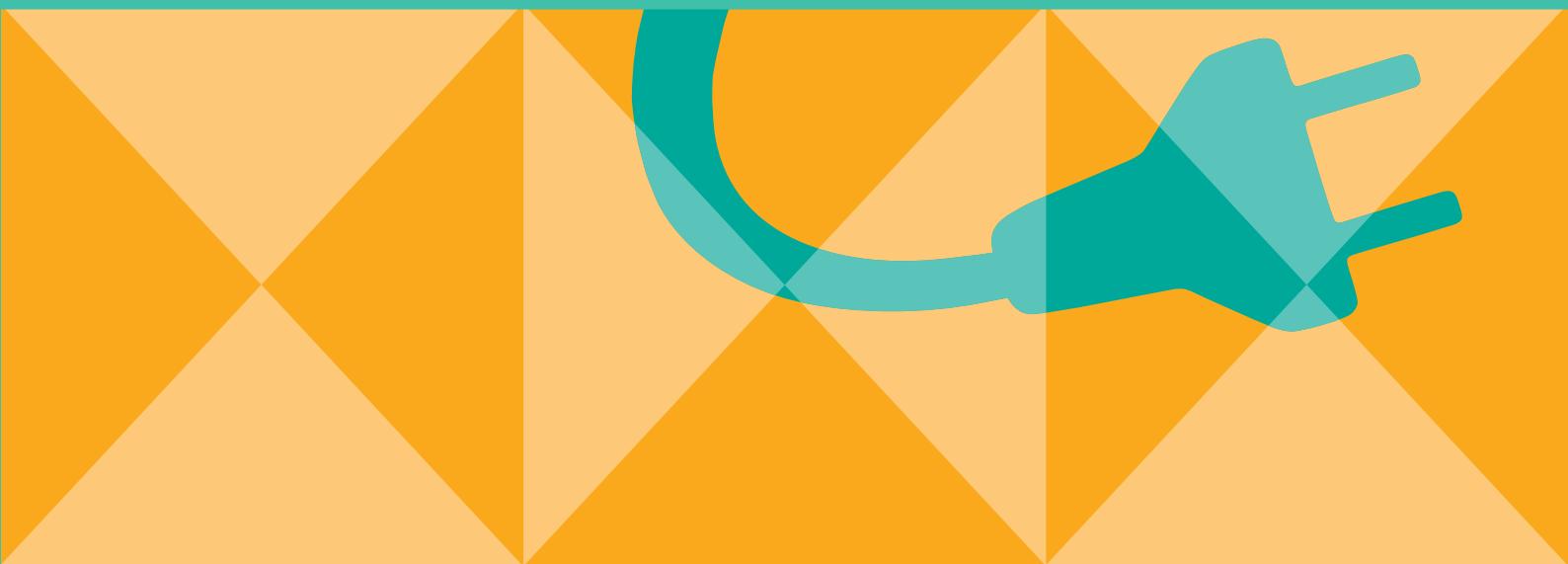


GOING GREEN

Who is investing in energy efficiency,
and why it matters



Going green

Who is investing in energy efficiency
and why it matters

June 2020



Going green: Who is investing in energy efficiency, and why it matters

© European Investment Bank, 2020.

All rights reserved.

All questions on rights and licensing should be addressed to publications@eib.org.

About the EIB Investment Survey (EIBIS)

The EIB Group Survey on Investment and Investment Finance is a unique, annual survey of some 13 500 firms. It comprises firms in all EU Member States, as well as a sample of US firms which serves as a benchmark. It collects data on firm characteristics and performance, past investment activities and future plans, sources of finance, financing issues and other challenges that businesses face. Using a stratified sampling methodology, EIBIS is representative across all Member States of the EU and for the US, as well as for firm size classes (micro to large) and four main sectors. It is designed to build a panel of observations to support time series analysis, observations that can also be linked to firm balance sheet and profit and loss data. EIBIS has been developed and is managed by the Economics Department of the EIB, with support for development and implementation by Ipsos MORI.

For more information see: <http://www.eib.org/eibis>.

About this publication

This is a report of the EIB Economics Department. The data source for this report is the EIB Investment Survey (EIBIS) 2019. Results are weighted by industry group (sector), firm size class and country. The methodology of the EIBIS survey is available at: <https://www.eib.org/en/about/economic-research/surveys-data/about-eibis>.

Contact: eibis@eib.org

About the Economics Department of the EIB

The mission of the EIB Economics Department is to provide economic analyses and studies to support the Bank in its operations and in the definition of its positioning, strategy and policy. The Department, a team of 40 economists, is headed by Debora Revoltella, Director of Economics.

Main contributors to this publication

Fotios Kalantzis, Konstantinos Niakaros.

Disclaimer

The views expressed in this publication are those of the authors and do not necessarily reflect the position of the EIB.

For further information on the EIB's activities, please consult our website, www.eib.org. You can also contact our InfoDesk, info@eib.org.

Published by the European Investment Bank.

Printed on FSC Paper.

pdf: QH-03-20-411-EN-N ISBN 978-92-861-4712-8 DOI 10.2867/28919

eBook: QH-03-20-411-EN-E ISBN 978-92-861-4711-1 DOI 10.2867/133283

CONTENTS

| | |
|----------------|-----|
| Foreword | 1 |
| Overview | 3 |
| Austria | 15 |
| Belgium | 19 |
| Bulgaria | 23 |
| Croatia | 27 |
| Cyprus | 31 |
| Czech Republic | 35 |
| Denmark | 39 |
| Estonia | 43 |
| Finland | 47 |
| France | 51 |
| Germany | 55 |
| Greece | 59 |
| Hungary | 63 |
| Ireland | 67 |
| Italy | 71 |
| Latvia | 75 |
| Lithuania | 79 |
| Luxembourg | 83 |
| Malta | 87 |
| Netherlands | 91 |
| Poland | 95 |
| Portugal | 99 |
| Romania | 103 |
| Slovakia | 107 |
| Slovenia | 111 |
| Spain | 115 |
| Sweden | 119 |
| United Kingdom | 123 |

FOREWORD

Investments in energy efficiency improvements are vital to ensure Europe's future as a sustainable, yet prosperous economy. The benefits are enormous: these investments contribute to abating greenhouse gas emissions, improving the competitiveness of European businesses, and enhancing Europe's energy security. This is why European leaders are placing energy efficiency at the heart of their strategy to make Europe the first climate-neutral continent by 2050.

Yet, amid the COVID-19 crisis, there is a great risk of losing sight of the benefits of energy efficiency investments by European firms, just at a time when we really must accelerate our efforts. Because of the crisis, businesses and policy-makers are prioritising short-term measures to ensure that firms survive, rather than investing for the long-term. At the same time, the collapse of global energy prices has weakened incentives for green energy investments of all kinds, including energy efficiency.

We must not lose sight of the long-term investment needs of European firms. The EIB Investment Survey (EIBIS) provides a unique source of data that highlights how more investment in energy efficiency is needed. An annual survey of some 12 000 firms from all EU countries, it provides information on investment conditions, activities and financing needs, with micro-data allowing for in-depth analysis. In this report we examine the quality of firms' building stock, their spending on energy efficiency measures and the factors that influence their decisions regarding that investment.

In 2019, more than a third of EU firms took measures to improve energy efficiency, a slight improvement over 2018. While this is encouraging, energy efficiency is still a low priority, especially considering the potential gains for firms. On average, EU firms believe that only a third of their building stock meets high energy efficiency standards.

This is so despite the relatively high cost of energy in Europe and the fact that energy cost concerns are becoming an important determinant of firms' investment decisions. EIBIS data reveal that both high-quality information and advanced management practices make a crucial difference in the likelihood of investment in energy efficiency. Energy audits notably play an important role in supporting energy efficiency investment decisions.

The response of the European countries and institutions to the deep recession caused by the COVID-19 pandemic has so far focused on mitigating the hopefully short-run threat to firms and jobs. Attention is turning, however, to the question of how Europe can rebuild. At a time when firms across the European economy are looking to the public sector for support, there is an excellent opportunity to combine immediate relief with action that helps ensure a competitive, prosperous and sustainable future.

Going green: Who is investing in energy efficiency, and why it matters

If we are to achieve a carbon-neutral economy, in a timespan that will help avert catastrophic changes to the global climate, then there can be no room for complacency. Delay will only result in higher costs, more stranded assets and a more painful energy transition in the end. Unavoidably, European firms must play their part. To do this, they need clear energy policy signals, clear information and clear incentives. They need a regulatory framework that is supportive, yet also pushes for higher energy building performance standards. Lastly, it is essential to ensure that financing conditions also facilitate timely investment by firms to realise the enormous gains that can be achieved through energy efficiency improvements.



Debora Revoltella

Director, Economics Department
European Investment Bank

OVERVIEW

While the COVID-19 emergency has overshadowed other policy goals in the short term, climate change will continue to be at the top of the European Union's political agenda for many years to come. European leaders want to make Europe the first climate-neutral continent by 2050, while ensuring a just transition to a less CO₂-intensive energy mix for those for whom this change will be the most difficult. To achieve this, a long-term EU low carbon strategy is under development, based on the European Commission's "A Clean Planet for All" strategy, published in November 2018. The new strategy will almost certainly envisage a role for all actors, including firms in all sectors of the economy, in the transition towards climate neutrality – among other things, by investing in energy-saving technologies.

Energy efficiency is a key pillar of the European Union's long-term strategic vision for a prosperous, modern, competitive and climate-neutral economy. It holds the combined potential of increasing firms' competitiveness, enhancing energy security and abating greenhouse gas emissions. With structurally higher energy prices in Europe¹, EU firms have been traditionally facing growing incentives to invest in energy efficiency measures to control energy costs and remain competitive in the globalised business environment. Energy costs can affect firms' investment decisions and their financial performance in a number of ways, given that energy serves as one of the key inputs to production processes of goods and services.

In early 2020, the COVID-19 pandemic might prove to be a game changer in clean energy investment decisions. The global recession will be deeper than the ones that followed the 2008 global financial crisis and the Great Depression in the 1930s. In parallel, global energy and commodity prices are collapsing, weakening the incentives for clean energy investments, including those in energy efficiency. In this context, a better understanding of firms' investment decisions in energy efficiency measures and their key determinants is necessary to design appropriate policy actions and maintain the momentum for climate action.

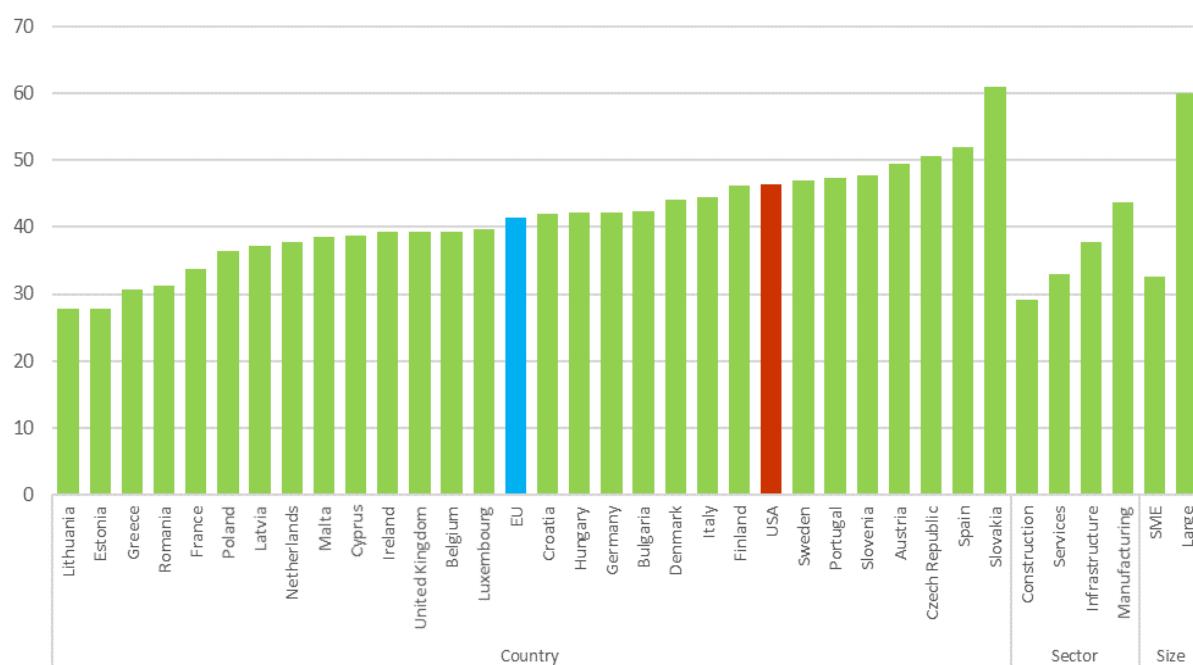
This chapter provides a brief overview of firms' investments in energy efficiency measures and the role of various factors in their decisions, based on the EIB Investment Survey (EIBIS). The EIBIS has been conducted annually since 2016 and includes interviews with some 12 000 firms from all EU countries, size classes and main sectors, offering qualitative and quantitative information about their investment activities, their financing needs and the difficulties they face. This chapter examines and discusses the answers given by firms concerning their spending on energy efficiency measures, the quality of their building stock, and the role of various factors in their energy efficiency investment decisions. These answers are compared across countries, sectors and firm sizes to identify areas for potential improvement and target setting.

¹ European Commission, Communication "Energy prices and costs in Europe", COM (2019) 1 final.

Energy efficiency investments are a low priority for EU firms

In 2019, more than 40% of EU firms took measures to improve energy efficiency, showing an increase over 2018 results. Slovakia displayed the highest percentage of firms investing in energy efficiency, with 61% of firms investing in those activities. Spain, the Czech Republic, Austria, Slovenia, Portugal and Sweden followed. These seven EU countries showed a greater share of firms investing in energy efficiency than in the United States, where 47% of firms invested in energy efficiency. By contrast, Lithuania, Estonia, Greece, Romania and France were at the other end of the spectrum, a ranking almost unchanged from the previous year.

Figure 1: Share of firms investing in energy efficiency measures (%)



Source: EIBIS

Base: All firms (data not shown for those who said don't know/refused)

Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

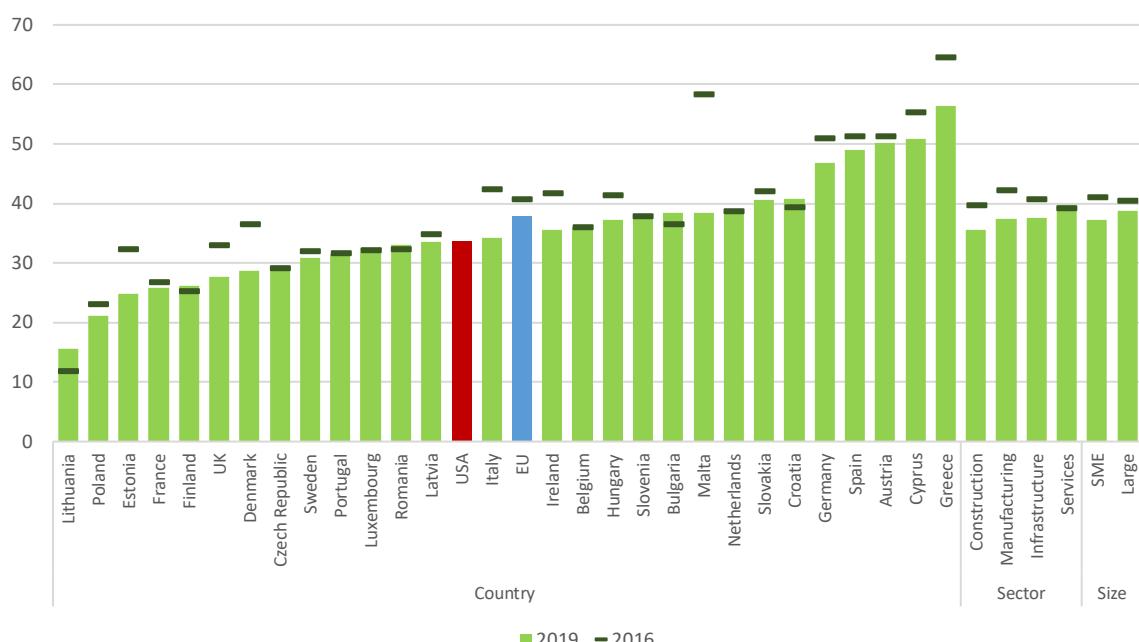
The share of firms investing in energy efficiency appears to be positively associated with the energy intensity and size of firms. In particular, manufacturing, the most energy-intensive sector, presented the highest share of firms investing in energy efficiency (43% in 2019), followed by infrastructure (37%) and services (30%). The construction sector displayed the lowest share of firms investing in energy efficiency with 25%. Finally, large firms were twice as likely to invest in energy efficiency than SMEs.

The untapped potential of energy savings is high, as EU firms consider their building stock of relatively low quality

In 2019, EU firms reported a third of their commercial building stock to be of high or highest energy efficiency standards, higher than in the United States (Figure 2). Still, since 2016, the firms' perceptions of the quality of their building stock has deteriorated. This seems to suggest that most of Europe's existing building stock may not yet meet recently-adopted energy performance requirements in the Energy Performance Directive and the Energy Efficiency Directive and that we are still to witness the improvement of the stock as it is brought up to the new standards.

The opinion of firms on the quality of their building stock varies considerably across countries and regions. Firms located in the south of Europe – notably in Greece, Cyprus and Spain – believe that more than 50% of their building stock satisfies high or highest energy efficiency standards, almost four times more than firms in Lithuania, which say that only 16% of their building stock is energy-efficient. Firms in the Baltics have the most pessimistic views about the quality of their building stock than any other EU region. Part of the cross-country differences could be explained by differences in culture, expectations, technical information and environmental objectives. These factors affect firms' beliefs on building stock performance when assessing various aspects, such as thermal comfort, air quality, activity noise, light quality and environmental control.²

Figure 2: Building stock of high or highest energy efficiency standards (%)



Source: EIBIS

Base: All firms (data not shown for those who said don't know/refused)

Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?

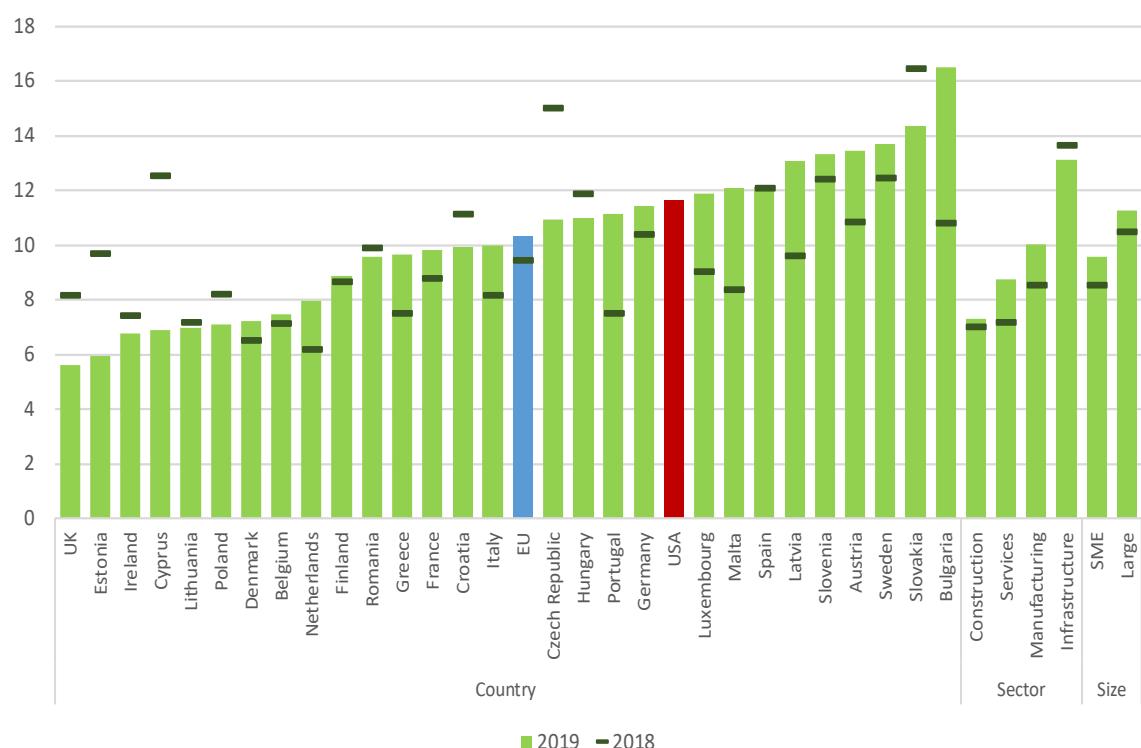
² Notably, there is a strong correlation between firms' perceptions of their buildings' energy efficiency standards, and their perception of whether their machinery and equipment is "state-of-the-art".

Differences are observed between sectors, but they are relatively small. Across sectors, EU firms in the services sector believed that 40% of their buildings satisfied higher energy efficiency standards (Figure 2). In the construction sector, this figure is lower (35%). On a positive note, the perception by firms in the construction sector about the quality of their buildings has improved over the last three years. By contrast, EIBIS data show that firms in the infrastructure and manufacturing sectors became more pessimistic about their buildings' quality. It is possible that these perceptions may be driven by the average age of existing buildings and the share of new buildings in the total stock of firms. This means that the higher the share of recent dwellings built with more efficient standards, the higher the perceived energy performance of the stock. In 2019, SMEs and large firms had similar opinions about the quality of their building's stock.

The share of energy efficiency improvements in total investments by firms is approximately the same on both sides of the Atlantic

In 2019, European firms spent 10% of their total investment on energy efficiency improvements, whereas this proportion for US firms was 12% (Figure 3). The good news is that both the share of EU firms that invested in energy efficiency measures, as well as their spending on such measures, increased between 2018 and 2019.

Figure 3: Share of firms' total investment in measures to improve energy efficiency (%)



Source: EIBIS

Base: All firms (data not shown for those who said don't know/refused)

Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Spending on energy efficiency improvements is higher in energy-intensive sectors and larger firms, in which energy is a significant cost determinant. In 2019, firms in the infrastructure and manufacturing sectors (which are relatively energy-intensive) spent 13% and 10%, respectively, of their total investment budget on measures to improve their energy savings. By contrast, firms in the services sector and the construction sector spent less, 9% and 7.5% respectively, of their total investment budget. Similarly, the share of energy efficiency-related investment expenditure is higher for larger firms compared to smaller firms.

The share of firms' total investment budget that goes to energy efficiency improvements varies widely across EU members. In 2019, firms in Bulgaria spent more on energy efficiency projects (16%) than firms in any other EU country and especially those in the United Kingdom, which invested only 5% of their investment budget. Firms' spending in each country varied significantly between 2018 and 2019, possibly affected by the fact that energy efficiency investments are non-recurring investments. Generally, firms in some Southern and Eastern European countries spend relatively more on energy efficiency improvements than in other European regions, particularly the Baltics.

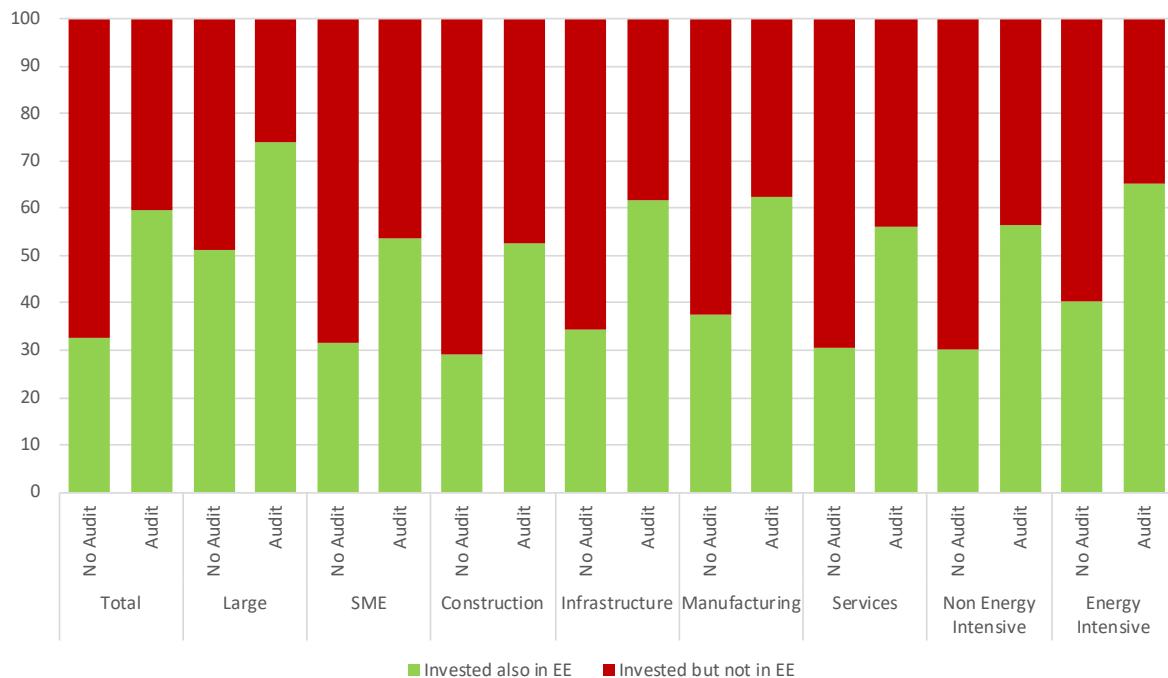
Firms' awareness of energy efficiency benefits is critical for the uptake of energy efficiency measures

In 2019, the share of firms investing in energy efficiency measures was considerably higher for firms with an energy audit. On average, three in five firms that carried out an energy audit also invested in energy efficiency. The relationship between energy efficiency investments and energy audits is more pronounced in large³ firms (74%) and those that operate in the infrastructure and manufacturing sectors (around 60% for both). The crucial role of energy audits in overcoming the information barriers to energy efficiency investments is also apparent when assessing firms' investment decisions without an energy audit ([Figure 4](#)). These firms appear to invest substantially in areas other than energy efficiency, possibly because they fail to understand the potential direct and indirect benefits of energy-saving technologies.

