are each of the following digital technologies used within your business? Please say if you do not use the technology within your business.</i></p> <p><i>Note: a firm is classified as ‘green’ if it has already invested or will carry out investment to tackle the impacts of climate change in the year it was surveyed and ‘digital’ if it uses at least one advanced digital technology.</i></p> <p><i>Base includes all firms (excluding don’t know/refused responses) – 46 695 observations.</i></p> <p><i>EIBIS Wave 2020-2023.</i></p>
Figure 12	<p><i>In wave 2023: Q. In 2022, did your company export or import goods and/or services?</i></p> <p><i>In wave 2022: Q. In 2021, did your company export or import goods and/or services?</i></p> <p><i>Q. Is your company a subsidiary of another company?</i></p> <p><i>Note: the base size for XL firms is low (&lt; 30 observations per sector).</i></p> <p><i>Base includes all firms (excluding don’t know/refused responses) – 23 953, 7 156 and 17 646 observations (all firms, manufacturing firms only, and non-subsidary firms only, respectively).</i></p> <p><i>EIBIS Wave 2022-2023.</i></p>
Figure 13	<p><i>Q. Is your company a subsidiary of another company?</i></p> <p><i>Q. Approximately what proportion of your investment in the last financial year was financed by each of the following?</i></p> <p><i>Note: intra-group funding is registered only for subsidiaries.</i></p> <p><i>Base includes all firms that invested in the last financial year (excluding don’t know/refused responses) – 56 153, 44 893 and 11 252 observations (all firms, non-subsidary firms only, and subsidiary firms only, respectively) for both the source and the use of external finance.</i></p> <p><i>EIBIS Wave 2018-2023.</i></p>
Figure 14	<p><i>Q. Which of the following types of external finance did you use for your investment activities in the last financial year?</i></p> <p><i>Note: external finance is divided into newly issued bonds and newly issued equity.</i></p> <p><i>Base includes all firms using external finance (excluding don’t know/refused responses) – 25 484 and 1 401 observations (European Union and United States, respectively). EIBIS Wave 2018-2023.</i></p>
Figure 15	<p><i>Q. Which of the following types of external finance did you use for your investment activities in the last financial year?</i></p> <p><i>Q. Was any of the bank finance you received on concessional terms (subsidised interest rates, longer grace period to make debt payments)?</i></p> <p><i>Note: share of firms who received bank finance on concessional terms is available only for 2022 since the relative question was introduced in that wave.</i></p> <p><i>Base includes all firms using external finance (excluding don’t know/refused responses) – 4 110 and 25 484 observations (firms receiving bank finance on concessional terms, and firms receiving grants, respectively).</i></p> <p><i>EIBIS Wave 2018-2023 (share of firms who received external finance in the form of grants); EIBIS Wave 2022 (share of firms who received bank finance on concessional terms).</i></p>
Figure 16	<p><i>Q. Since the start of the pandemic, have you received any financial support?</i></p> <p><i>Note: question introduced in waves 2021 and 2022 only.</i></p> <p><i>Base includes all firms (excluding don’t know/refused) – 23 802 observations.</i></p> <p><i>EIBIS Wave 2021-2022.</i></p>
Figure 17	<p><i>Q. Since the start of the pandemic, have you received any financial support?</i></p> <p><i>Q. Are you still receiving (any of) this financial support?</i></p>

	<p><i>Note: question introduced in wave 2022 only.</i></p> <p><i>Base includes all firms that received at least a form of support during the COVID-19 pandemic (excluding don't know/refused) – 7 053 observations.</i></p> <p><i>EIBIS Wave 2022.</i></p>
Figure 18	<p><i>Q. You have just said that you experienced (an obstacle/obstacles) to your business activities since 2021. Did COVID-19 and/or the Russia-Ukraine conflict, including the sanctions imposed by the international community, contribute to this in any way?</i></p> <p><i>Q. Is your company a subsidiary of another company?</i></p> <p><i>Note: question introduced in wave 2022 only. Caution: low base size for XL firms (&lt; 30 observations per sector).</i></p> <p><i>Base includes all firms (excluding don't know/refused responses/not applicable) – 11 297, 3 478 and 8 247 observations (all firms, manufacturing firms only, and subsidiary firms only, respectively).</i></p> <p><i>EIBIS Wave 2022.</i></p>
Figure 19	<p><i>Q. Is your company taking any actions to mitigate the impact of these disruptions?</i></p> <p><i>Note: question introduced in wave 2022 only. We define as possible actions either increasing the number of trade partners to diversify or focusing more on domestic suppliers/markets.</i></p> <p><i>Base includes all firms facing trade disruptions that are linked to the Russia-Ukraine war (excluding don't know/refused responses) – 9 265 observations.</i></p> <p><i>EIBIS Wave 2022.</i></p>
Figure 20	<p><i>Q. Since the beginning of 2022, were any of the following an obstacle to your business's activities?</i></p> <p><i>Note: question introduced in wave 2023 only.</i></p> <p><i>Base includes all firms (excluding don't know/refused/not applicable responses), except for recent changes in customs and tariffs, for which it includes all importers and exporters (excluding don't know/refused/not applicable responses) – 9 946, 7 807, 11 283 and 6 692 observations (access to raw materials as an obstacle, access to semi-conductors as an obstacle, compliance with new regulations, and recent changes in customs and tariffs, respectively).</i></p> <p><i>EIBIS Wave 2023.</i></p>
Figure 21	<p><i>Q. For the current financial year, do you expect your total investment spend to be...</i></p> <p><i>Q. Have you already invested, or do you expect to invest, in the current financial year?</i></p> <p><i>Note: share of firms investing shows the percentage of firms with an investment per employee greater than €500.</i></p> <p><i>Base includes all firms (excluding don't know/refused responses) – 48 760 and 50 881 observations (share of firms investing and share of firms expecting to increase/decrease investments, respectively).</i></p> <p><i>EIBIS Wave 2018-2019 and 2022-2023.</i></p>
Figure 22	<p><i>Q. Looking back at your investment over the last three years, was it too much, too little or about the right amount? Note: net balance (%) refers to the difference between the share of firms replying "invested too much" minus the share of firms replying "invested too little".</i></p> <p><i>Base includes all firms with an investment per employee greater than €500 in the last financial year (excluding 'Company did not exist three years ago' responses) – 54 165 observations.</i></p> <p><i>EIBIS Wave 2018-2023.</i></p>
Figure 23	<p><i>Q. Were the products, processes, and services new to the company, new to the country or new to the global market?</i></p> <p><i>Note: we define here innovative products/services as those that are new to the world.</i></p> <p><i>Base includes all firms that have invested in the last financial year (excluding don't know/refused responses) – 11 612 and 14 602 observations (green &amp; digital firms, and non-green &amp; non-digital firms, respectively).</i></p> <p><i>EIBIS Wave 2020-2023.</i></p>

Figure A 1	<p><i>Note: we define mid-caps in line with the EIB definition.</i></p> <p><i>Base includes all firms – 71 766 observations.</i></p> <p><i>EIBIS Wave 2018-2023.</i></p>
Figure A 2	<p><i>Note: we define mid-caps in line with the EIB definition.</i></p> <p><i>Base includes all firms – 71 766 observations.</i></p> <p><i>EIBIS Wave 2018-2023.</i></p>







# Hidden champions, missed opportunities

## Mid-caps' crucial roles in Europe's economic transition



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