³ According to Article 8 of the Energy Efficiency Directive (EED 2012/27/EC), energy audits are mandatory for large firms in the EU. However, various Member States apply different criteria for granting derogations from the rule, such as annual energy consumption, share of energy costs in sales, level of sales, assets, application of an energy management system, etc.

Going green: Who is investing in energy efficiency, and why it matters

Figure 4: Share of firms investing in energy efficiency, with and without an energy audit (%)



Source: EIBIS

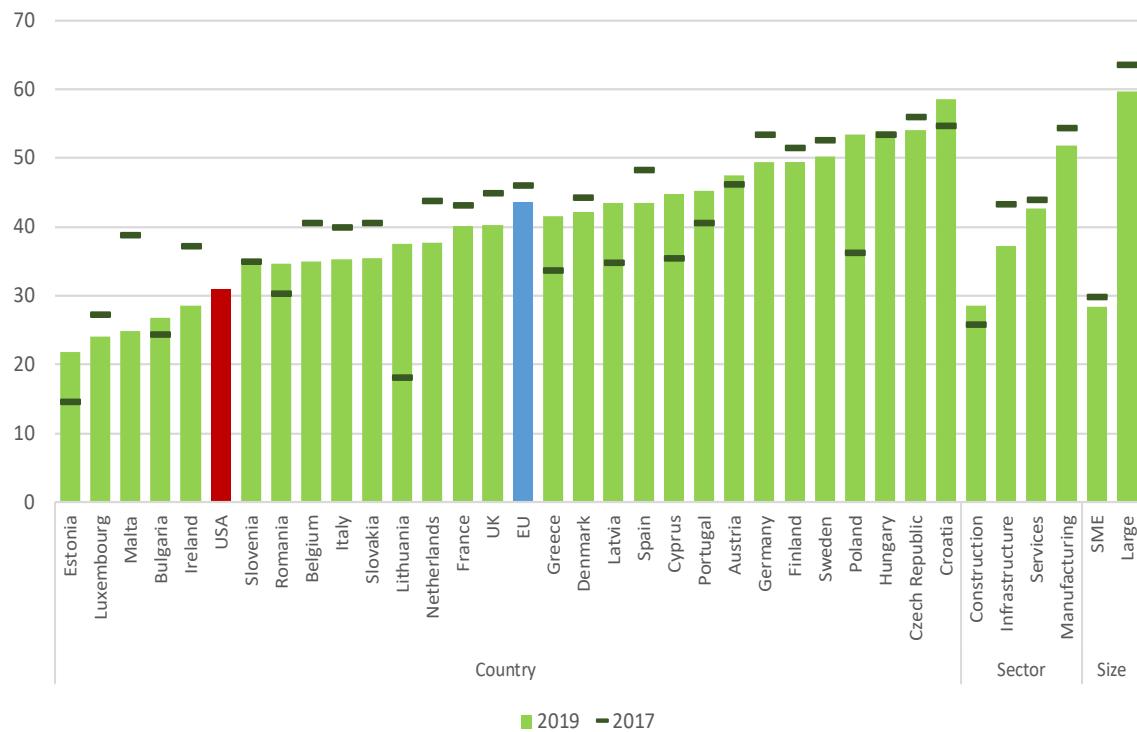
Base: All firms (data not shown for those who said no/don't know/refused)

Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.

Over 2017-2019, two-fifths of European firms had an energy audit, compared to a third in the United States (Figure 5). Energy audits help firms to assess their energy consumption, understand their potential for energy savings and adopt measures (investments or behavioural changes) to improve energy performance. Their objective is to provide tailor-made recommendations and help to overcome the information gap, one of the main barriers to energy efficiency investments. This information is crucial mainly for investments in support processes, such as building insulation, lighting, ventilation and compressed air production.

Going green: Who is investing in energy efficiency, and why it matters

Figure 5: Share of energy audits (%) in the past three years



Source: EIBIS

Base: All firms (data not shown for those who said no/don't know/refused)

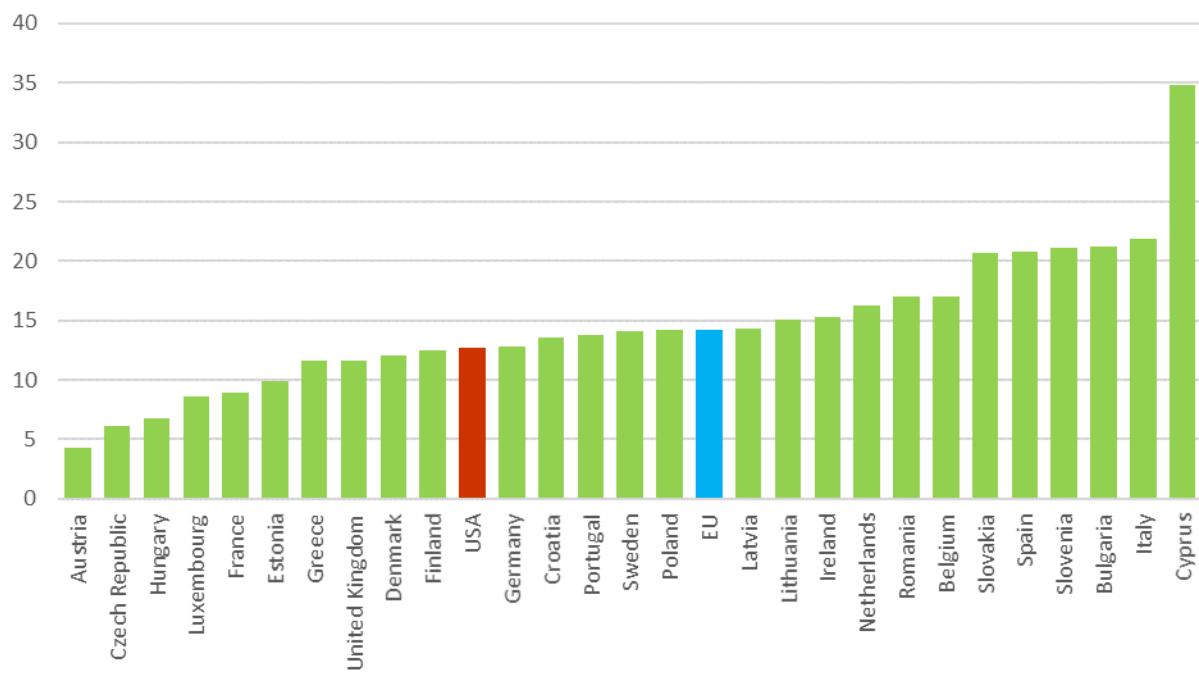
Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.

Energy audits tends to be more frequent in larger firms and energy-intensive sectors across the EU members. In 2019, almost two-thirds (60%) of large firms conducted an energy audit. This share dropped from two-fifths (40%) in medium-sized firms to 22% in small firms. Firms in the manufacturing sector were keener to conduct an energy audit. Across the EU members, the implementation rate varied, with most of the countries displaying participation rates above 40%, except Estonia, Bulgaria and Luxembourg, which present rates between 20-30%. On average, firms' participation rate in energy audits was higher in Central Europe than in the south and in the Baltics.

Advanced management practices also appear to be positively associated with energy efficiency investments. Firms that have more advanced managerial practices (strategic business monitoring system in place and/or a performance-based pay practice) have a higher probability of investing in energy efficiency versus firms with more basic managerial practices (Figure 6). This observation recurs in all EU countries, the EU as a whole and the United States.

Going green: Who is investing in energy efficiency, and why it matters

Figure 6: Differences in the probability that firms with advanced managerial practices invest in energy efficiency (%)



Source: EIBIS

Note: Firms with advanced management practices are those that use performance pay and/or a strategic monitoring system.

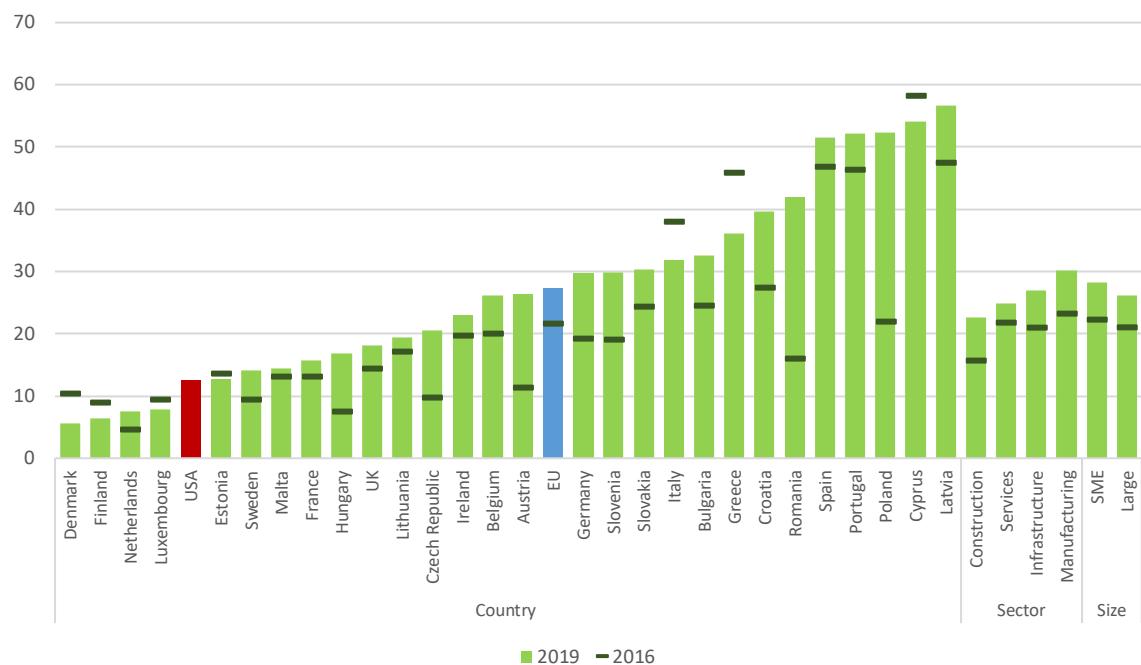
Energy cost concerns are becoming an important determinant of EU firms' investment decisions

In 2019, almost a third of European firms report energy costs as a major obstacle to investment compared to roughly a tenth in the United States. While this figure may not sound so high compared to other cited obstacles (Figure 9), such as availability of skilled staff, access to finance and critical infrastructure, it does reflect a significant change in firms' perspectives, given that it grew steadily from roughly a fifth in 2016. In the United States, energy cost concerns seem to be less of an obstacle for investment activities, probably because shale gas causes downward pressure on domestic energy prices (Figure 7).

The role of energy cost in firms' investment decisions differs considerably across EU members and sectors. In 2019, the share of firms that reported energy cost as a major obstacle to investment ranged from 6% in Denmark to 56% in Latvia. Geographically, this share is higher in southern countries (Italy, Greece, Spain, Portugal, Cyprus) compared to Scandinavian countries (Denmark, Finland, Sweden) and is positively correlated with the presence of higher electricity prices (Figure 8). Firms located in the south of Europe have experienced higher energy costs, despite the falling oil prices, due to higher taxes and levies aimed at supporting the deployment of renewables. Differences are also present across sectors, with firms in energy-intensive sectors, such as manufacturing, being more concerned about energy costs compared to less energy-intensive ones, such as services (Figure 7).

Going green: Who is investing in energy efficiency, and why it matters

Figure 7: Energy costs as major obstacle to investment (%)

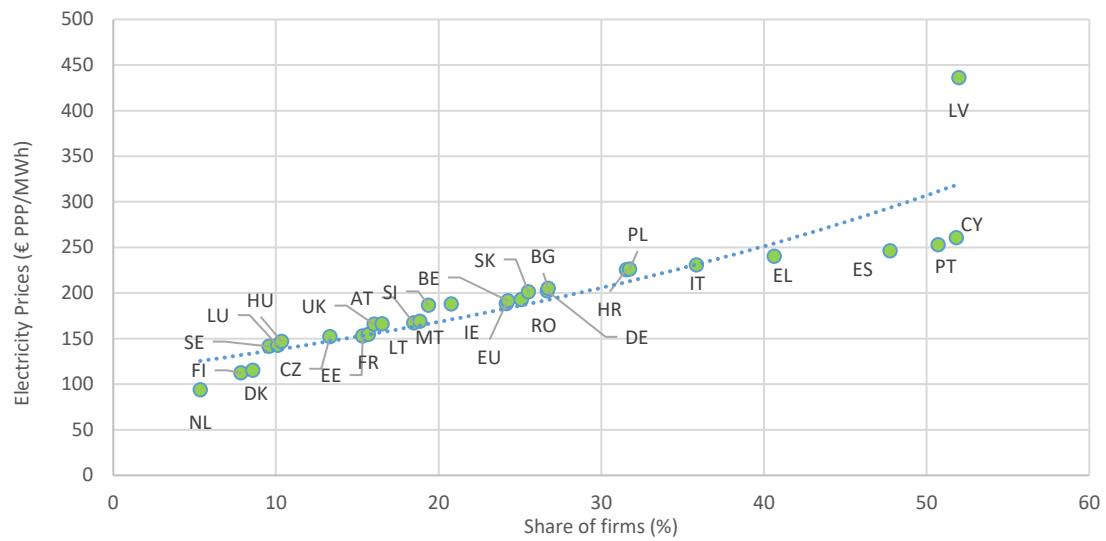


Source: EIBIS

Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

Q: Thinking about your investment activities, to what extent are energy costs an obstacle? Are they a major obstacle, a minor obstacle or not an obstacle at all?

Figure 8: Energy costs as an obstacle to investment and electricity prices



Source: EIBIS and Eurostat

Note: Average share of firms that cited energy cost as a major barrier to investment and electricity prices over 2016-19.

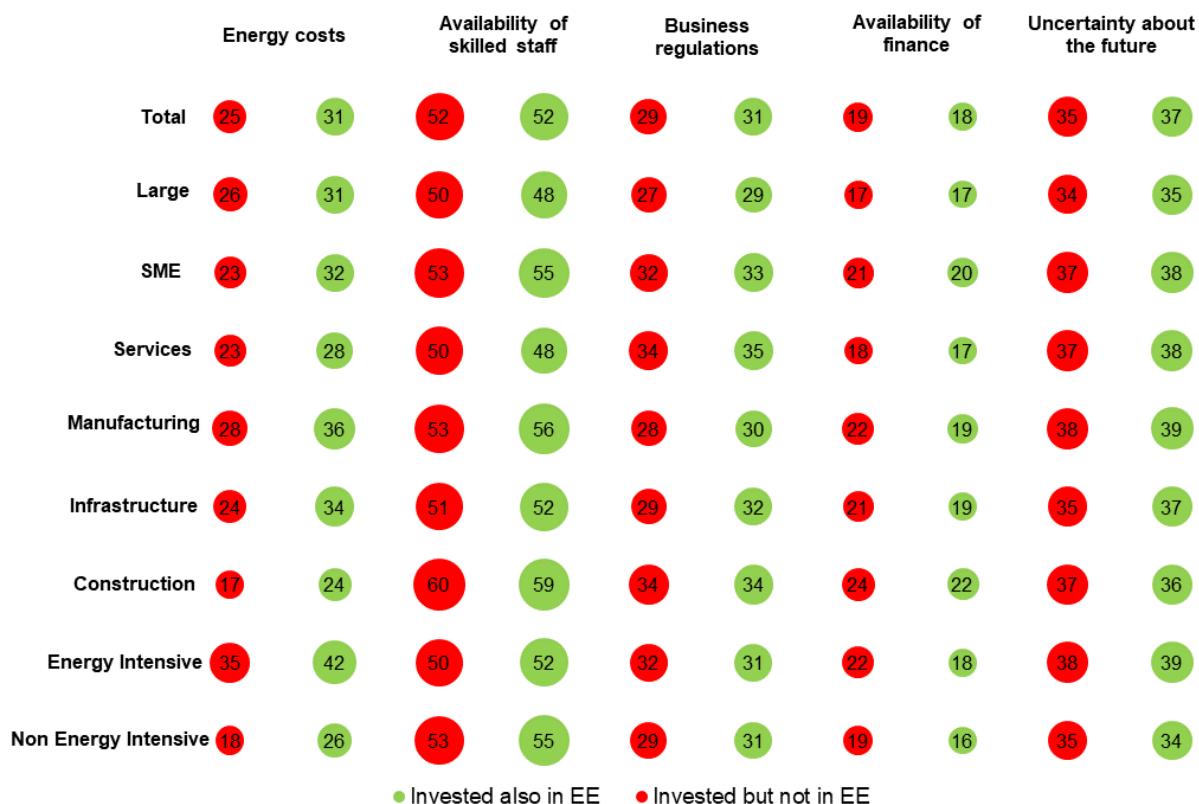
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

Q: Thinking about your investment activities, to what extent are energy costs an obstacle? Are they a major obstacle, a minor obstacle or not an obstacle at all?

Going green: Who is investing in energy efficiency, and why it matters

At the same time, higher energy cost concerns act as an economic incentive for investments into energy efficiency. Regardless of firm size and sector, investments in energy-saving technologies are higher where energy is considered an important cost factor (Figure 9). These firms tend to be more aware of the potential cost savings from investments in energy efficiency and are more inclined to invest in cost-saving technologies. On the contrary, there seems to be no significant difference between investment decisions in energy efficiency and other investment areas of other long-term barriers, such as access to finance, availability of skilled staff, business regulation and uncertainty about the future.

Figure 9: Long-term barriers to investment



Source: EIBIS

Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

Q: Thinking about your investment activities, to what extent are energy costs an obstacle? Are they a major obstacle, a minor obstacle or not an obstacle at all?

Conclusions: The European Union’s “energy efficiency first” principle and ambitious greenhouse gas emission reduction targets leave no room for complacency

EIBIS shows that energy costs are emerging as a significant concern for investment activities of European firms, especially for those located in South Europe. This is less of an issue for US firms, thanks to domestic shale gas that exerts downward pressure on energy prices. To offset the effect of higher taxes and levies, and retain their competitiveness, EU firms must become more energy-efficient, meaning that they must use less energy per unit of production. Nevertheless, EIBIS data show that only half of EU firms invest in energy efficiency measures and that this accounts for only a small share of their total investment budget. Given that they believe that only a third of their building stock satisfies the highest energy efficiency standards, on average, there is clearly great potential for further energy efficiency savings.

The good news for Europe is that between 2018 and 2019 average spending on energy efficiency measures, as a share of total investment of EU firms, slightly increased. In 2019, firms in South and North-West Europe, and those in energy-intensive sectors across Europe, appear to have invested more, displaying significant variation from the previous year, as such investments are non-recurring. Most of these investments were probably driven by the age of the building stock, the importance of energy costs in the production of goods and services and the availability of information on technology options and their related energy cost savings. Energy audits play a crucial role in this, as they highlight opportunity from energy efficiency and from advanced management practices such as strategic business monitoring systems and pay-for-performance practices. However, EIBIS reveals that less than a third of SMEs have conducted an energy audit in the past three years, particularly in the Baltics – the region where firms have the most negative perceptions about their building stock’s quality.

However, the unprecedented impacts of the COVID-19 pandemic threaten positive developments for energy efficiency investments in the European Union. The COVID-19 pandemic and climate investments are closely interlinked: as the pandemic seriously affects economies and dampens global energy commodity and carbon prices, it weakens the incentives to invest, among others, in cost-saving technologies. The European Union is struggling to mitigate the extent of the planned recession and the rising unemployment rates. Governments are responding with monetary and fiscal measures. At a time when a large portion of the economy is looking to the public sector for support, this is an excellent opportunity to ensure that the relief for current, acute strains on the economy comes with guarantees about building a secure and sustainable energy future.

There is no room for complacency if Europe is serious about moving towards a carbon-neutral economy, given that delayed actions will result in higher costs and emissions and overall lower or negative economic growth. To incentivise firms to play their part in energy conservation and equip them to adapt to a changing economy, efforts to provide clear energy policy signals should continue, along with a supportive regulatory framework and improved access to climate finance and information. Clear policies and exchange of best practices would

Going green: Who is investing in energy efficiency, and why it matters

enable firms to roll out strategies and investment plans in line with the commitment of the Paris Agreement. Regulations that push for higher energy building performance standards and phase out environmentally harmful subsidies to fossil fuels could indirectly influence investments and individual behaviour, as well as steer production and consumption towards a sustainable path. Last but not least, improved access to finance and favourable financing conditions for climate investments would help firms to achieve a just energy transformation, without affecting their competitiveness.

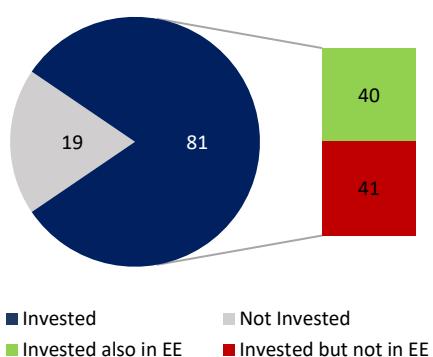
AUSTRIA – ENERGY EFFICIENCY

Summary

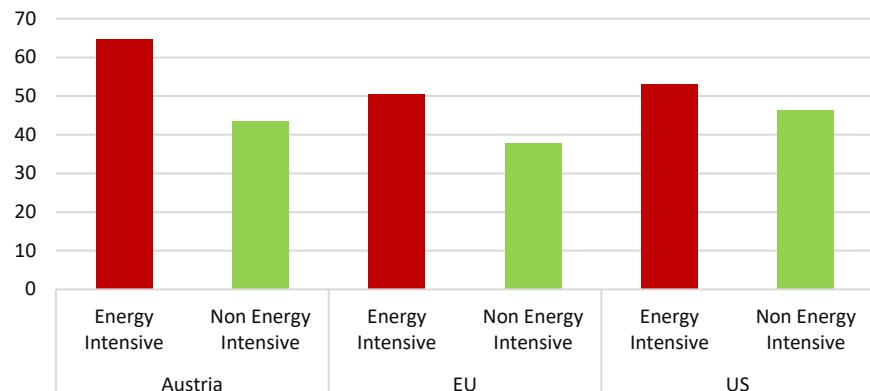
- Half of firms that invest in Austria, also **invest in EE** (40% of all firms). This share jumps to 65% for the energy intensive sectors.
- Firms in Austria allocate **14% of their total investment in EE improvements**, more than the EU and the US average. This proportion is higher in energy intensive sectors.
- Firms in Austria report **half** of their **building stock to be of high or highest energy efficiency (EE) standards**, a share significantly above that of EU and US counterparts (two fifths and a third, respectively).
- Almost two thirds** of the firms surveyed in Austria with an **energy audit invest in EE improvements**.
- Almost half** of the firms surveyed in Austria had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Austria are **more likely** to **invest in EE improvements** when they implement **advanced management practices**.
- Firms that are **more affected by energy costs** are **more likely to invest in EE improvements**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



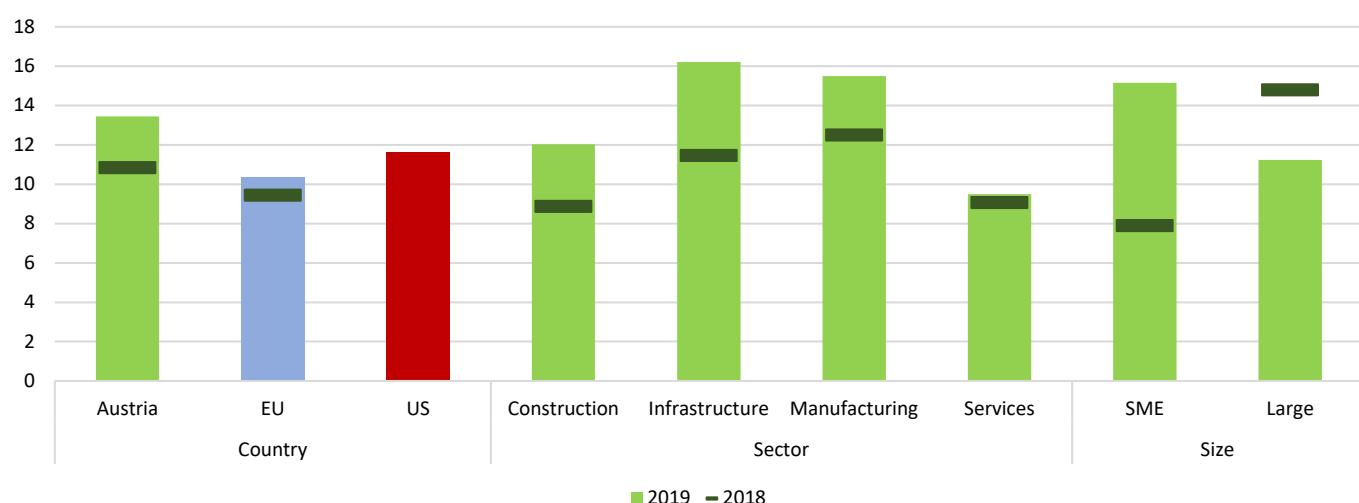
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

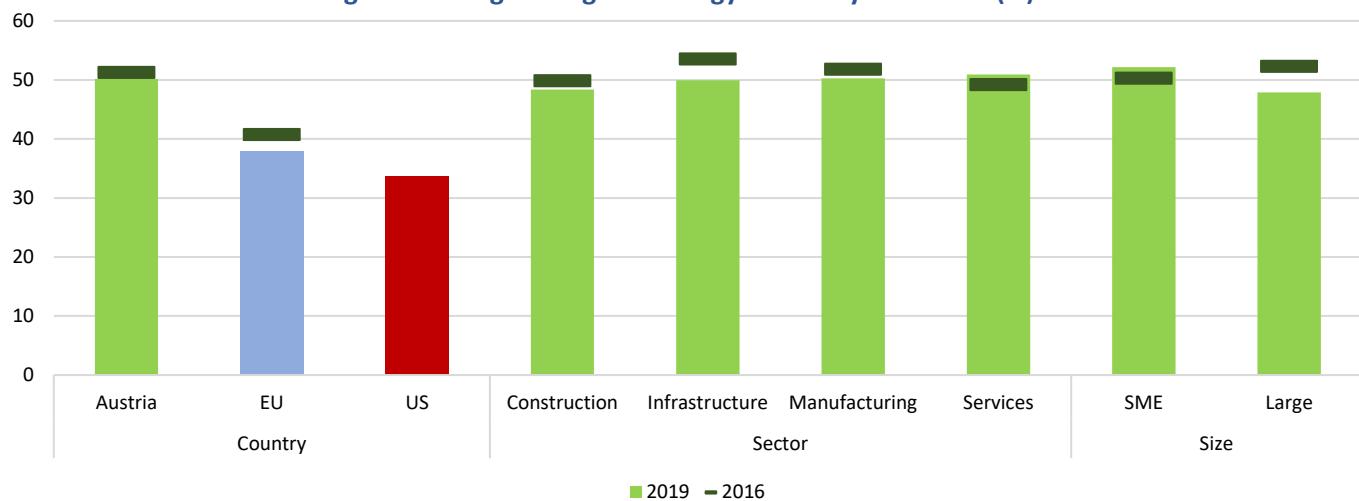
C. Proportion of firms' total investment for measures to improve EE (%)



Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?
Base: All firms which have invested (data not shown for those who said don't know/refused)

AUSTRIA – ENERGY EFFICIENCY

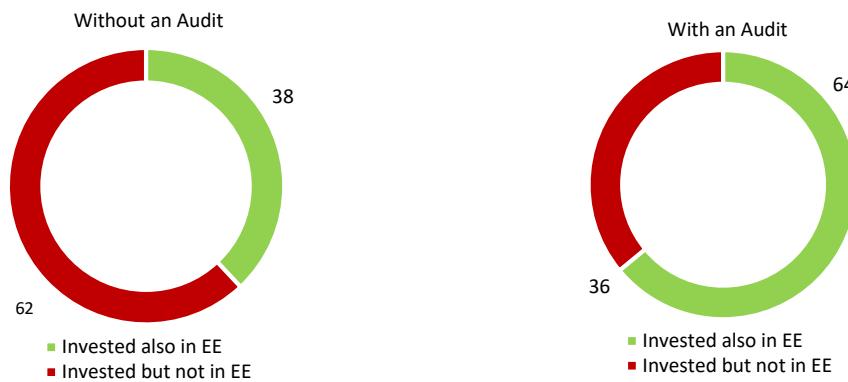
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

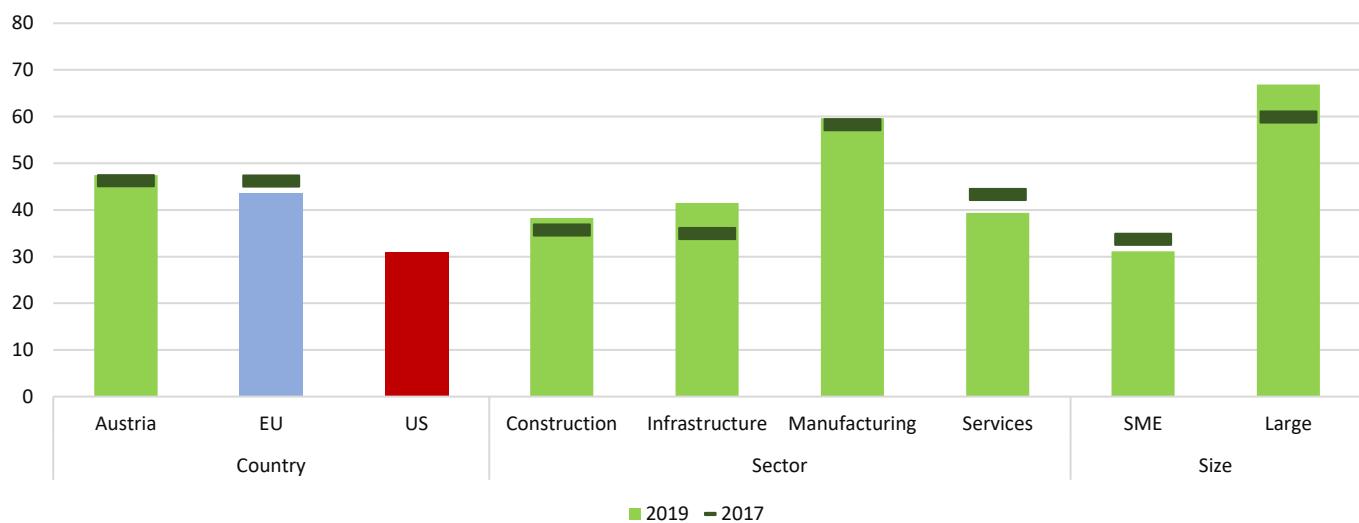
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

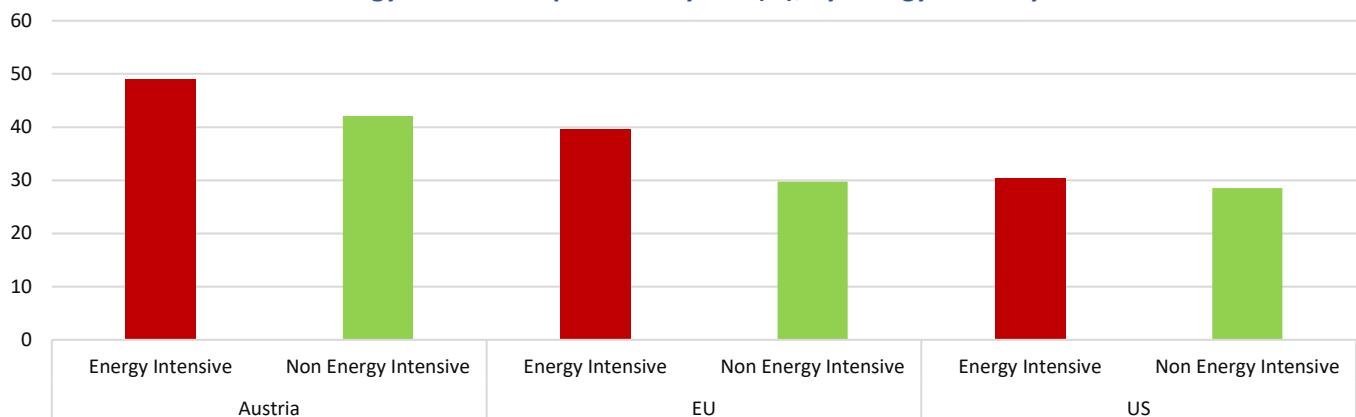
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

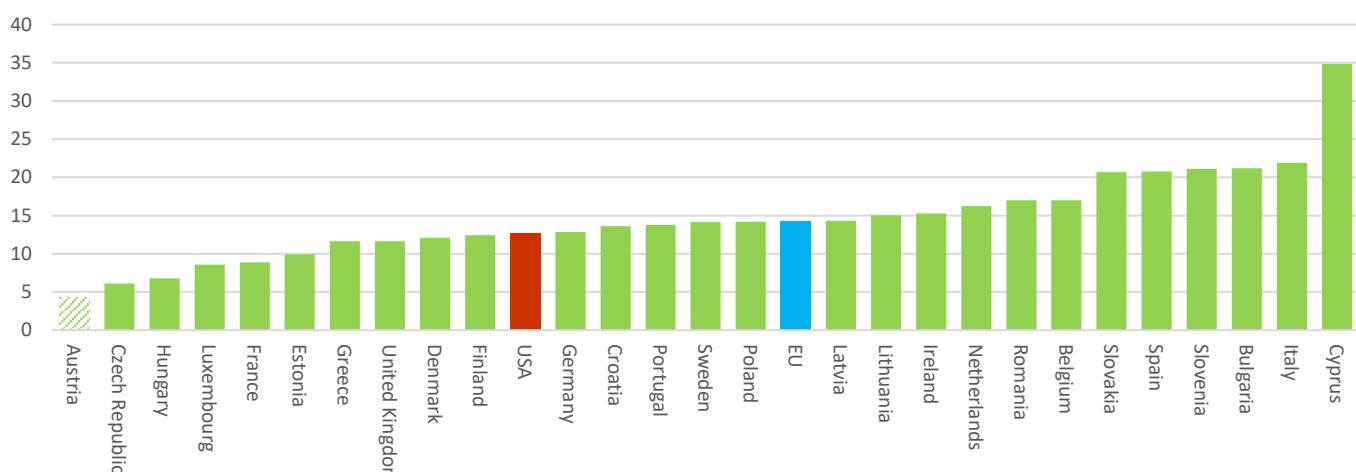
AUSTRIA – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)*

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

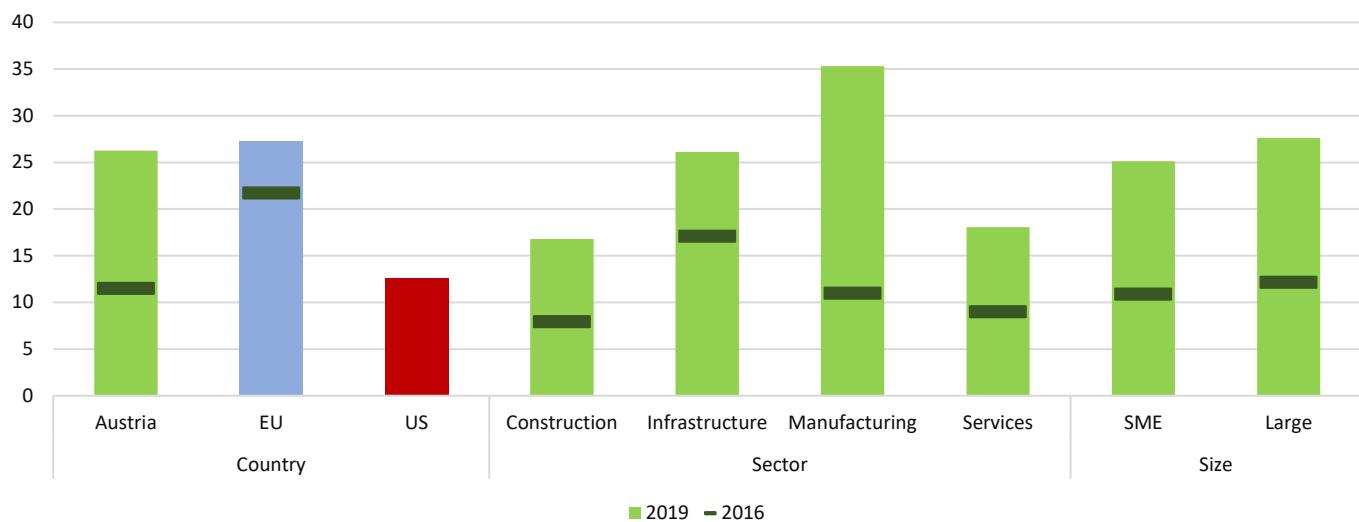
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 11 | 35 | 68 | 75 | 28 |
| Large | 12 | 33 | 65 | 77 | 35 |
| SME | 11 | 38 | 71 | 73 | 21 |
| Services | 10 | 28 | 69 | 66 | 20 |
| Manufacturing | 19 | 45 | 61 | 76 | 32 |
| Infrastructure | 9 | 39 | 72 | 75 | 26 |
| Construction | 8 | 29 | 76 | 78 | 16 |
| Energy Intensive | 17 | 49 | 53 | 78 | 23 |
| Non Energy Intensive | 9 | 32 | 72 | 81 | 31 |

● Invested also in EE ● Invested but not in EE

*Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)*

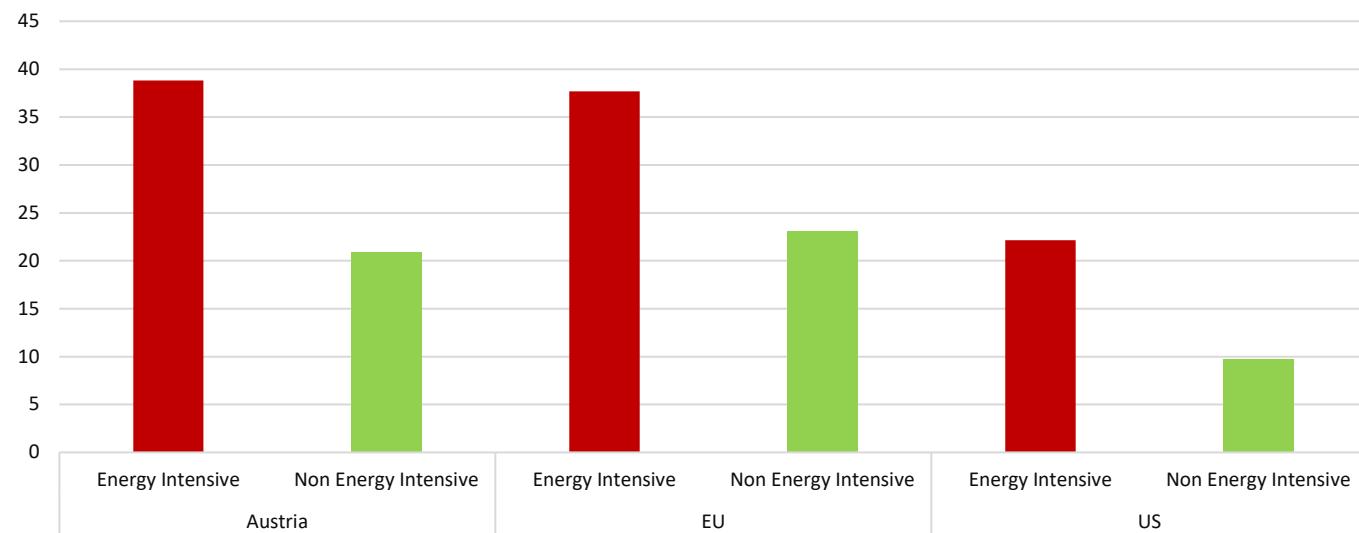
AUSTRIA – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



Q: Thinking about your investment activities, to what extent are energy costs an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

D1. Energy costs as major obstacle to investment (%), by energy intensity



Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

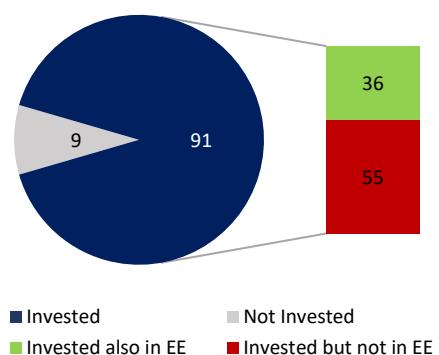
BELGIUM – ENERGY EFFICIENCY

Summary

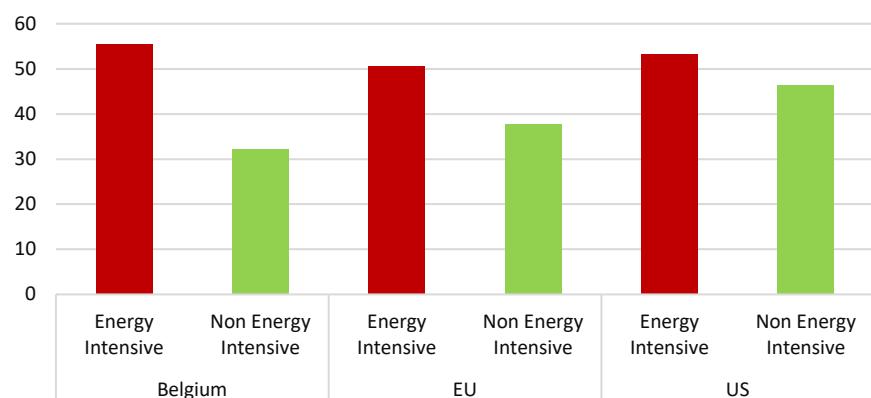
- *Two fifths* of firms that invest in Belgium, also **invest in EE** (36% of all firms). This share jumps to 55% for the energy intensive sectors.
- Firms in Belgium allocate *approximately 7%* of their **total investment in EE improvements**, less than the EU and the US average. This proportion is higher in energy intensive sectors, such as manufacturing and infrastructure.
- Firms in Belgium report *roughly 35%* of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and a third in the US.
- *Almost two thirds* of the firms surveyed in Belgium with an **energy audit invest in EE improvements**.
- *Almost 35%* of the firms surveyed in Belgium had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Belgium are *more likely* to **invest in EE improvements** when they implement **advanced management practices**.
- Firms that are *more affected by energy costs* are *more likely to invest in EE improvements*. This is the only barrier to investment that is perceived differently between firms that invested also in EE and those that did not.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



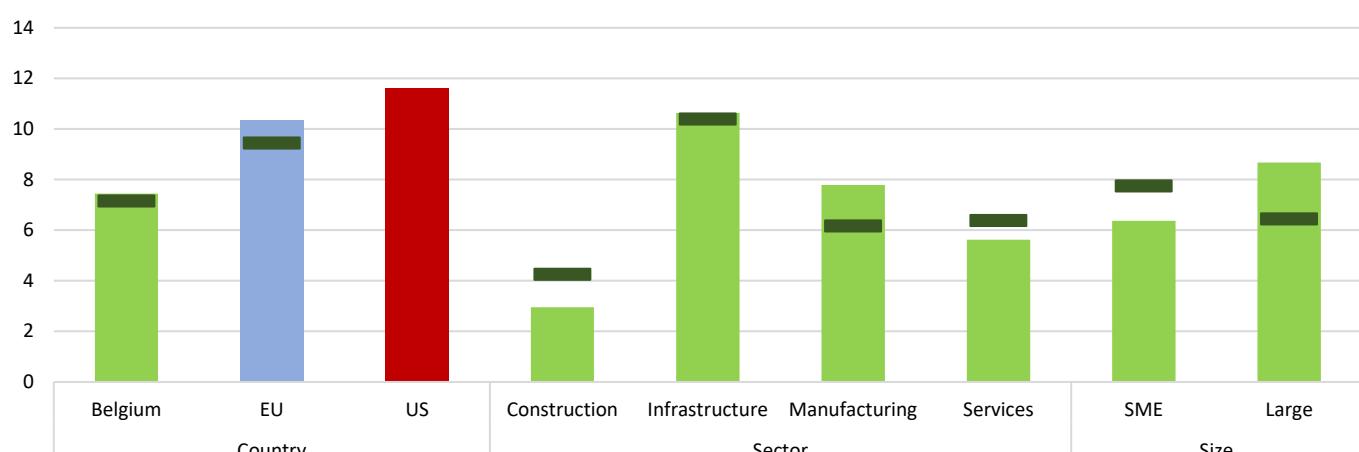
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

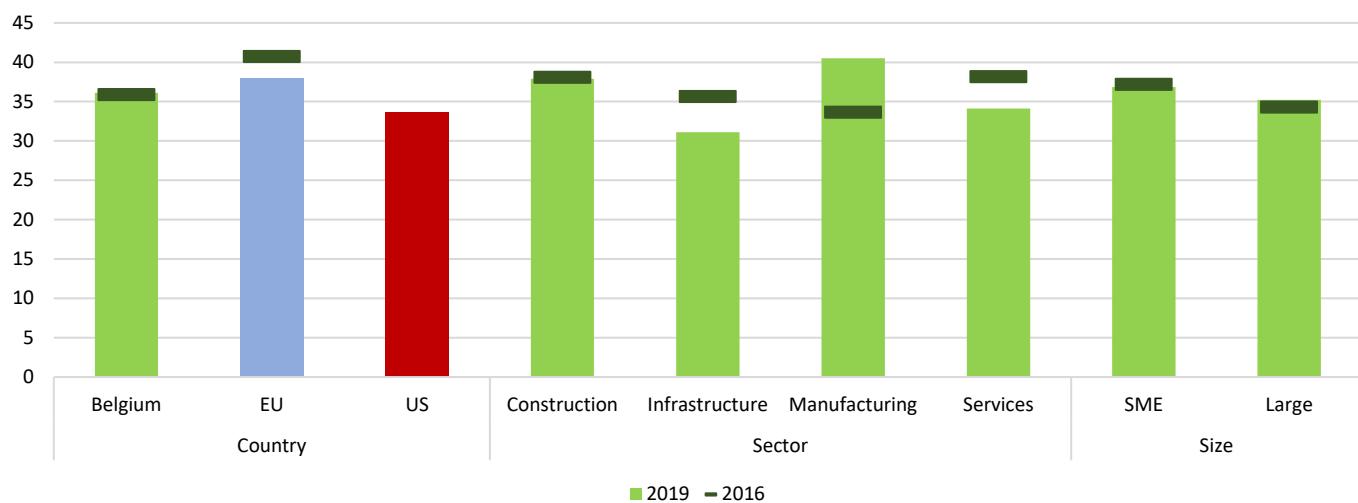


2019 – 2018

Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?
Base: All firms which have invested (data not shown for those who said don't know/refused)

BELGIUM – ENERGY EFFICIENCY

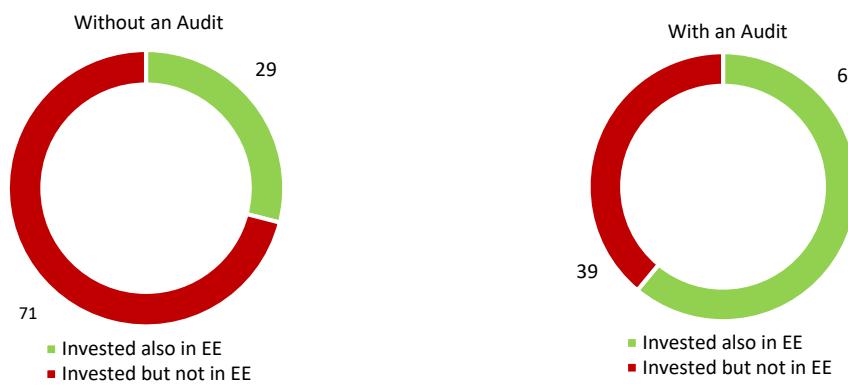
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

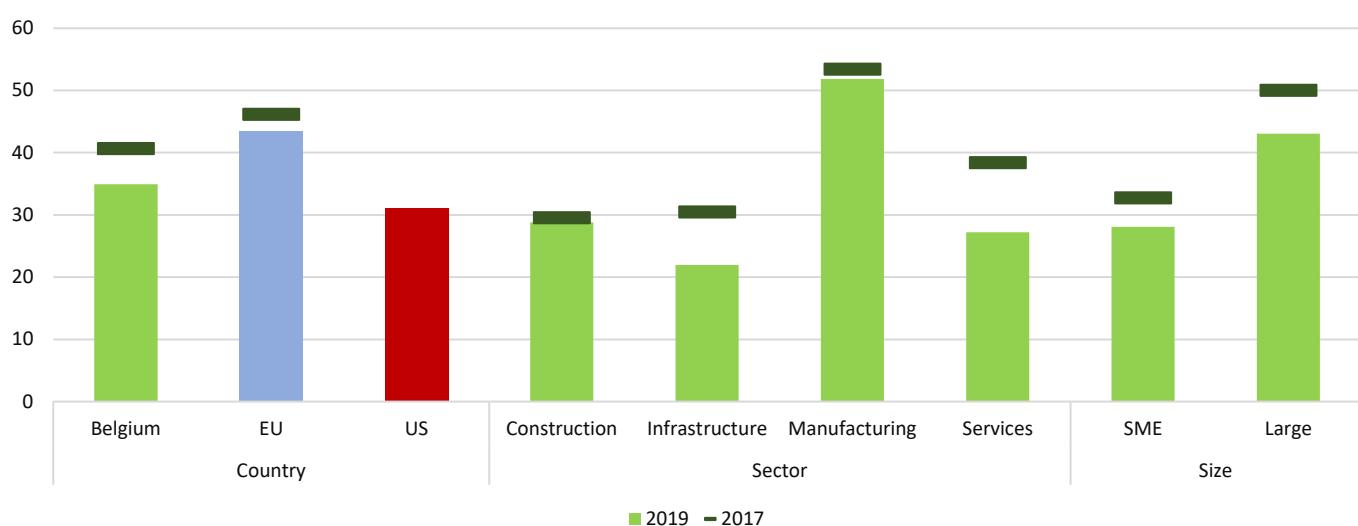
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

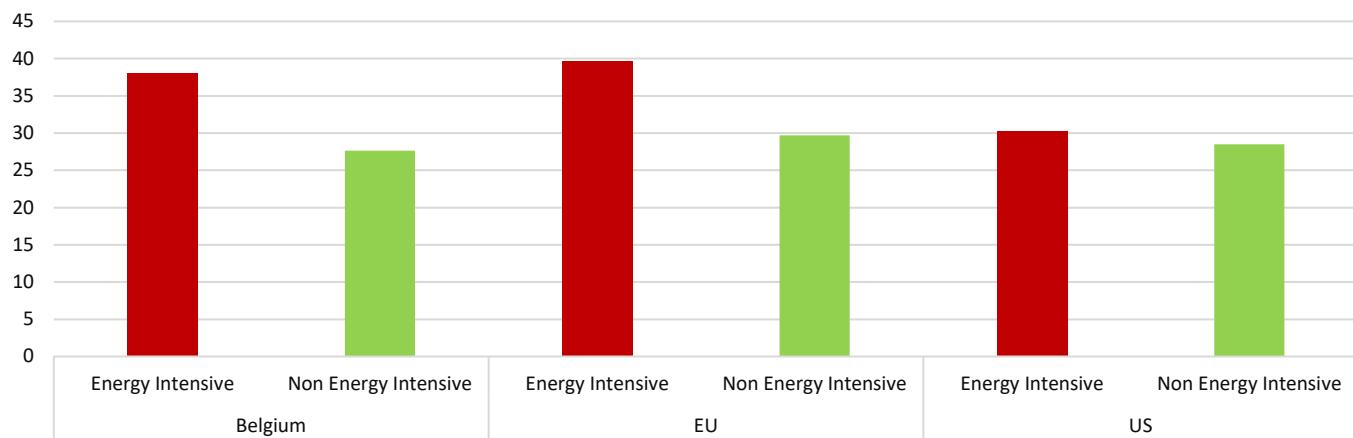
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

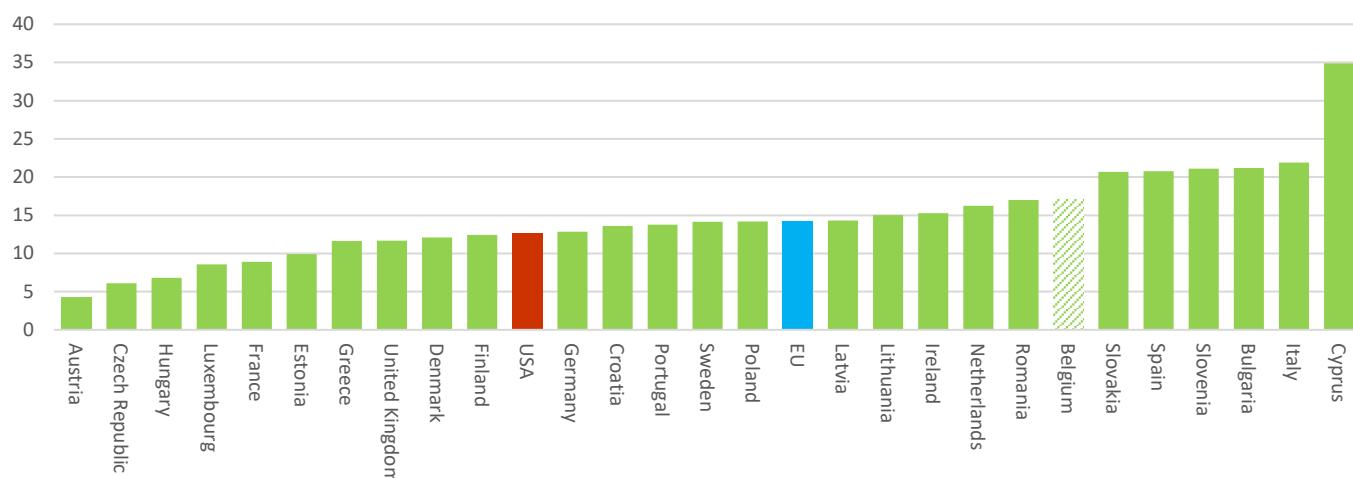
BELGIUM – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)*

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

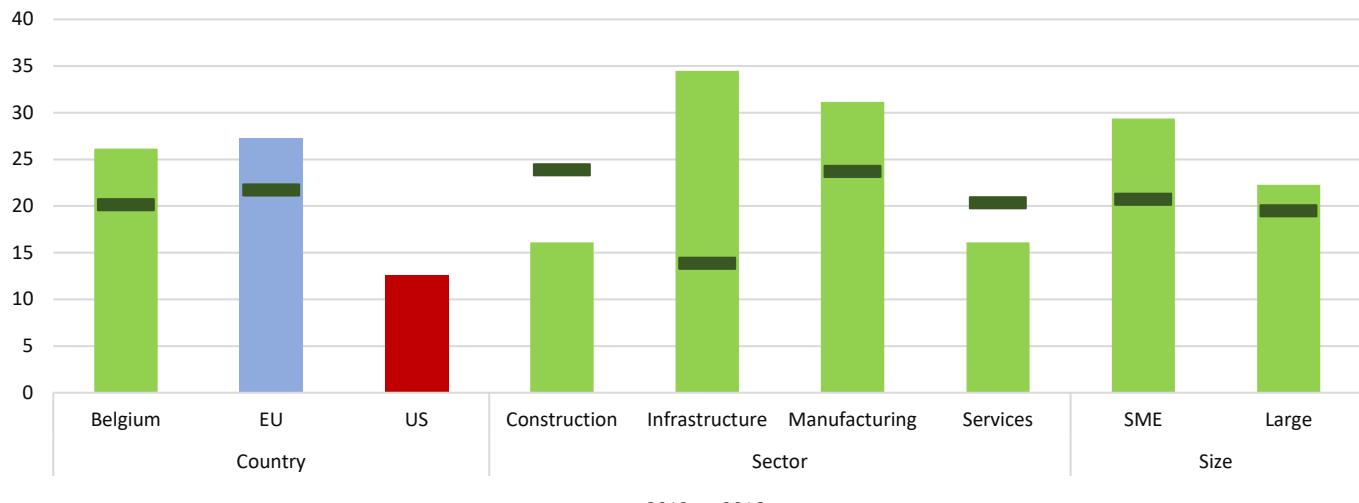
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 19 | 34 | 23 | 15 | 27 |
| Large | 16 | 30 | 16 | 12 | 24 |
| SME | 22 | 39 | 30 | 17 | 31 |
| Services | 19 | 34 | 39 | 17 | 39 |
| Manufacturing | 21 | 43 | 25 | 10 | 27 |
| Infrastructure | 26 | 40 | 23 | 18 | 25 |
| Construction | 19 | 27 | 27 | 22 | 31 |
| Energy Intensive | 33 | 49 | 29 | 14 | 27 |
| Non Energy Intensive | 18 | 28 | 28 | 17 | 27 |

● Invested also in EE ● Invested but not in EE

*Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)*

BELGIUM – ENERGY EFFICIENCY

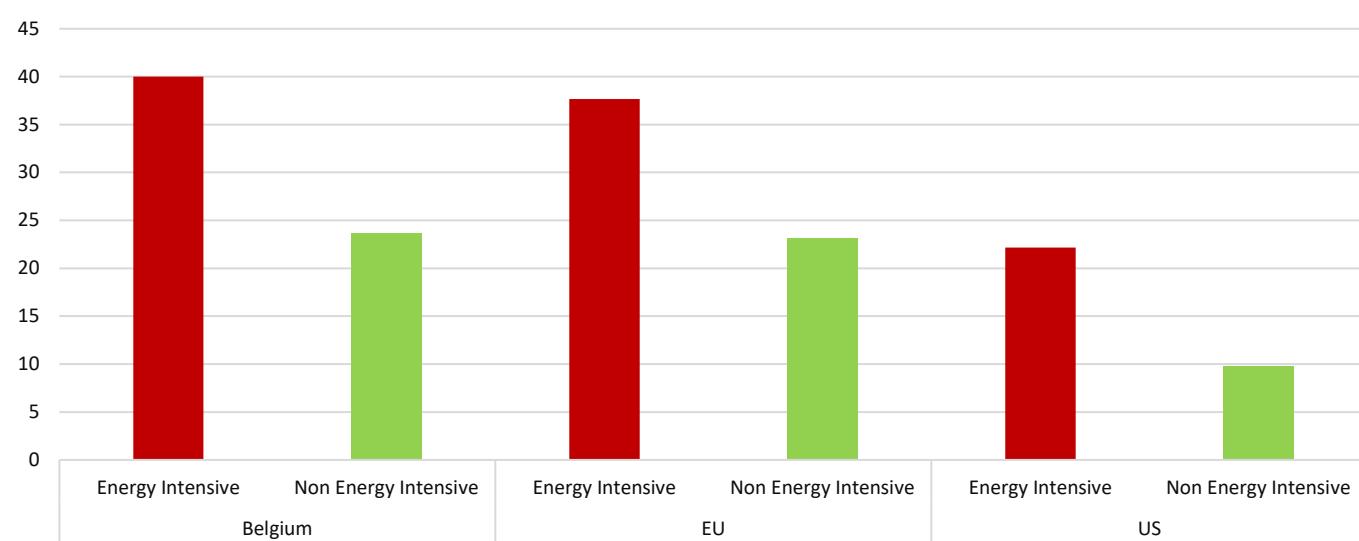
D. Energy costs as major obstacle to investment (%)



Q: Thinking about your investment activities, to what extent are energy costs an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?

Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

D1. Energy costs as major obstacle to investment (%), by energy intensity



Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

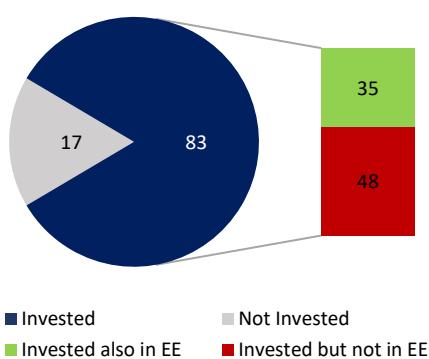
BULGARIA – ENERGY EFFICIENCY

Summary

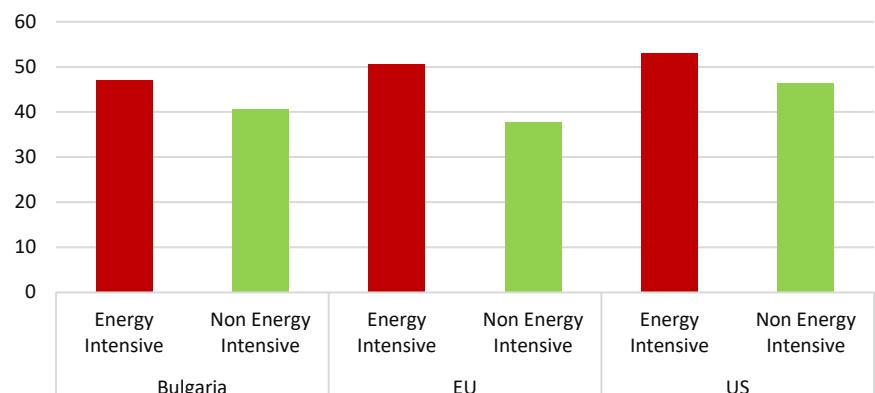
- *Two fifths* of firms that invest in Bulgaria, also **invest in EE** (35% of all firms). This share rises to 48% for the energy intensive sectors.
- Firms in Bulgaria allocate **more than 16% of their total investment in EE improvements**, more than the EU and the US average. This proportion is higher in energy intensive sectors such as manufacturing and infrastructure.
- Firms in Bulgaria report **two fifths** of their **building stock to be of high or highest energy efficiency (EE) standards**, similar to the EU average and higher than that of the US.
- **Two thirds** of the firms surveyed in Bulgaria with an **energy audit invest in EE improvements**.
- **Less than a third** of the firms surveyed in Bulgaria had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Bulgaria are **more likely** to **invest in EE improvements** when they implement **advanced management practices**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



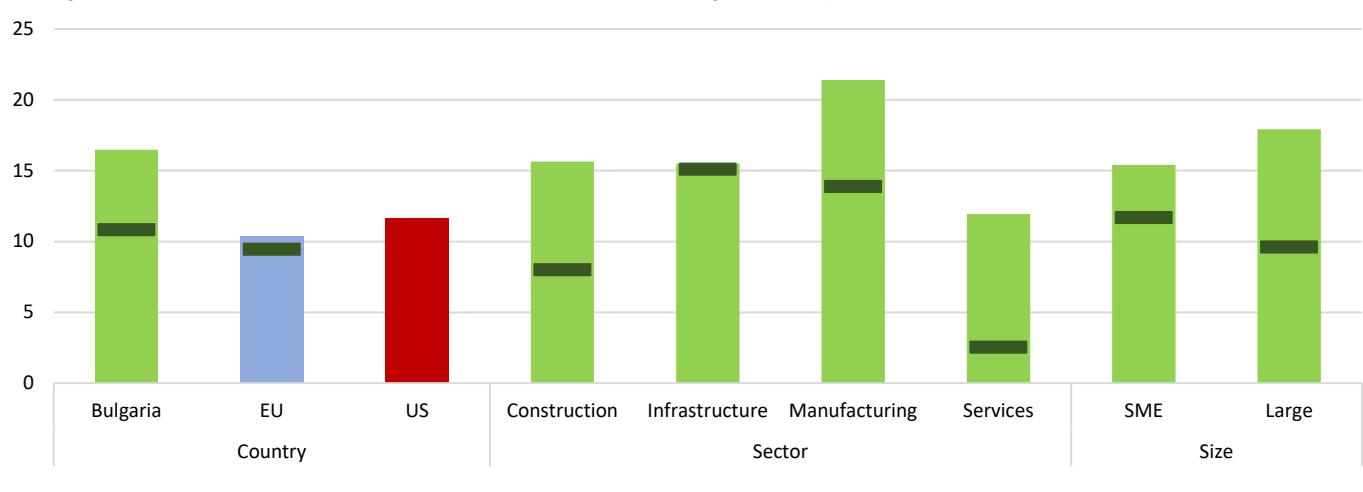
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

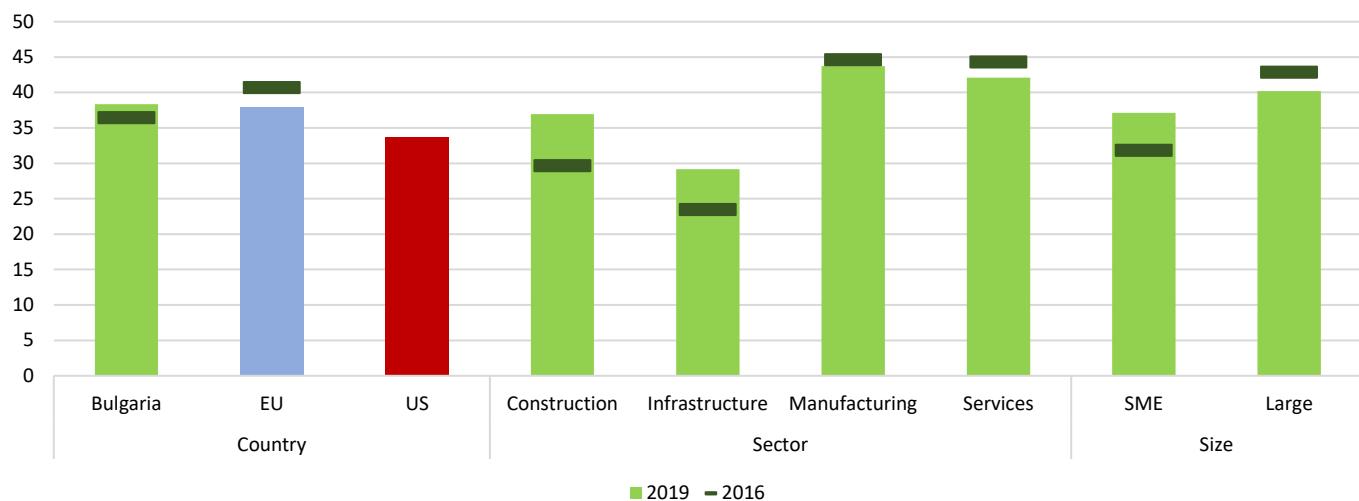


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

BULGARIA – ENERGY EFFICIENCY

D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

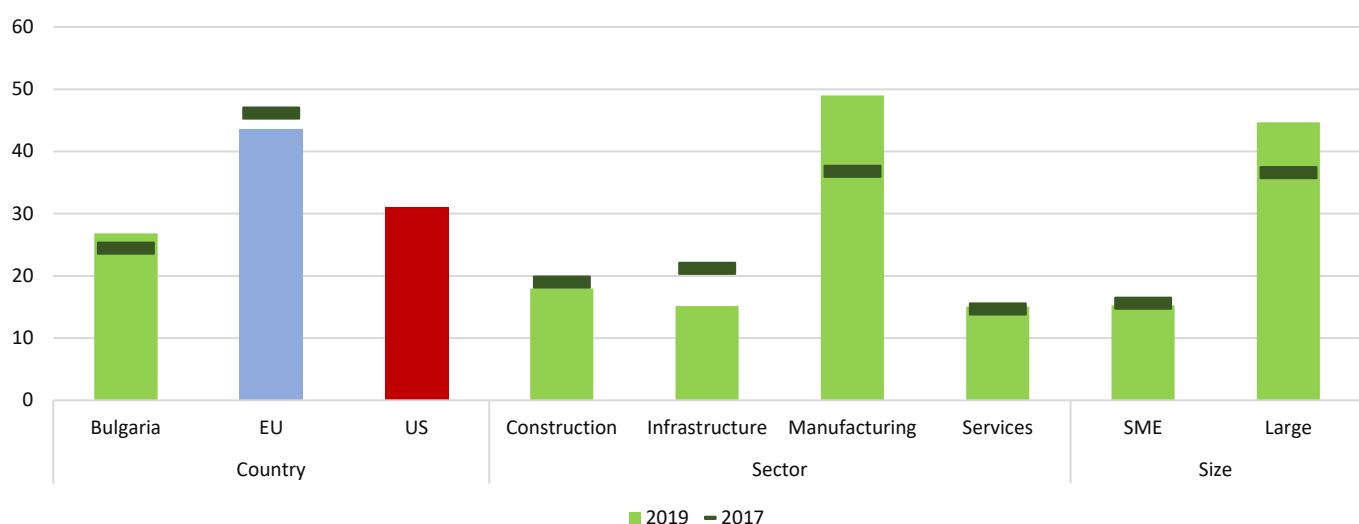
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

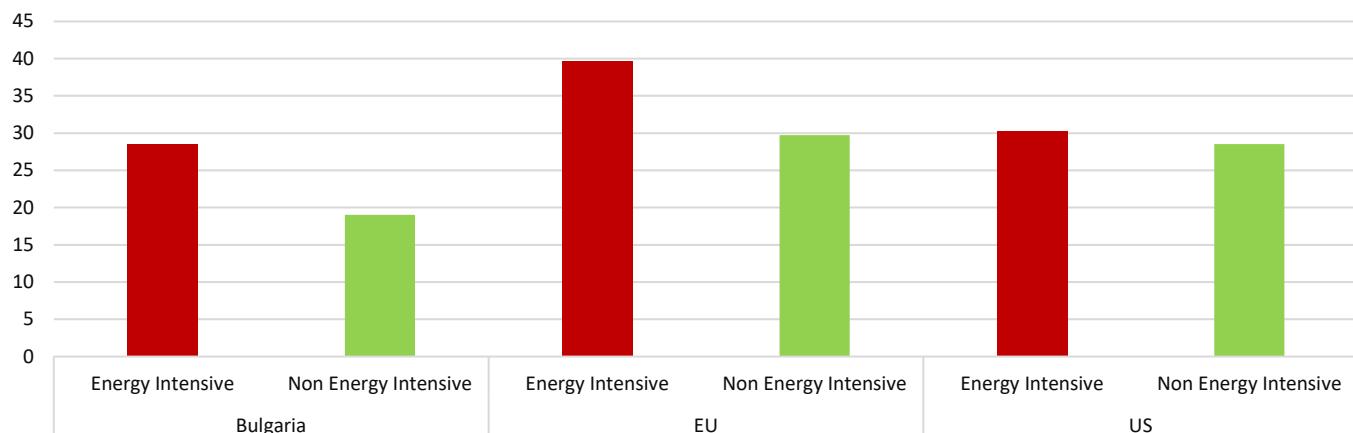
A1. Share of firms with an energy audit in the past three years (%)



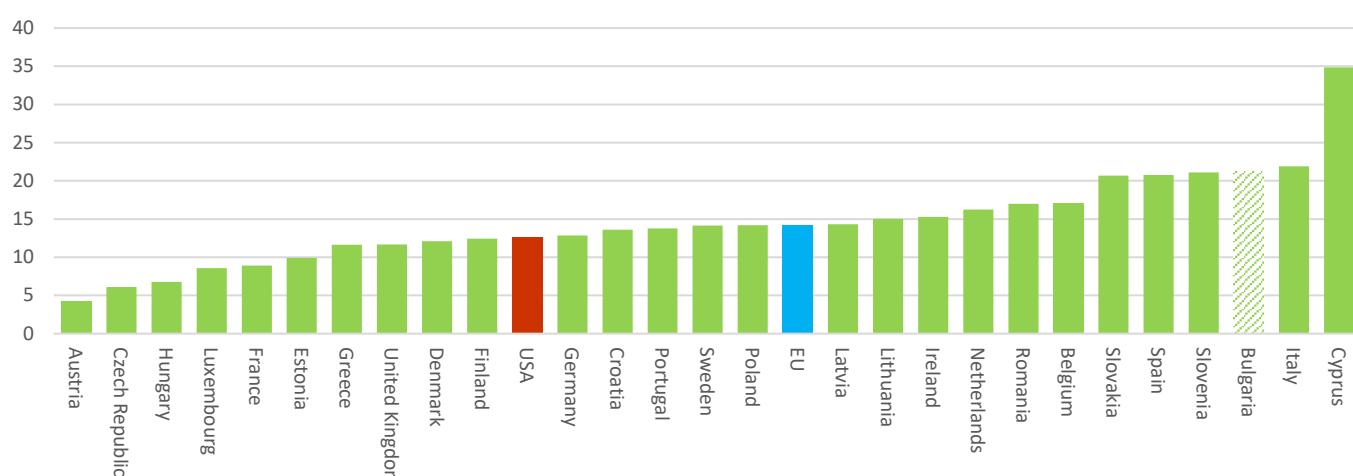
Base: All firms (data not shown for those who said no/don't know/refused)

BULGARIA – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

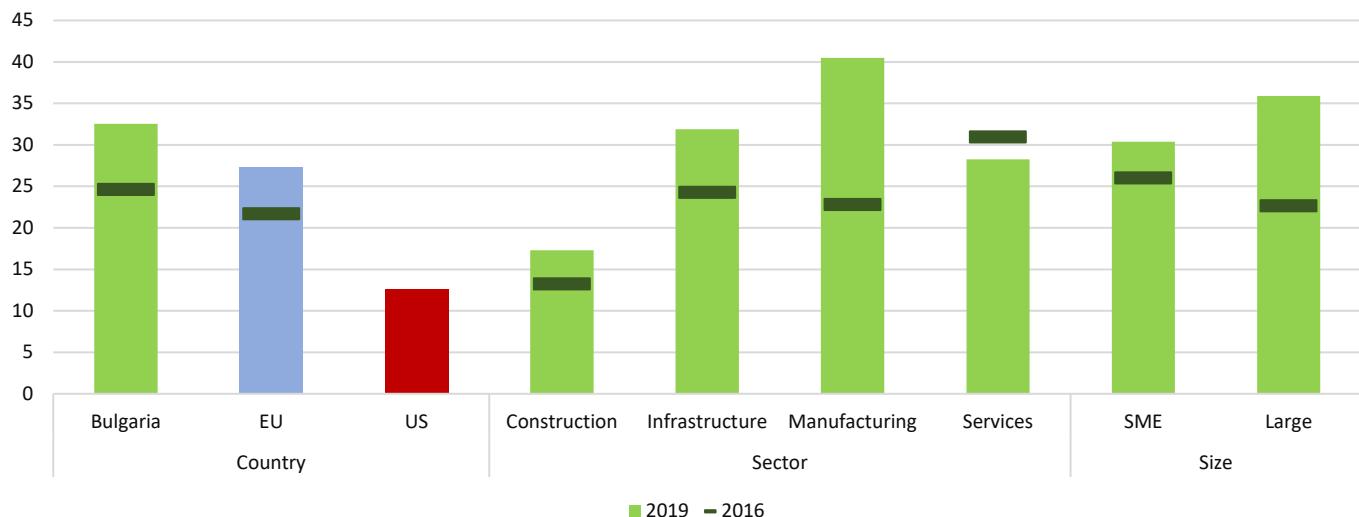
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future | | | | | |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|----|----|----|----|----|
| Total | 33 | 32 | 67 | 64 | 35 | 25 | 18 | 15 | 39 | 40 |
| Large | 39 | 36 | 65 | 60 | 30 | 26 | 17 | 13 | 35 | 34 |
| SME | 28 | 28 | 69 | 67 | 40 | 25 | 18 | 17 | 43 | 45 |
| Services | 36 | 31 | 68 | 59 | 46 | 33 | 6 | 14 | 34 | 41 |
| Manufacturing | 43 | 37 | 70 | 68 | 45 | 24 | 21 | 11 | 55 | 41 |
| Infrastructure | 26 | 36 | 70 | 64 | 30 | 11 | 21 | 26 | 33 | 45 |
| Construction | 15 | 11 | 68 | 69 | 36 | 33 | 24 | 18 | 46 | 44 |
| Energy Intensive | 40 | 43 | 73 | 65 | 38 | 10 | 25 | 17 | 49 | 35 |
| Non Energy Intensive | 25 | 22 | 68 | 70 | 39 | 37 | 15 | 13 | 40 | 40 |

● Invested also in EE ● Invested but not in EE

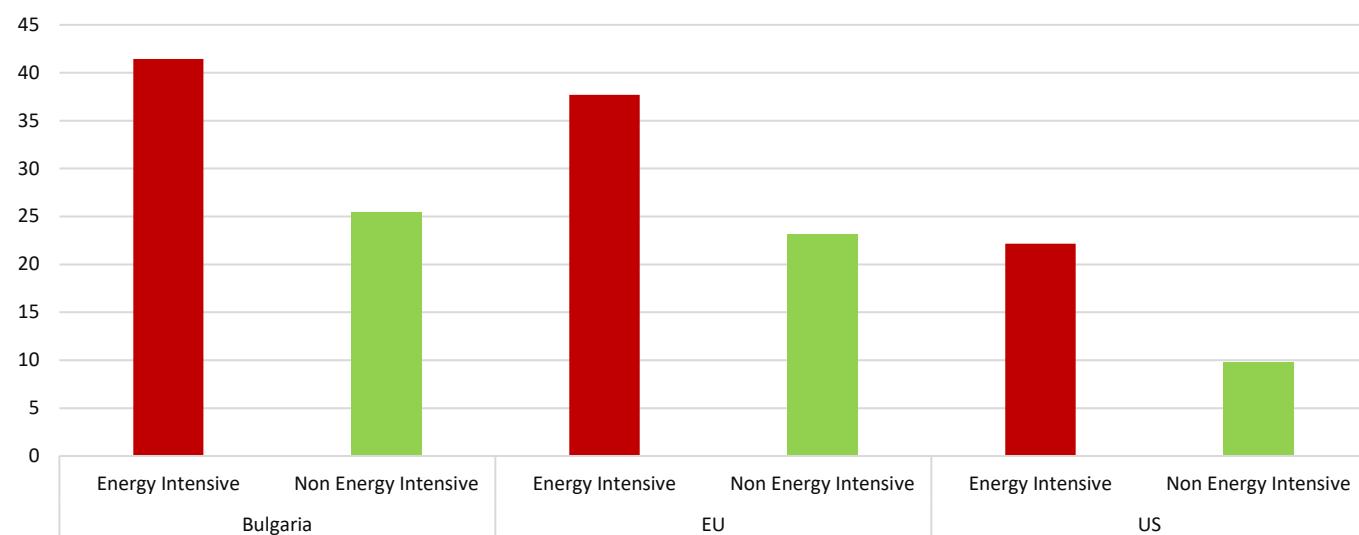
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

BULGARIA – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity

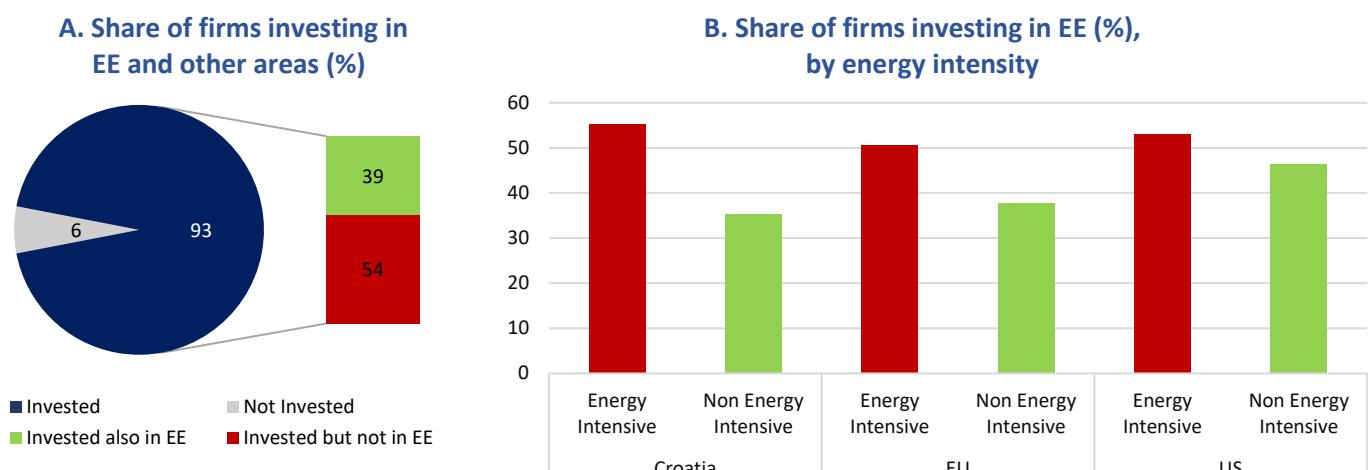


CROATIA – ENERGY EFFICIENCY

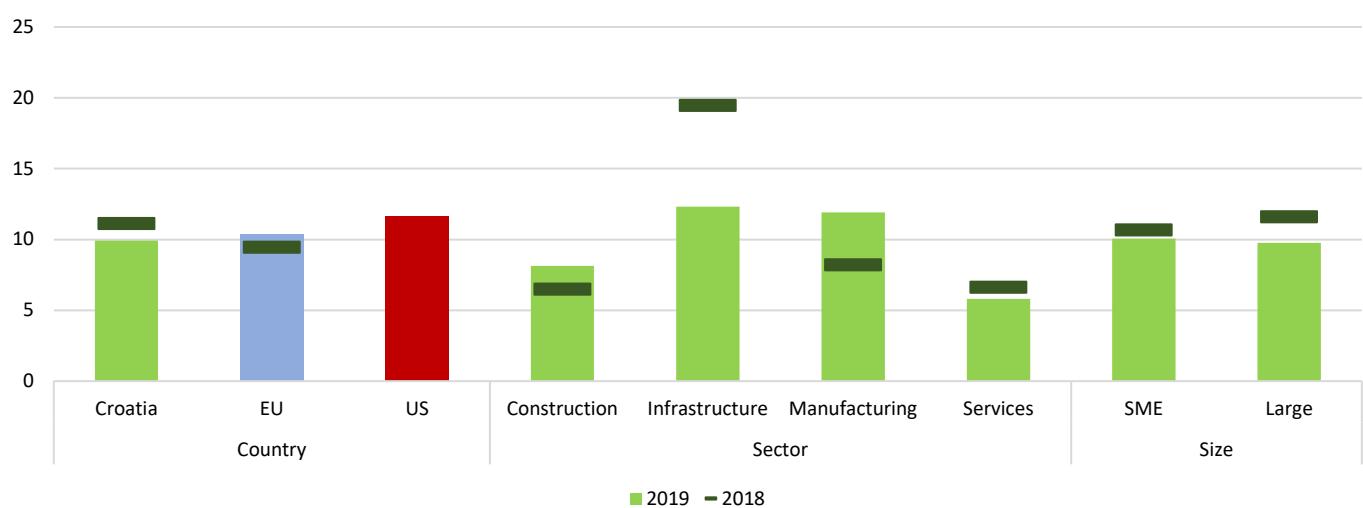
Summary

- *Two fifths* of firms in Croatia invest in EE (39% of all firms). This share jumps to 55% for the energy intensive sectors.
- Firms in Croatia allocate *a tenth* of their total investment in EE improvements, similar to the EU and the US average. This proportion is higher in energy intensive sectors such as manufacturing and infrastructure.
- Firms in Croatia report *two fifths* of their building stock to be of high or highest energy efficiency (EE) standards, similar to the EU average and higher than that of the US.
- *More than half* of the firms surveyed in Croatia with an energy audit invest in EE improvements.
- *Nearly 60%* of the firms surveyed in Croatia had an energy audit in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size.
- Firms in Croatia are more likely to invest in EE improvements when they implement advanced management practices.

Energy efficiency (EE) investment

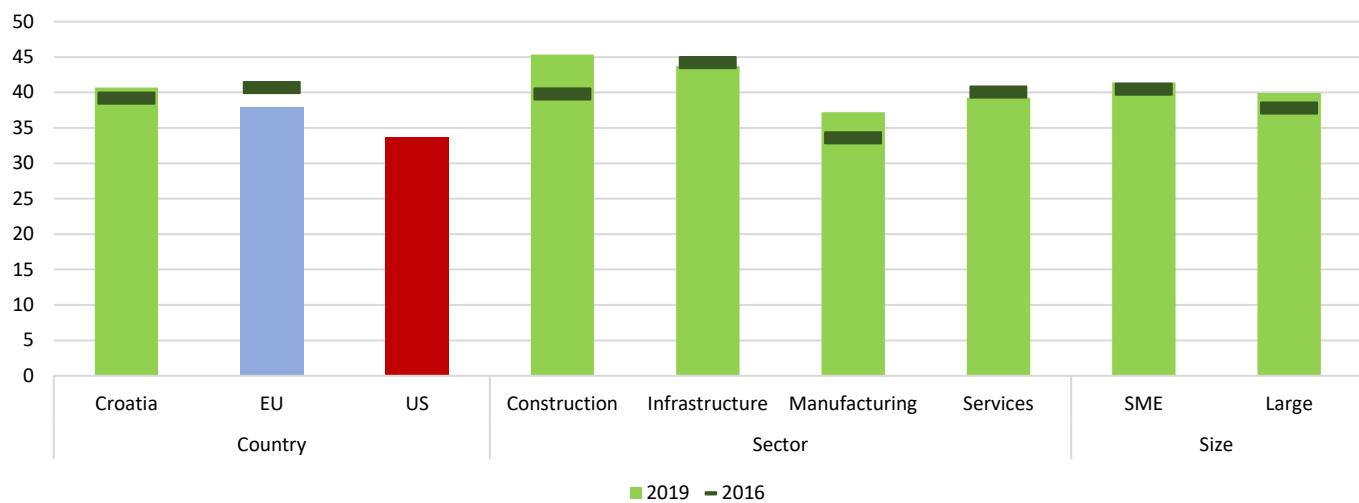


C. Proportion of firms' total investment for measures to improve EE (%)



CROATIA – ENERGY EFFICIENCY

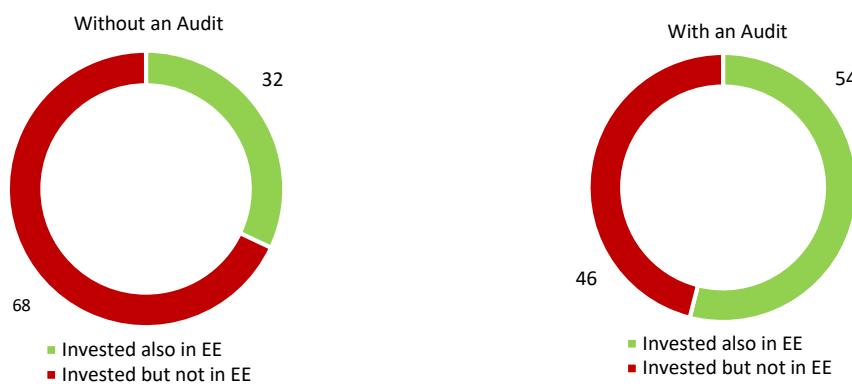
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

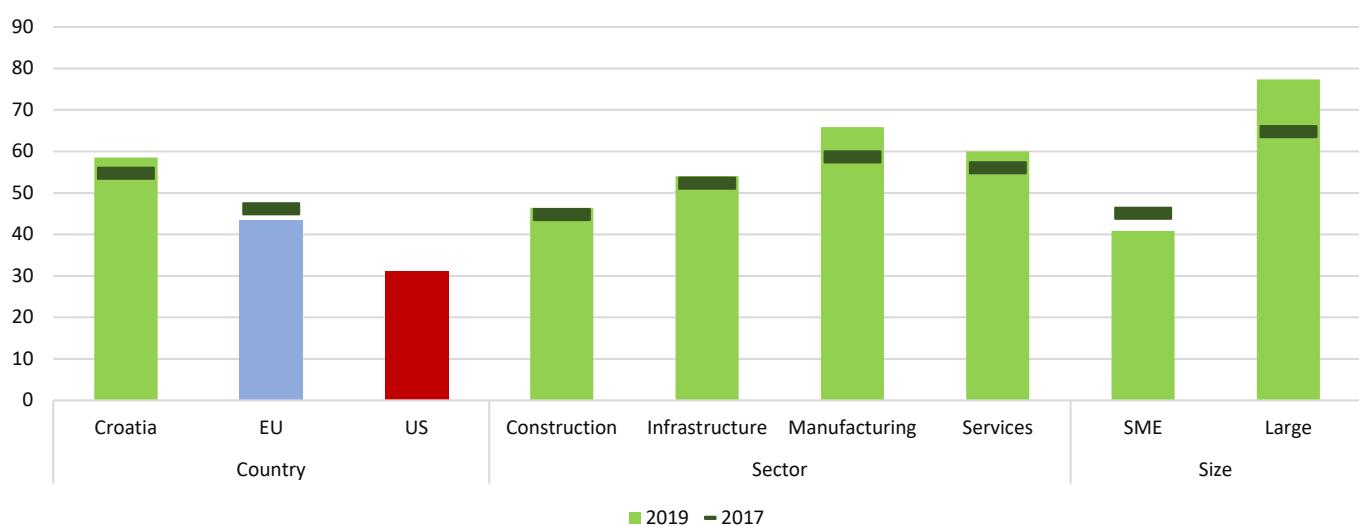
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

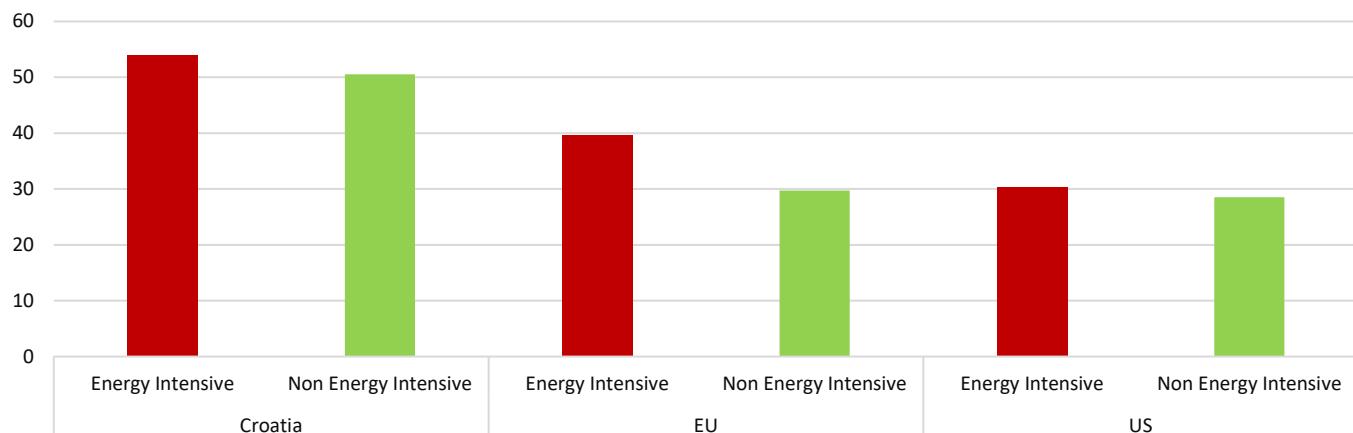
A1. Share of firms with an energy audit in the past three years (%)



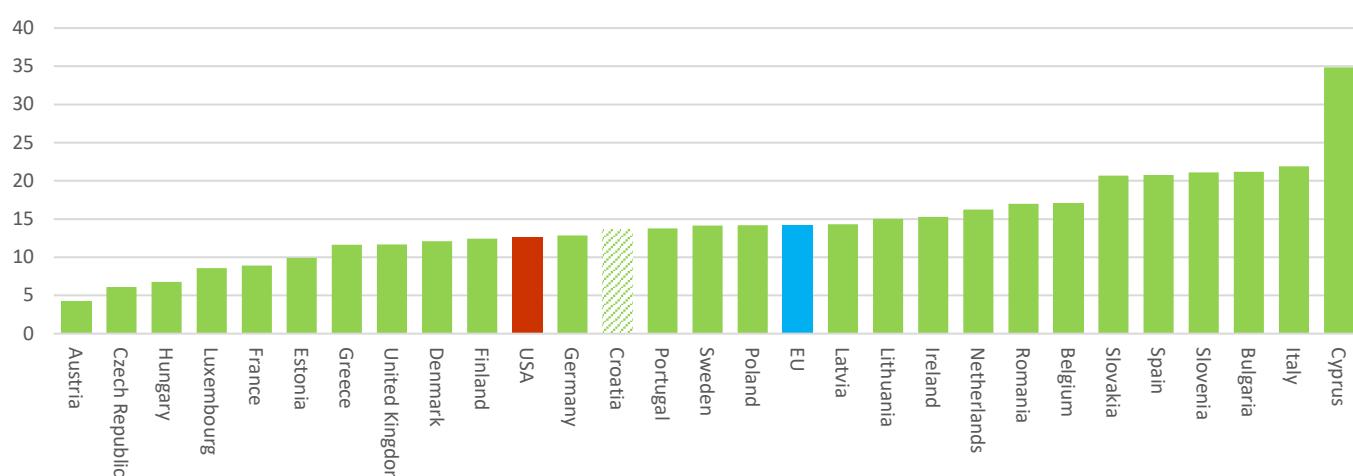
Base: All firms (data not shown for those who said no/don't know/refused)

CROATIA – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

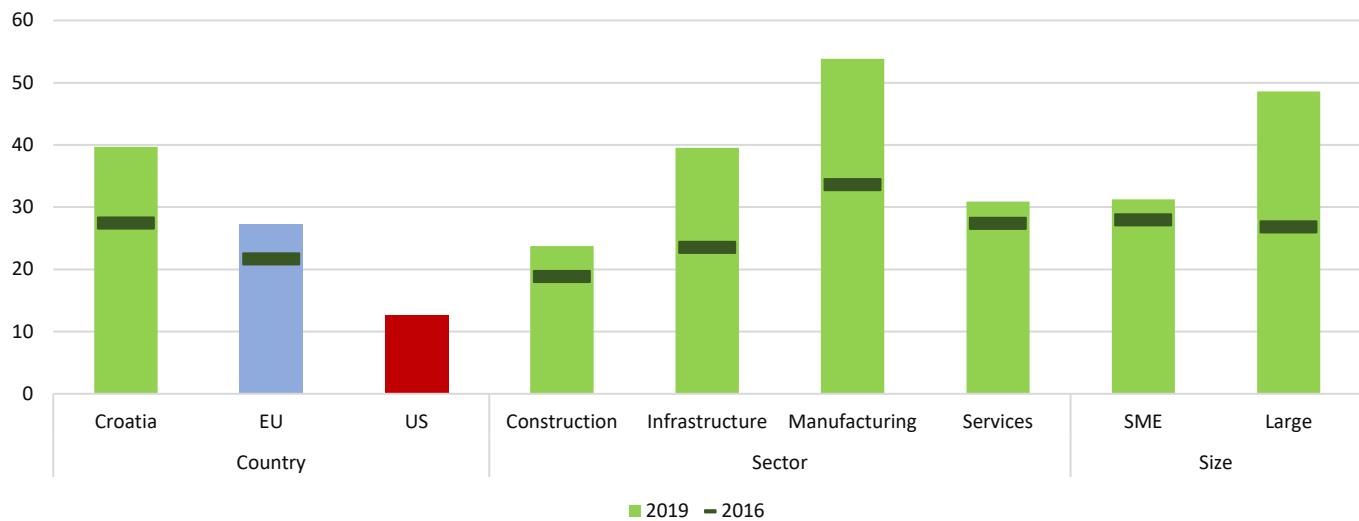
| | Energy costs | | Availability of skilled staff | | Business regulations | | Availability of finance | | Uncertainty about the future | |
|----------------------|--------------|----|-------------------------------|----|----------------------|----|-------------------------|----|------------------------------|----|
| Total | 42 | 44 | 71 | 73 | 43 | 48 | 13 | 13 | 87 | 40 |
| Large | 52 | 53 | 71 | 71 | 33 | 47 | 5 | 5 | 24 | 34 |
| SME | 32 | 35 | 71 | 75 | 54 | 48 | 21 | 20 | 50 | 45 |
| Services | 33 | 33 | 70 | 74 | 45 | 46 | 16 | 13 | 50 | 51 |
| Manufacturing | 46 | 46 | 71 | 77 | 54 | 52 | 15 | 18 | 46 | 39 |
| Infrastructure | 27 | 40 | 63 | 60 | 54 | 30 | 23 | 10 | 45 | 35 |
| Construction | 29 | 23 | 82 | 87 | 55 | 65 | 24 | 29 | 51 | 55 |
| Energy Intensive | 45 | 47 | 62 | 65 | 56 | 41 | 20 | 10 | 41 | 40 |
| Non Energy Intensive | 29 | 30 | 74 | 80 | 49 | 55 | 19 | 16 | 50 | 43 |

● Invested also in EE ● Invested but not in EE

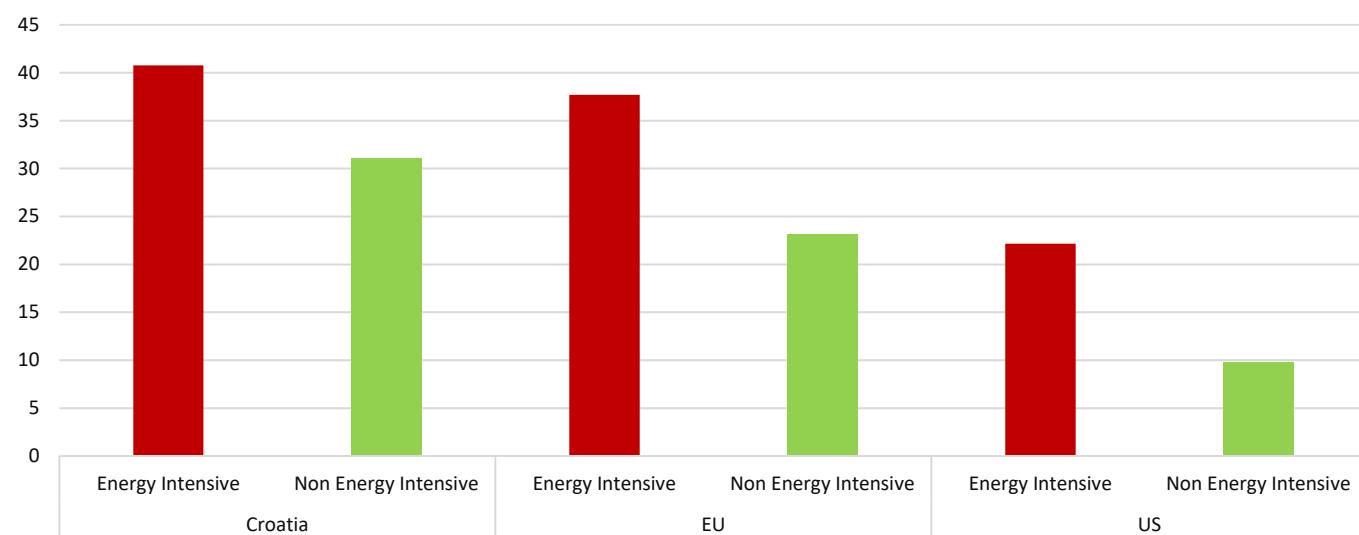
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

CROATIA – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



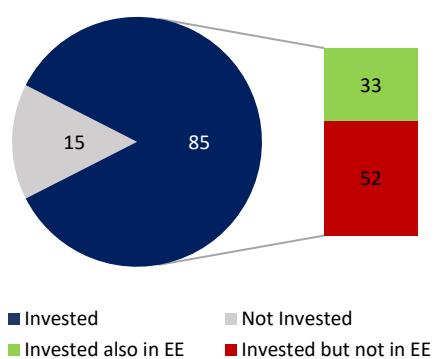
CYPRUS – ENERGY EFFICIENCY

Summary

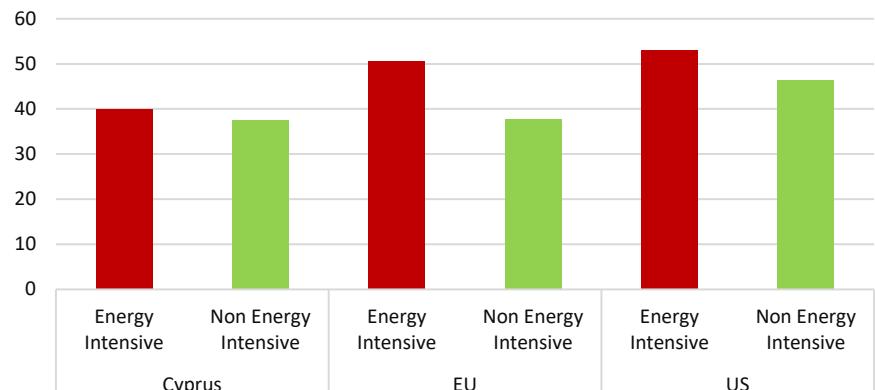
- *Two fifths* of firms that invest in Cyprus, also **invest in EE** (33% of all firms).
- Firms in Cyprus allocate **7% of their total investment in EE improvements**, less than the EU and the US average.
- Firms in Cyprus report *half* of their **building stock to be of high or highest energy efficiency (EE) standards**, a share significantly above that of EU and US counterparts (two fifths and a third, respectively).
- *Nearly 70%* of the firms surveyed in Cyprus with an **energy audit invest in EE improvements**.
- *More than two fifths* of the firms surveyed in Cyprus had an **energy audit** in the past three years, similar to the EU and above the US average. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors but also in services.
- Firms in Cyprus are *more likely* to **invest in EE improvements** when they implement **advanced management practices**.
- Firms that are *more affected by energy costs* are *more likely* to **invest in EE improvements**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



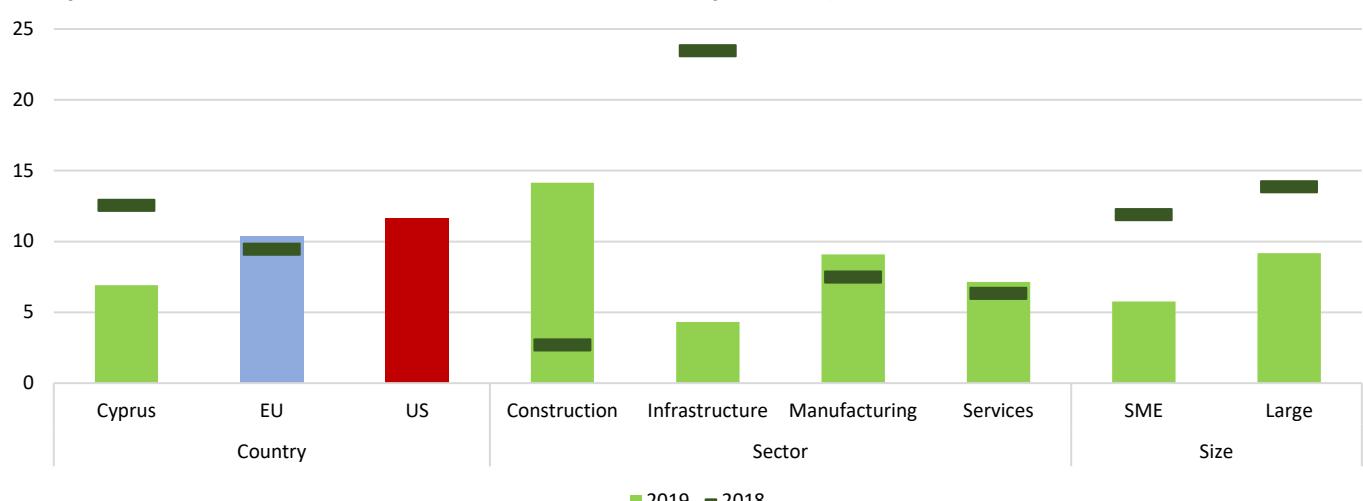
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

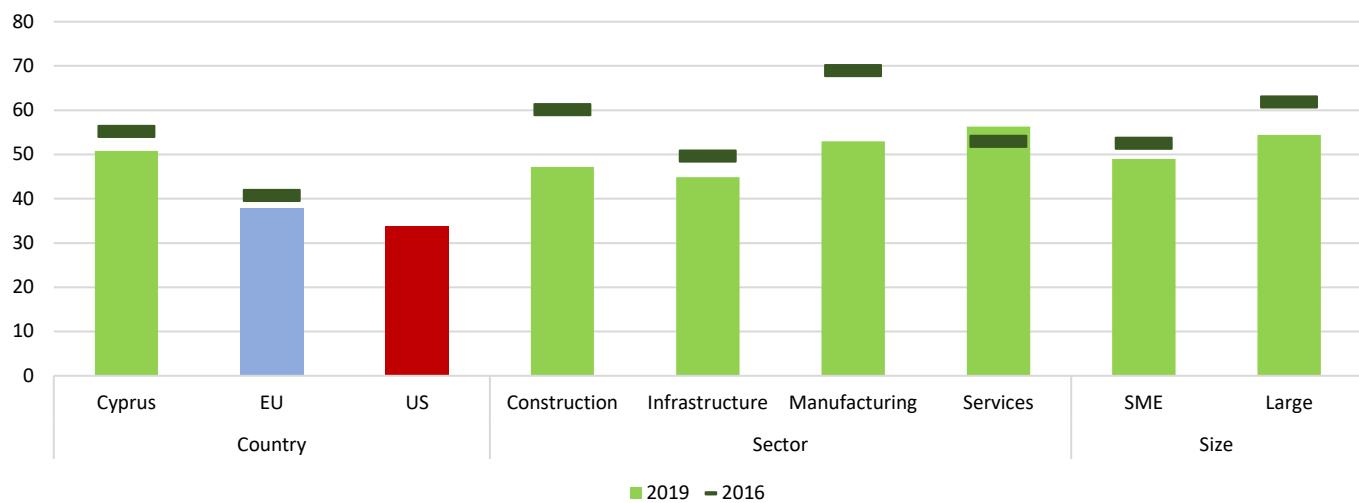


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

CYPRUS – ENERGY EFFICIENCY

D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

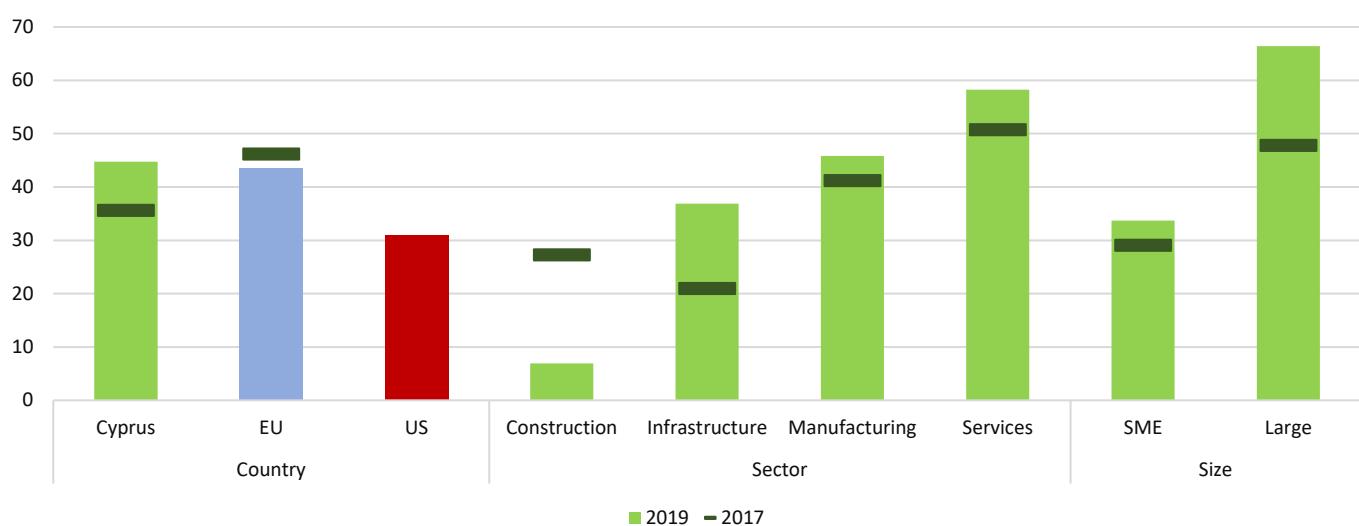
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

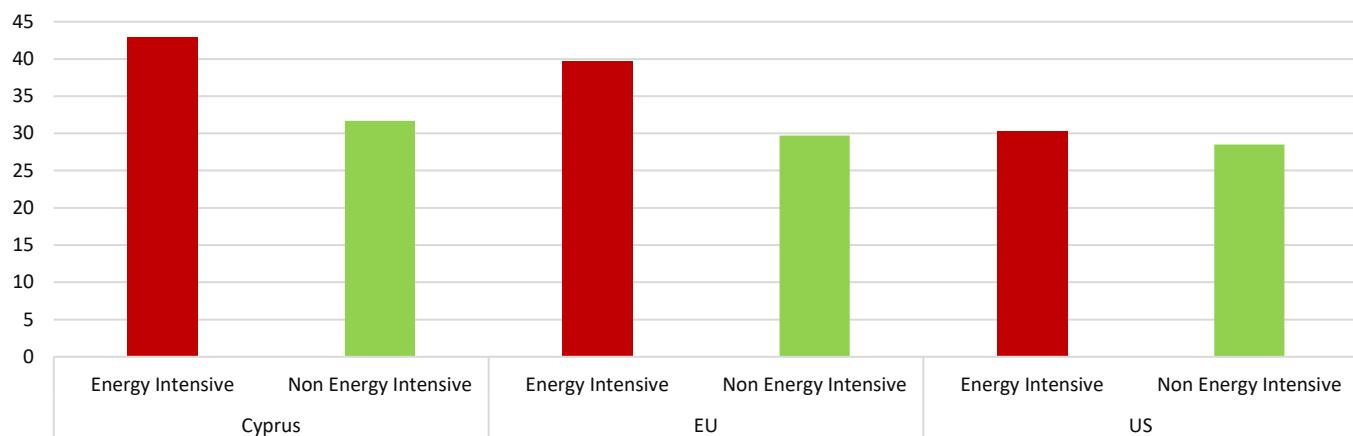
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

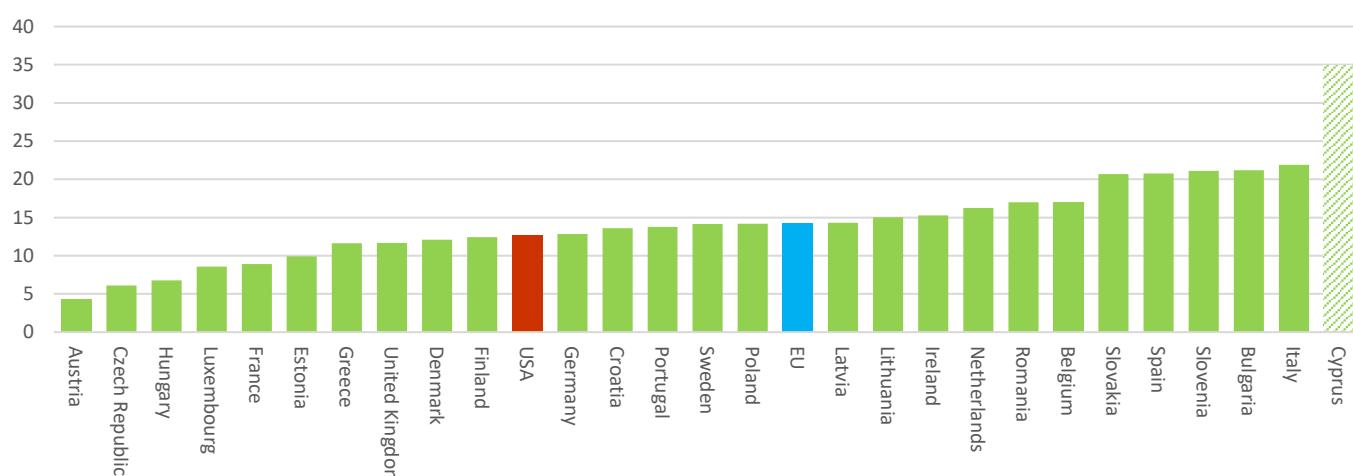
CYPRUS – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)*

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

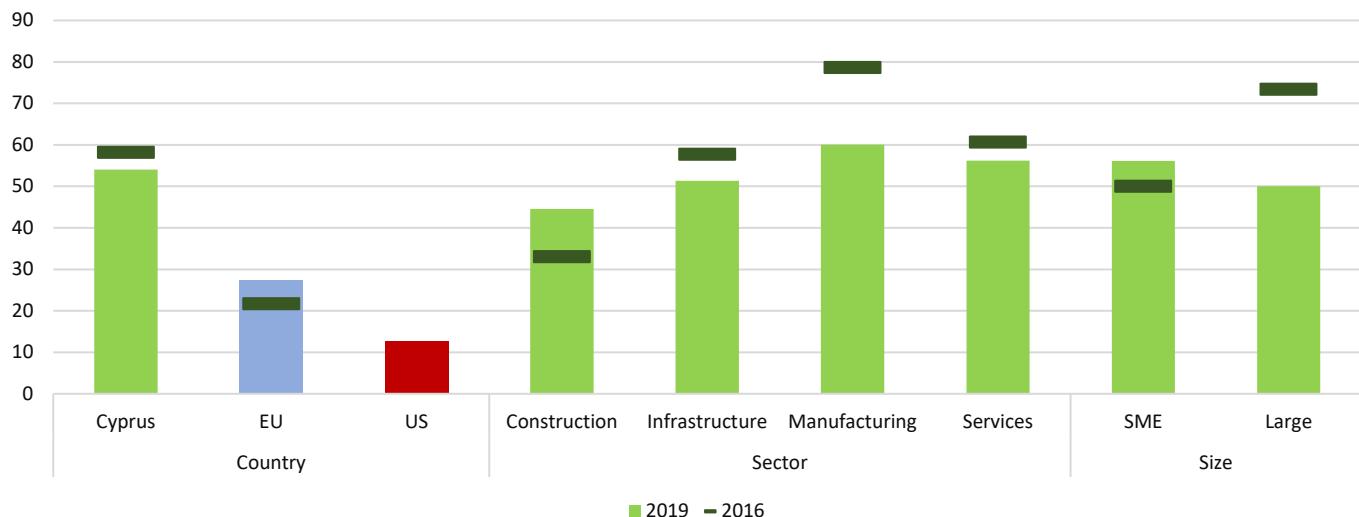
C. Long term barriers to investment



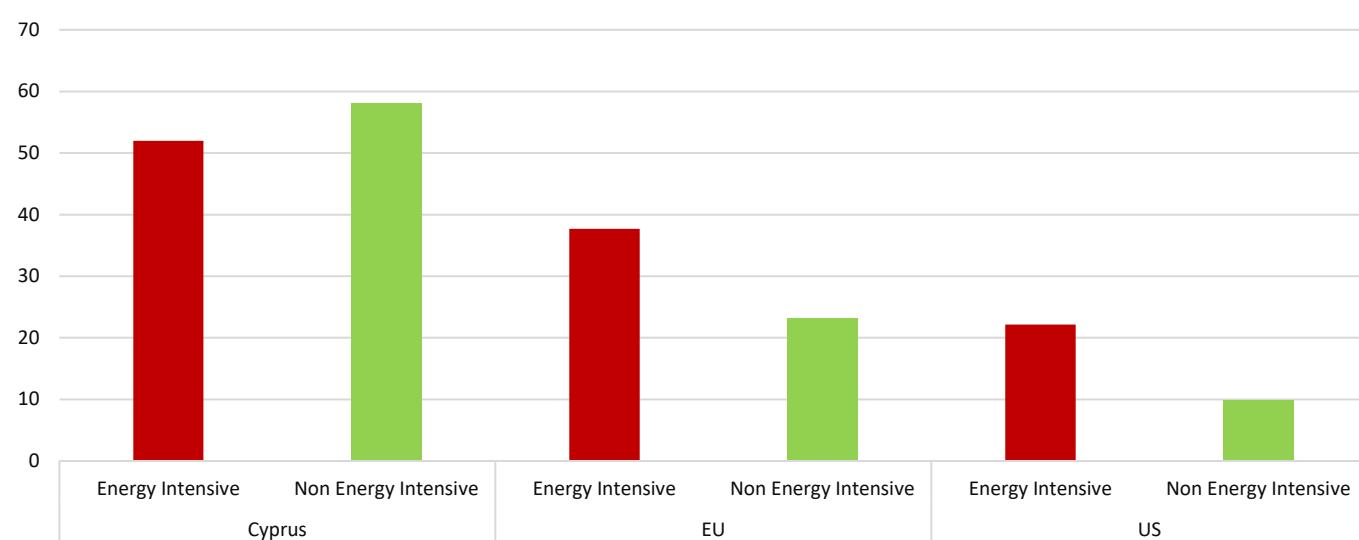
*Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)*

CYPRUS – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



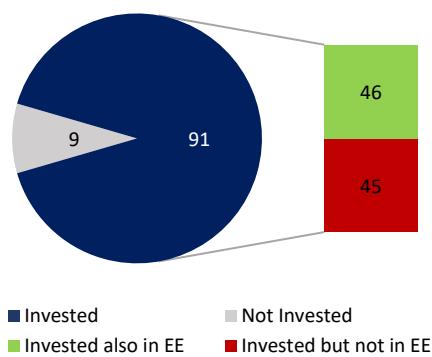
CZECH REPUBLIC – ENERGY EFFICIENCY

Summary

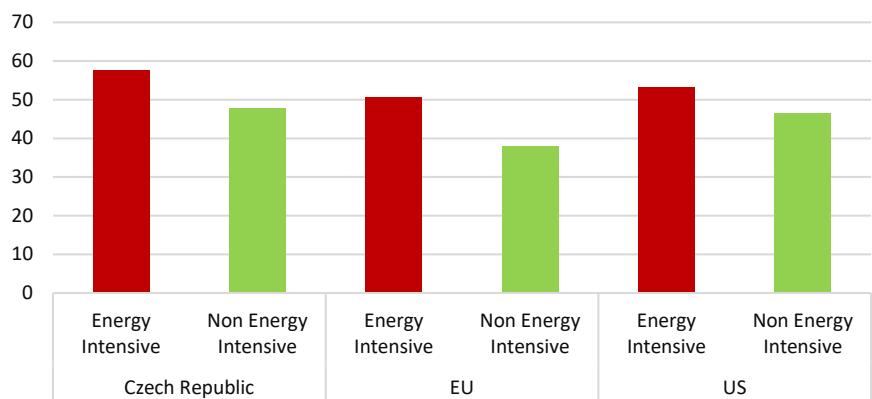
- Half of firms that invest in Czech Republic, also **invest in EE** (46% of all firms). This share rises to 58% for the energy intensive sectors.
- Firms in Czech Republic allocate **more than a tenth of their total investment in EE improvements**, similar to the EU and the US.
- Firms in Czech Republic report **roughly a third** of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and similar to the US.
- Seven in ten** of the firms surveyed in Czech Republic with an **energy audit invest in EE improvements**.
- More than half** of the firms surveyed in Czech Republic had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Czech Republic are more likely to invest in EE improvements when they implement advanced management practices.**

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



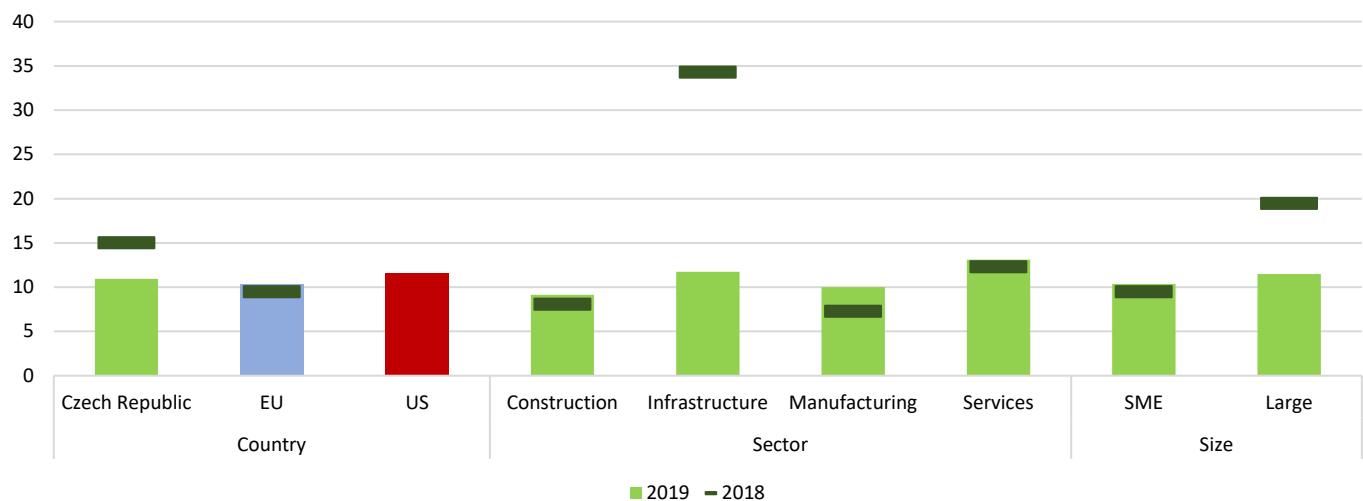
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

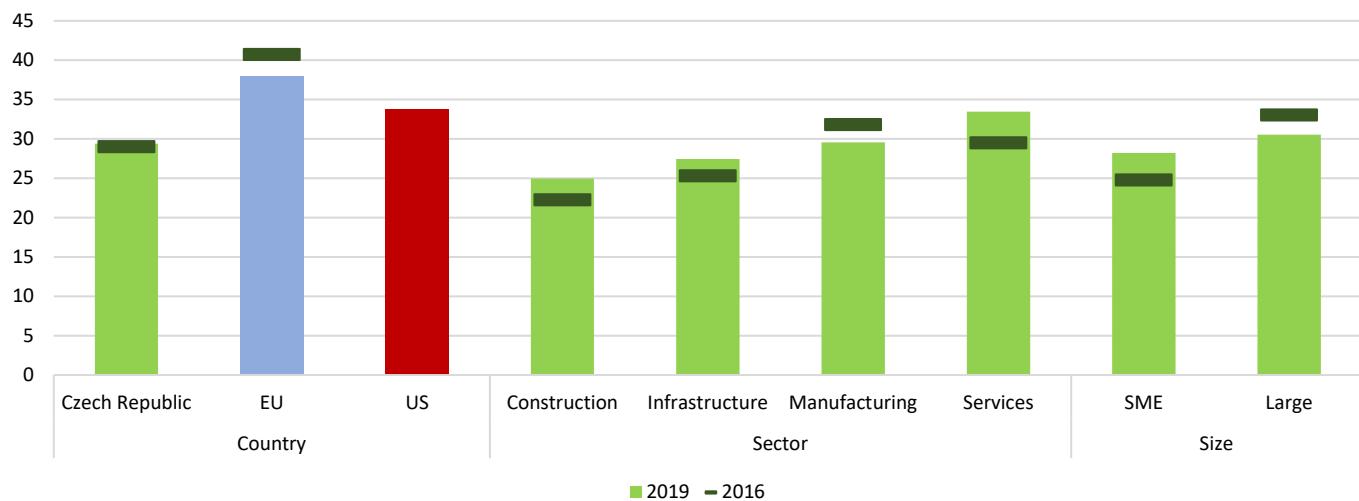


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

CZECH REPUBLIC – ENERGY EFFICIENCY

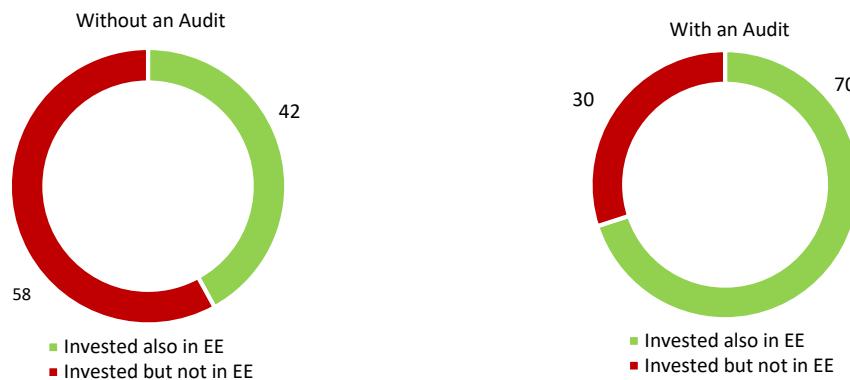
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

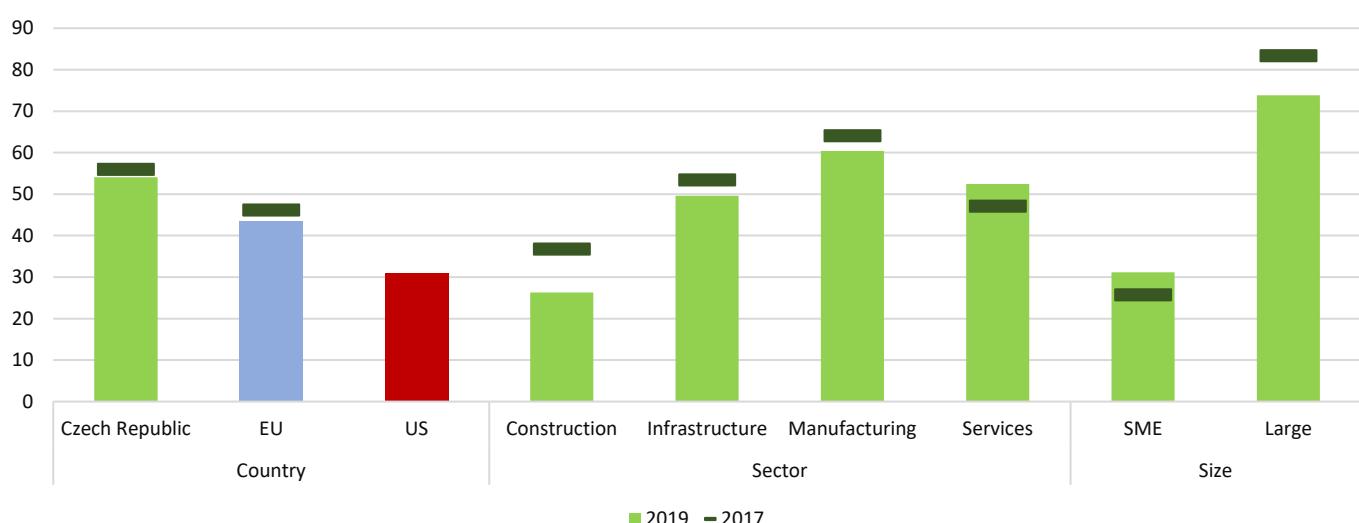
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

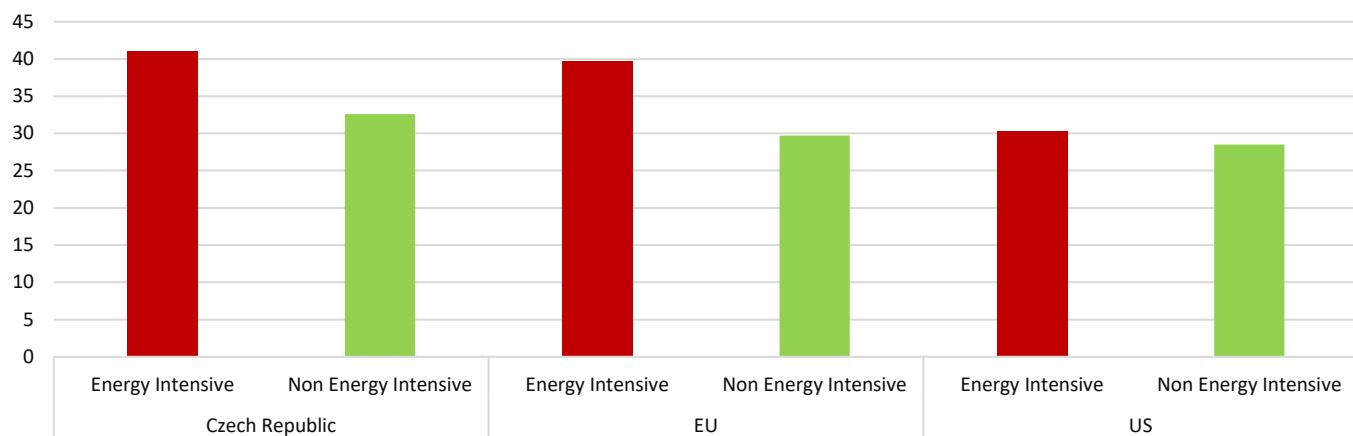
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

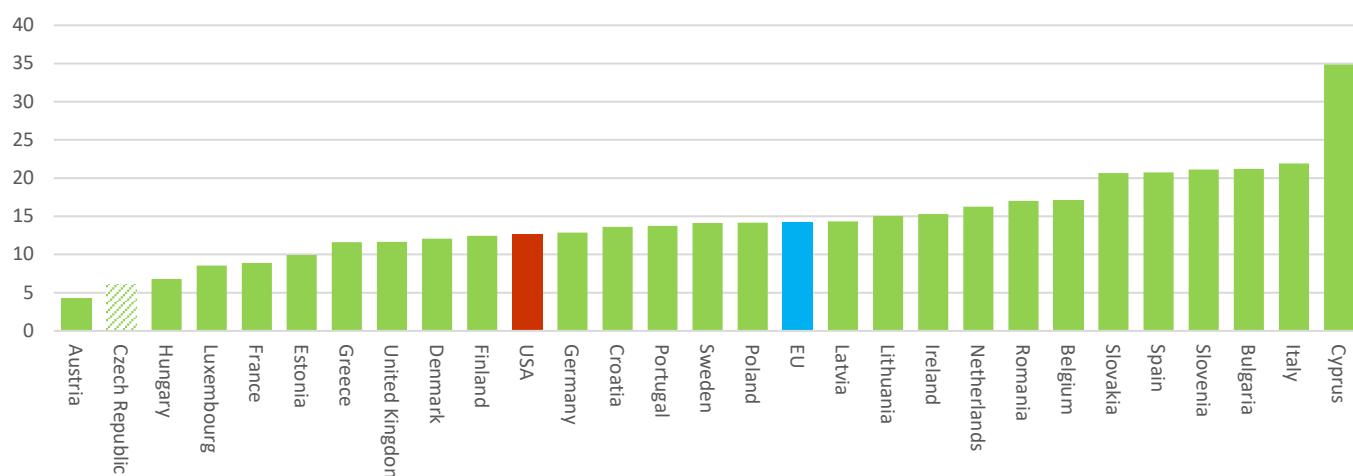
CZECH REPUBLIC – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

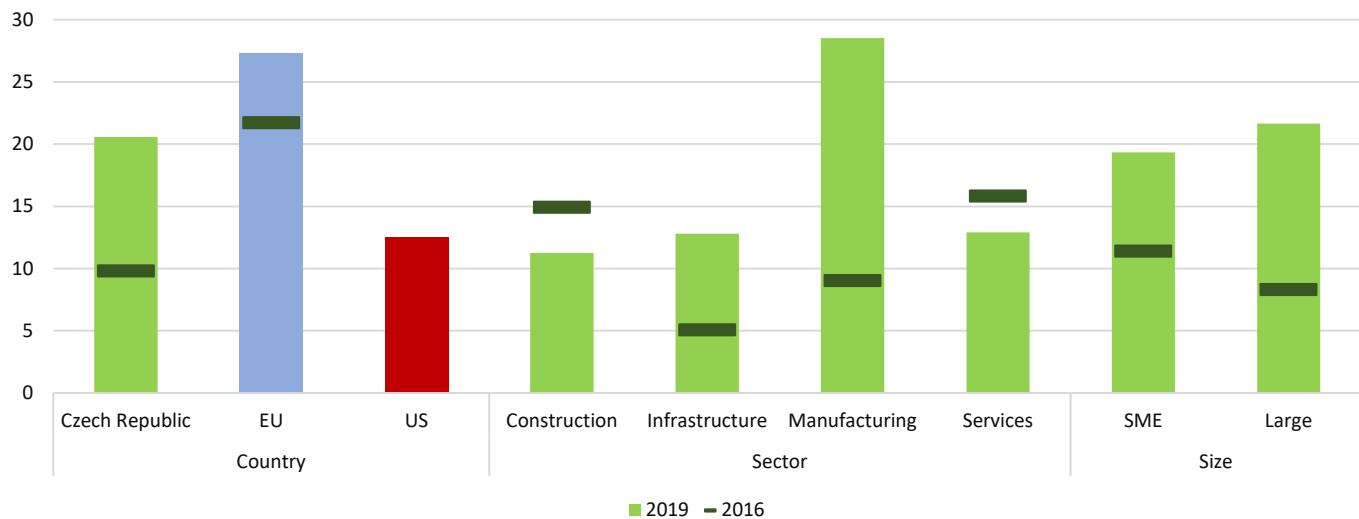
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 23 | 19 | 25 | 8 | 25 |
| Large | 29 | 20 | 24 | 6 | 18 |
| SME | 16 | 18 | 26 | 11 | 33 |
| Services | 8 | 13 | 29 | 2 | 31 |
| Manufacturing | 30 | 28 | 25 | 14 | 32 |
| Infrastructure | 11 | 16 | 20 | 7 | 30 |
| Construction | 14 | 11 | 26 | 7 | 33 |
| Energy Intensive | 20 | 21 | 29 | 8 | 27 |
| Non Energy Intensive | 16 | 15 | 24 | 11 | 33 |

● Invested also in EE ● Invested but not in EE

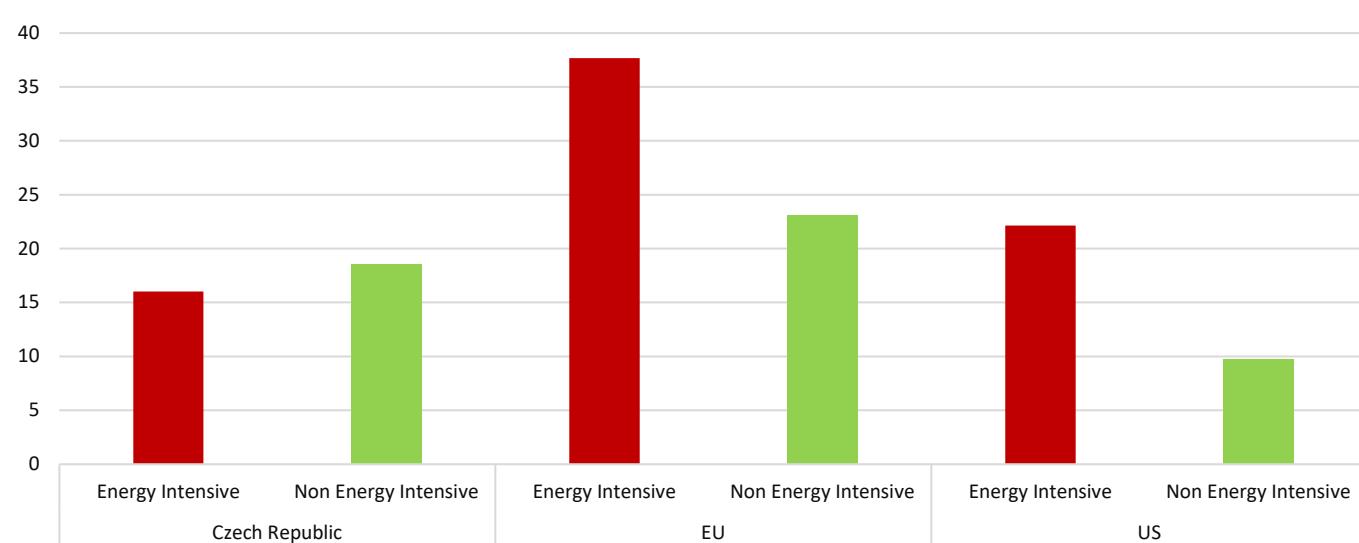
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

CZECH REPUBLIC – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity

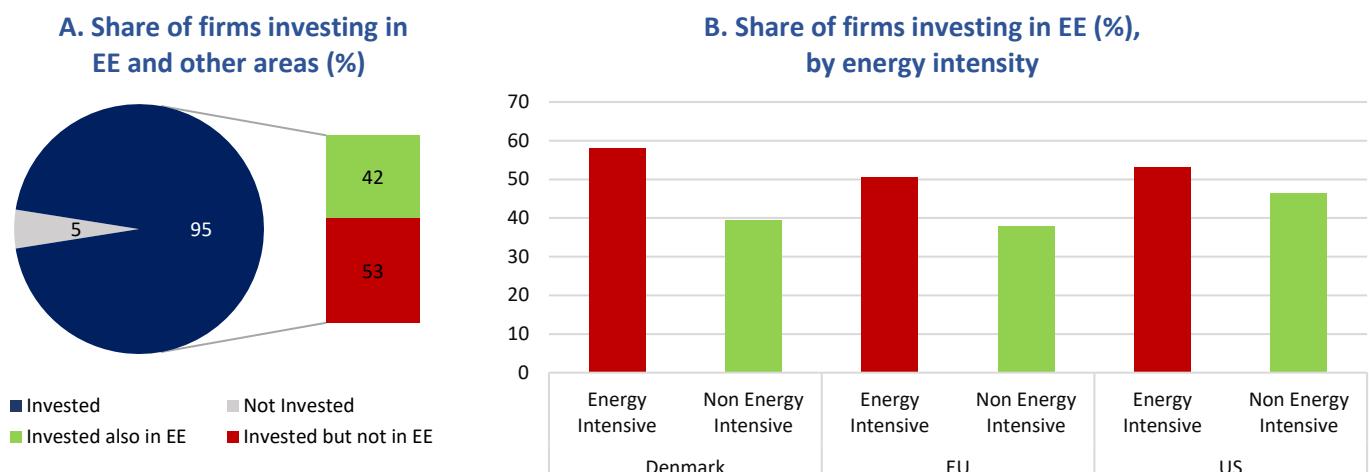


DENMARK – ENERGY EFFICIENCY

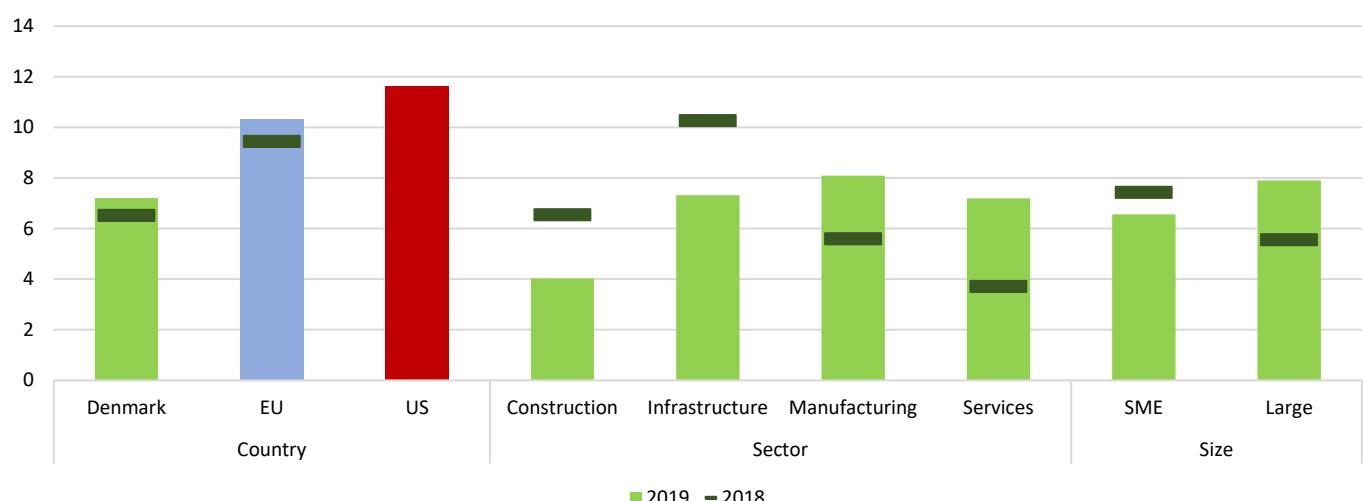
Summary

- More than two fifths of firms in Denmark invest in EE (42% of all firms). This share rises to 58% for the energy intensive sectors.
- Firms in Denmark allocate 7% of their total investment in EE improvements, less than the EU and the US average. This proportion is higher in energy intensive sectors such as manufacturing.
- Firms in Denmark report less than 30% of their building stock to be of high or highest energy efficiency (EE) standards, compared to two fifths in the EU and a third in the US.
- Almost two thirds of the firms surveyed in Denmark with an energy audit invest in EE improvements.
- Two fifths of the firms surveyed in Denmark had an energy audit in the past three years, similar to the EU and compared to a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Denmark are more likely to invest in EE improvements when they implement advanced management practices.

Energy efficiency (EE) investment

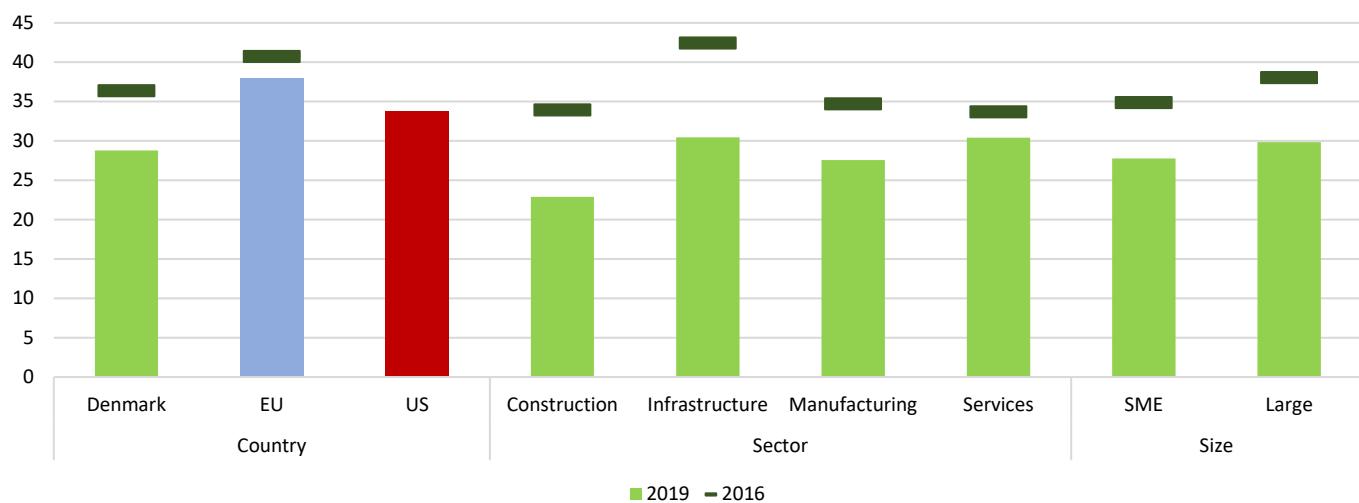


C. Proportion of firms' total investment for measures to improve EE (%)



DENMARK – ENERGY EFFICIENCY

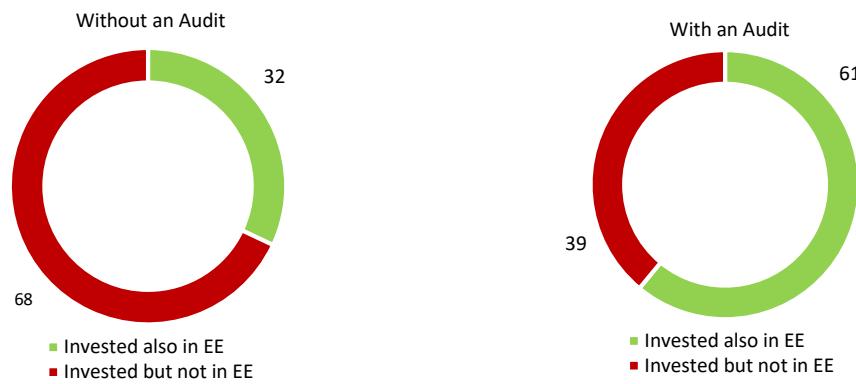
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

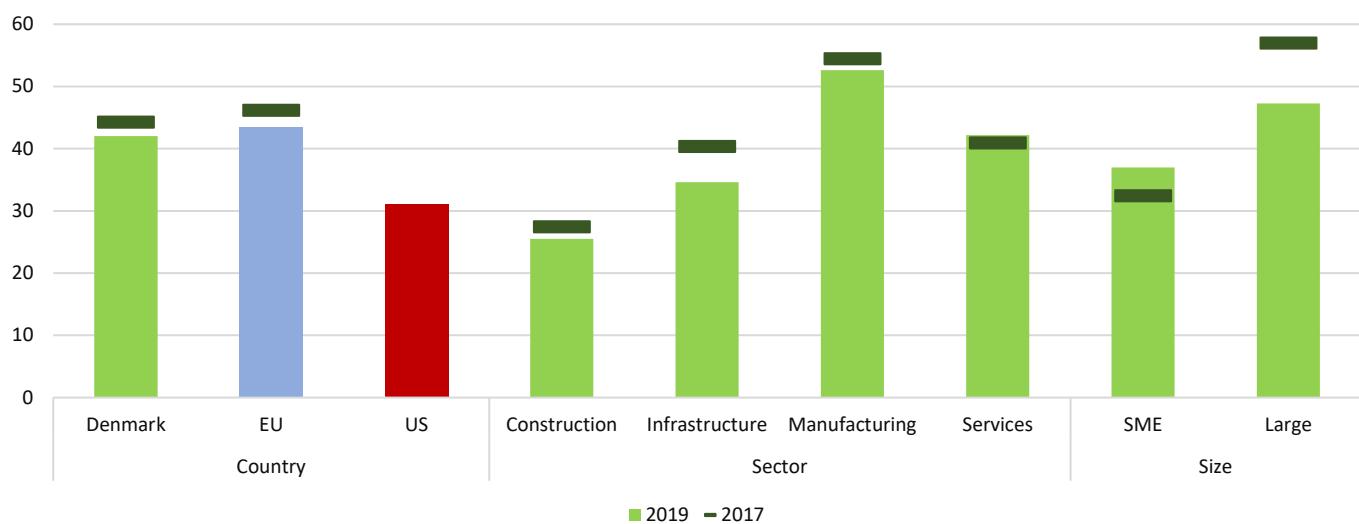
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

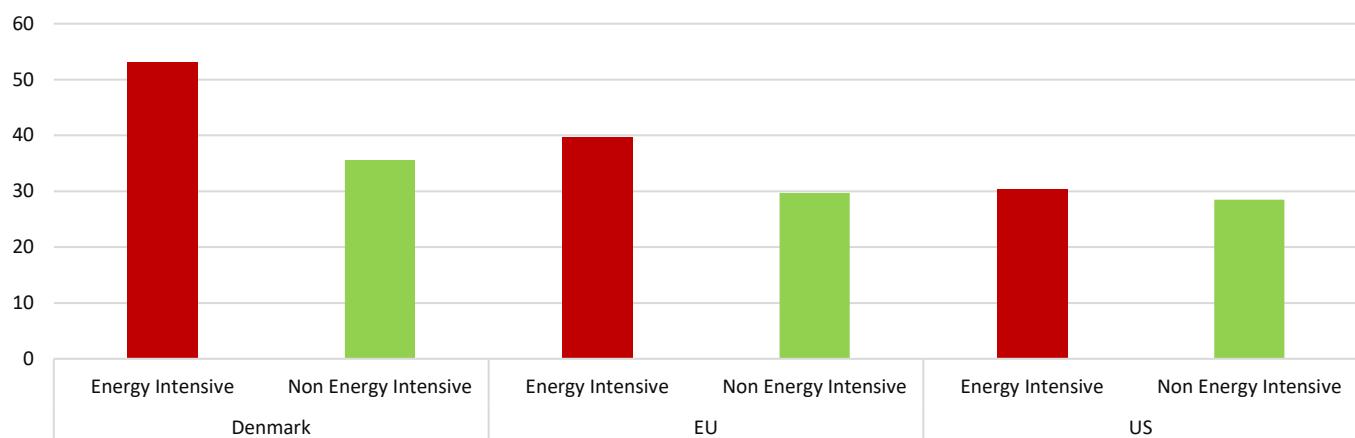
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

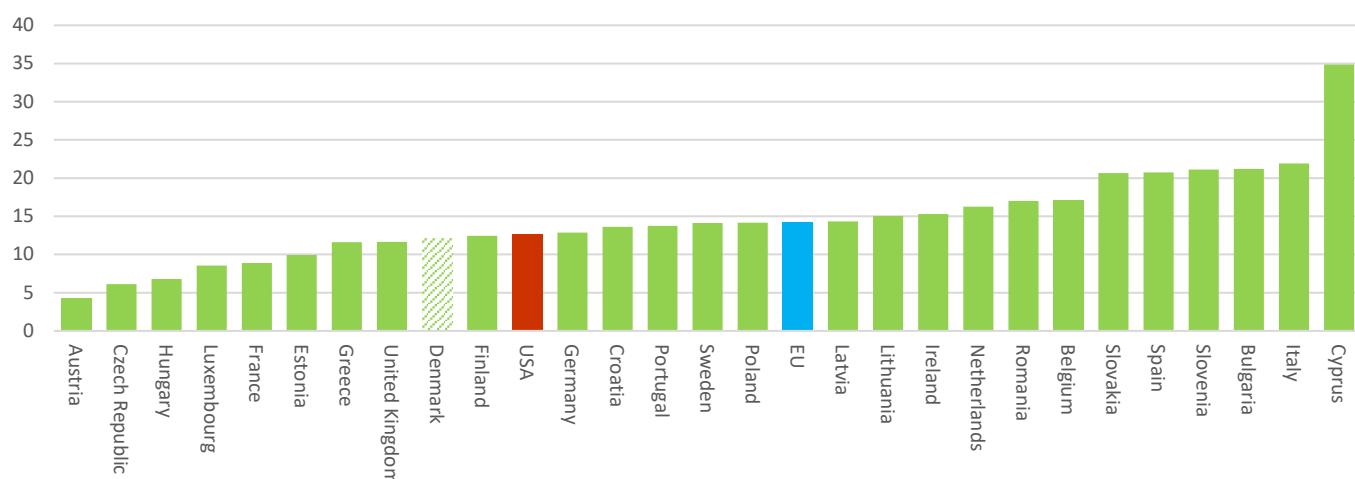
DENMARK – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 6 | 7 | 41 | 26 | 3 |
| Large | 7 | 4 | 43 | 15 | 4 |
| SME | 4 | 10 | 40 | 38 | 5 |
| Services | 4 | 8 | 25 | 38 | 4 |
| Manufacturing | 6 | 7 | 37 | 26 | 7 |
| Infrastructure | 4 | 13 | 46 | 25 | 2 |
| Construction | 6 | 8 | 54 | 44 | 15 |
| Energy Intensive | 11 | 12 | 44 | 27 | 15 |
| Non Energy Intensive | 3 | 7 | 39 | 35 | 6 |

● Invested also in EE ● Invested but not in EE

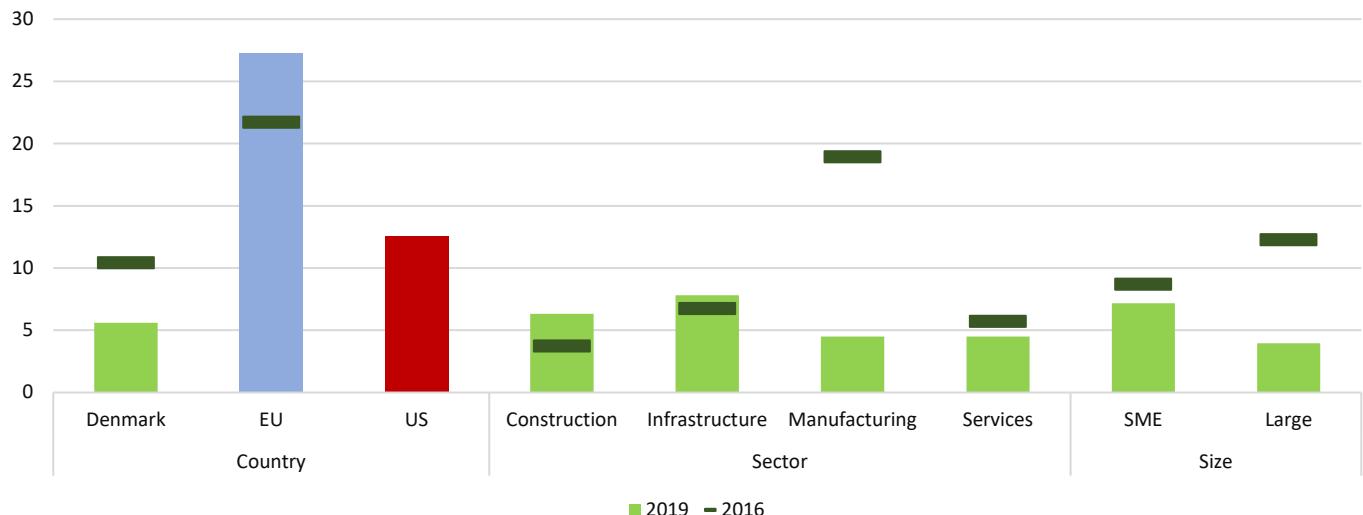
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?

Going green: Who is investing in energy efficiency, and why it matters

Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

DENMARK – ENERGY EFFICIENCY

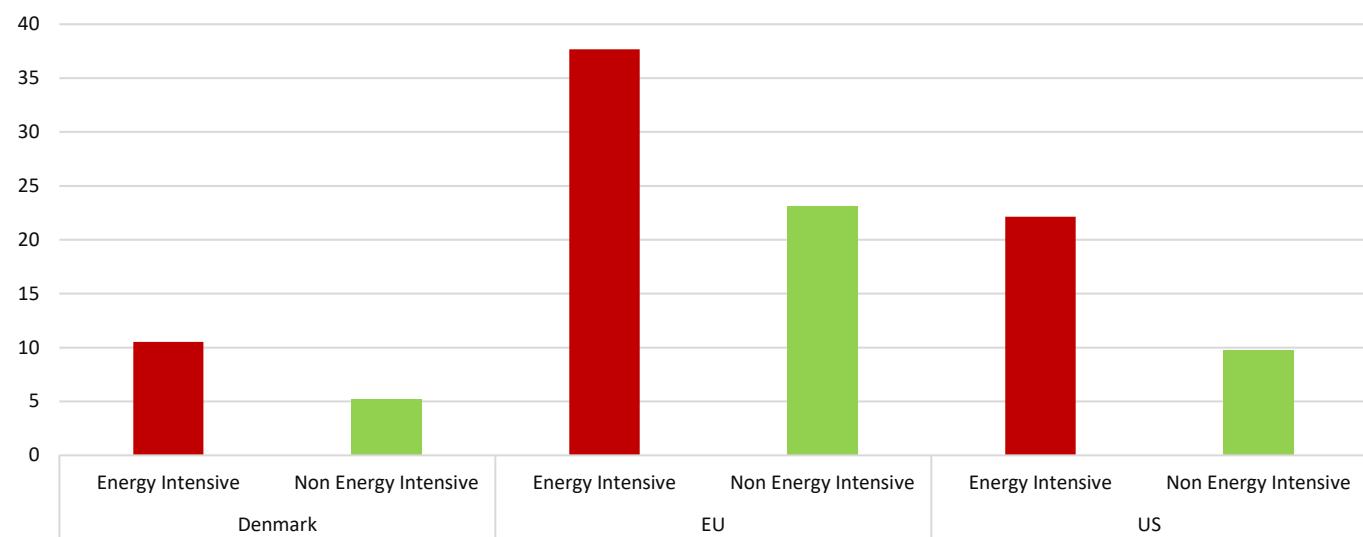
D. Energy costs as major obstacle to investment (%)



Q: Thinking about your investment activities, to what extent are energy costs an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?

Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

D1. Energy costs as major obstacle to investment (%), by energy intensity



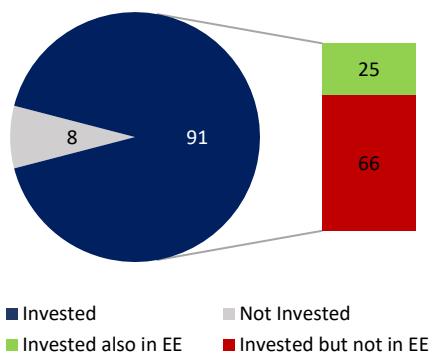
ESTONIA – ENERGY EFFICIENCY

Summary

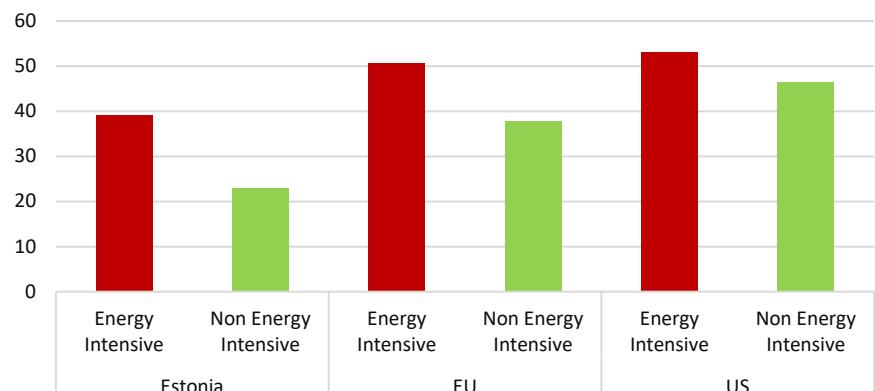
- Nearly 30% of firms that invest in Estonia, also **invest in EE** (25% of all firms). This share jumps to 40% for the energy intensive sectors.
- Firms in Estonia allocate **6% of their total investment in EE improvements**, less than the EU and the US average.
- Firms in Estonia report *a fourth* of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and a third in the US.
- More than half* of the firms surveyed in Estonia with an **energy audit invest in EE improvements**.
- A *fifth* of the firms surveyed in Estonia had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors, but also in the services sector.
- Firms in Estonia *are more likely to invest in EE improvements when they implement advanced management practices*.
- Firms that are *more affected by energy costs are more likely to invest in EE improvements*.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity

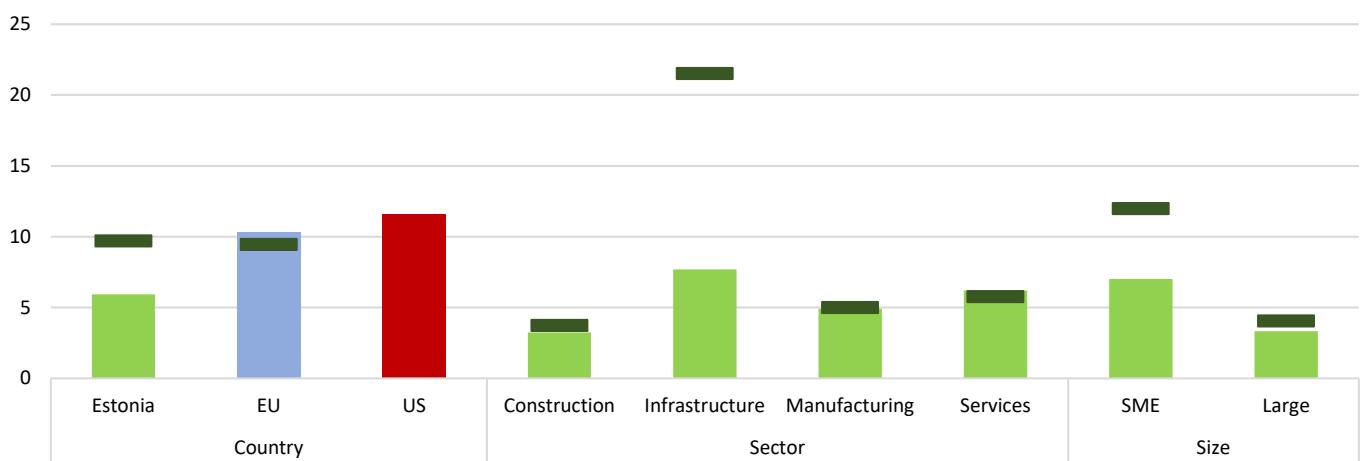


Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?
Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

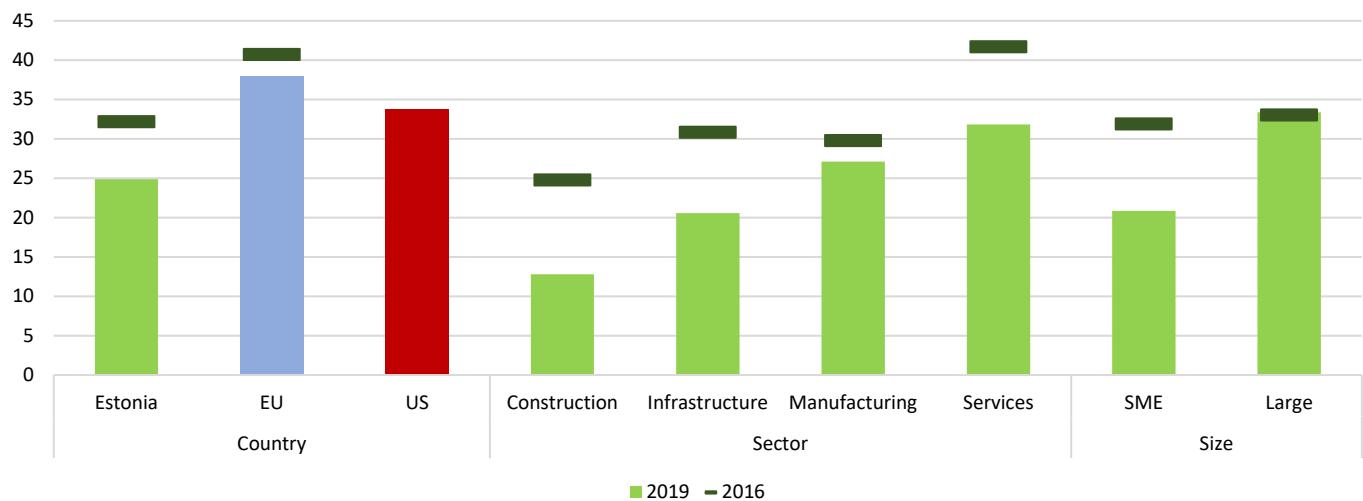
C. Proportion of firms' total investment for measures to improve EE (%)



Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?
Base: All firms which have invested (data not shown for those who said don't know/refused)

ESTONIA – ENERGY EFFICIENCY

D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

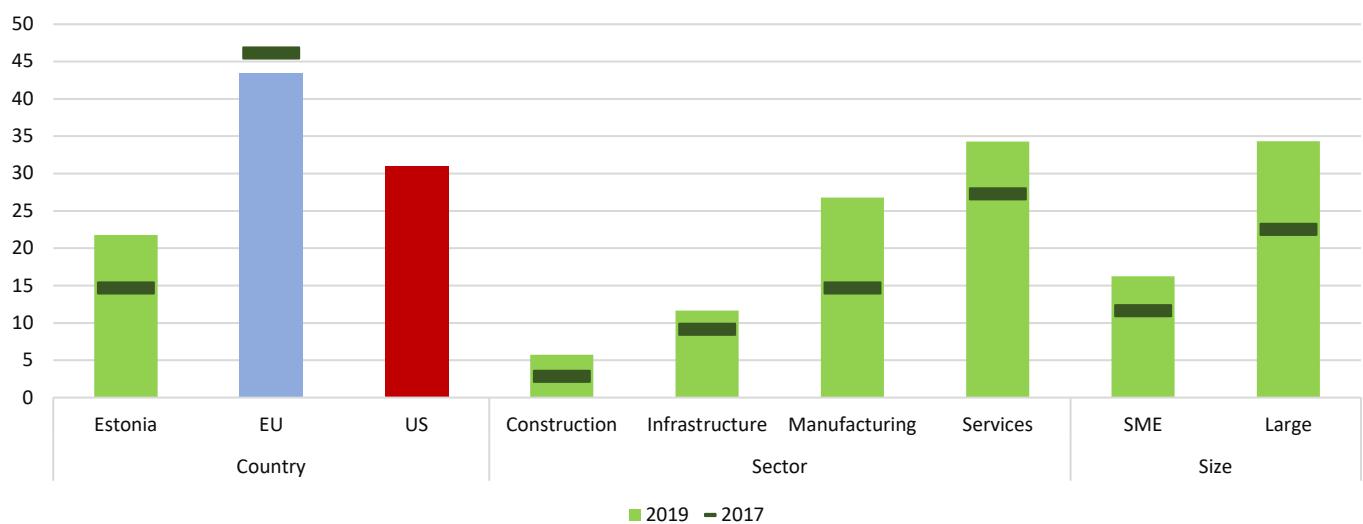
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

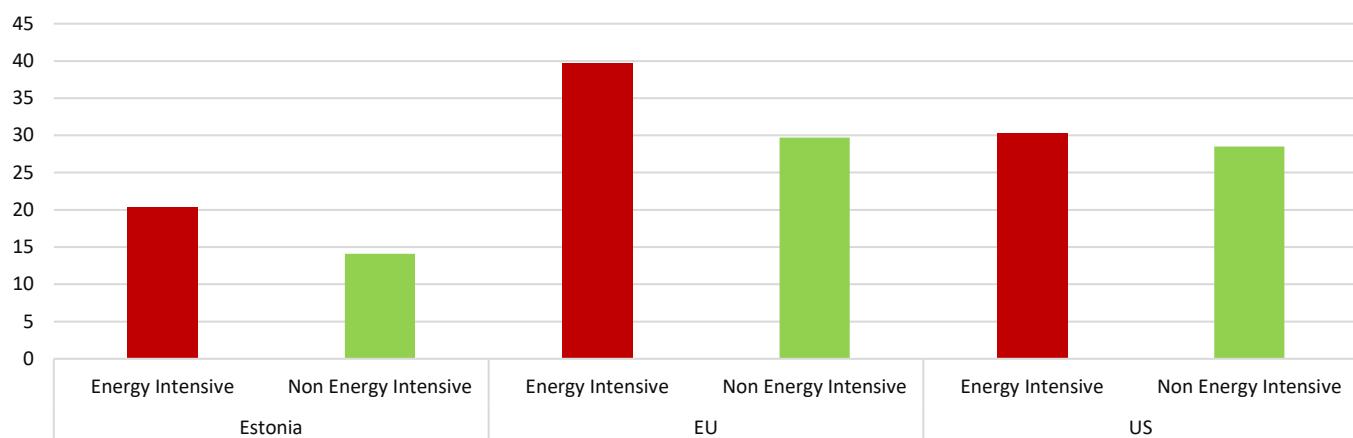
A1. Share of firms with an energy audit in the past three years (%)



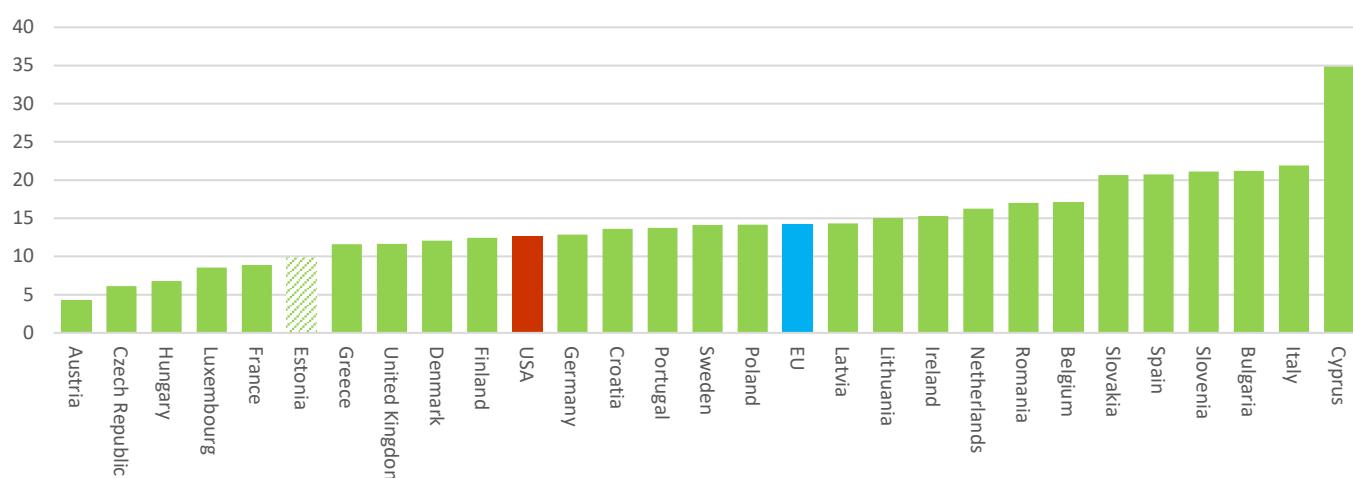
Base: All firms (data not shown for those who said no/don't know/refused)

ESTONIA – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

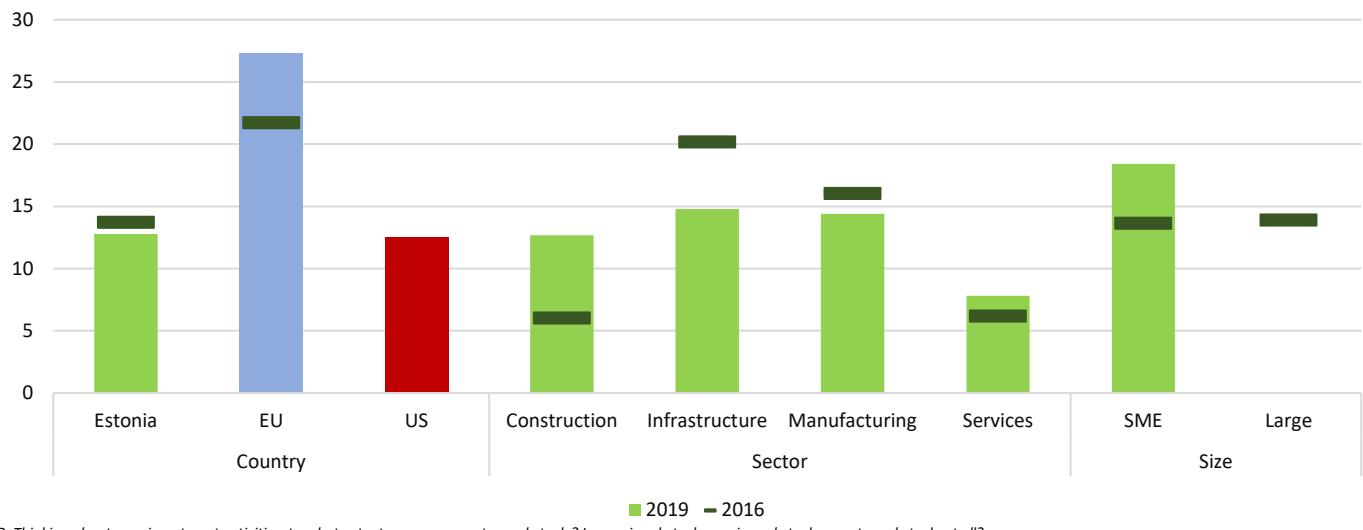
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 8 | 10 | 50 | 10 | 12 |
| Large | | 38 | 45 | 13 | 9 |
| SME | 16 | 20 | 62 | 19 | 15 |
| Services | 12 | 7 | 57 | 10 | 7 |
| Manufacturing | 21 | 15 | 57 | 16 | 16 |
| Infrastructure | 21 | 30 | 64 | 16 | 20 |
| Construction | 6 | 23 | 64 | 23 | 15 |
| Energy Intensive | 34 | 27 | 64 | 12 | 22 |
| Non Energy Intensive | 8 | 17 | 60 | 20 | 4 |

● Invested also in EE ● Invested but not in EE

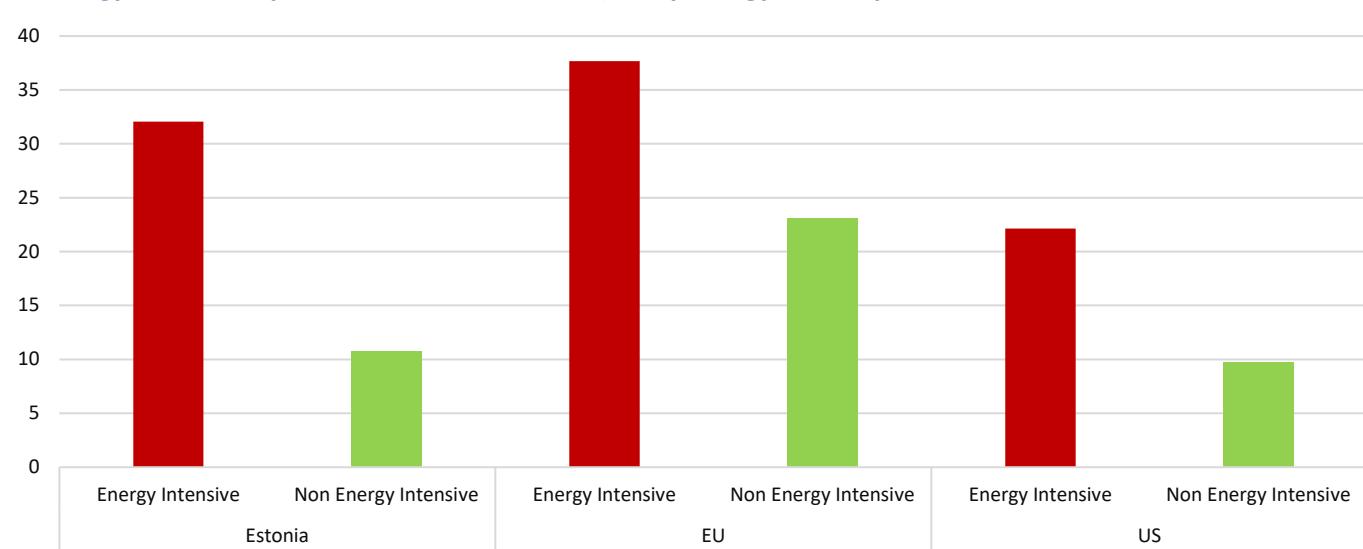
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

ESTONIA – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



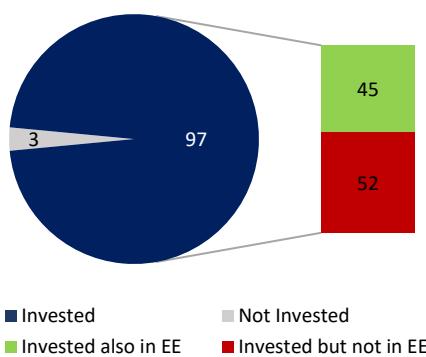
FINLAND – ENERGY EFFICIENCY

Summary

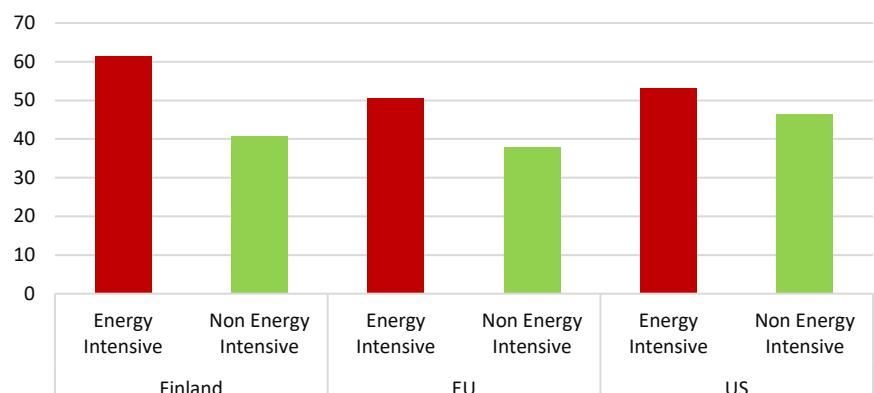
- Almost half of firms that invest in Finland, also **invest in EE** (45% of all firms). This share jumps to 61% for the energy intensive sectors.
- Firms in Finland allocate **less than a tenth of their total investment in EE improvements**, less than the EU and the US average. This proportion is higher in energy intensive sectors such as manufacturing and infrastructure.
- Firms in Finland report **a fourth** of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and a third in the US.
- Almost 60% of the firms surveyed in Finland with an **energy audit invest in EE improvements**.
- Half of the firms surveyed in Finland had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Finland are more likely to **invest in EE improvements when they implement advanced management practices**.
- Firms that are more affected by energy costs are more likely to invest in EE improvements.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



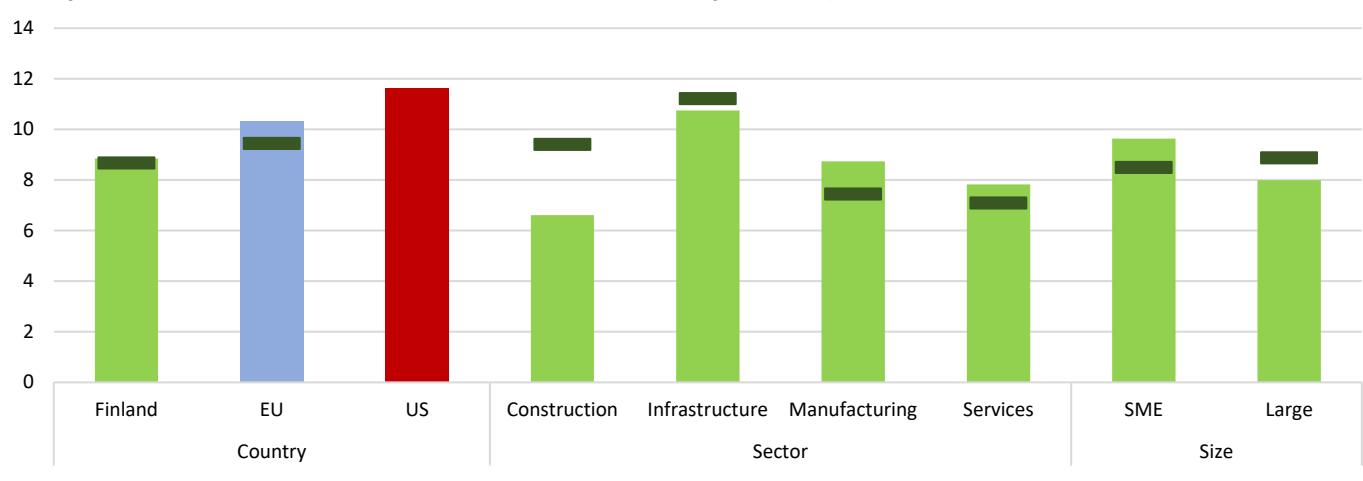
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

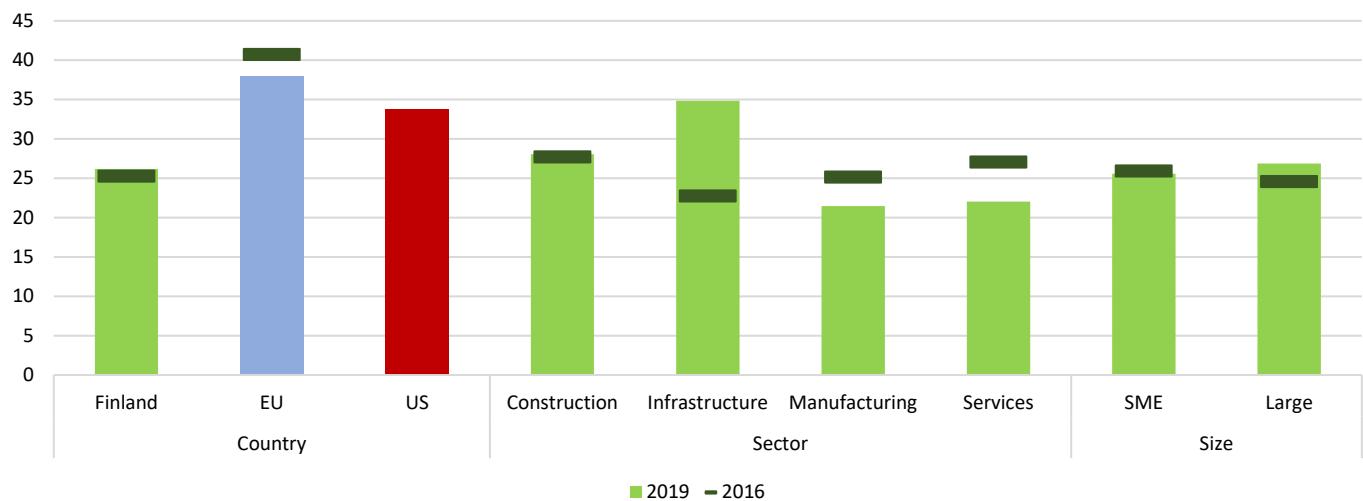


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

FINLAND – ENERGY EFFICIENCY

D. Perceived share of building stock of high or highest energy efficiency standards (%)

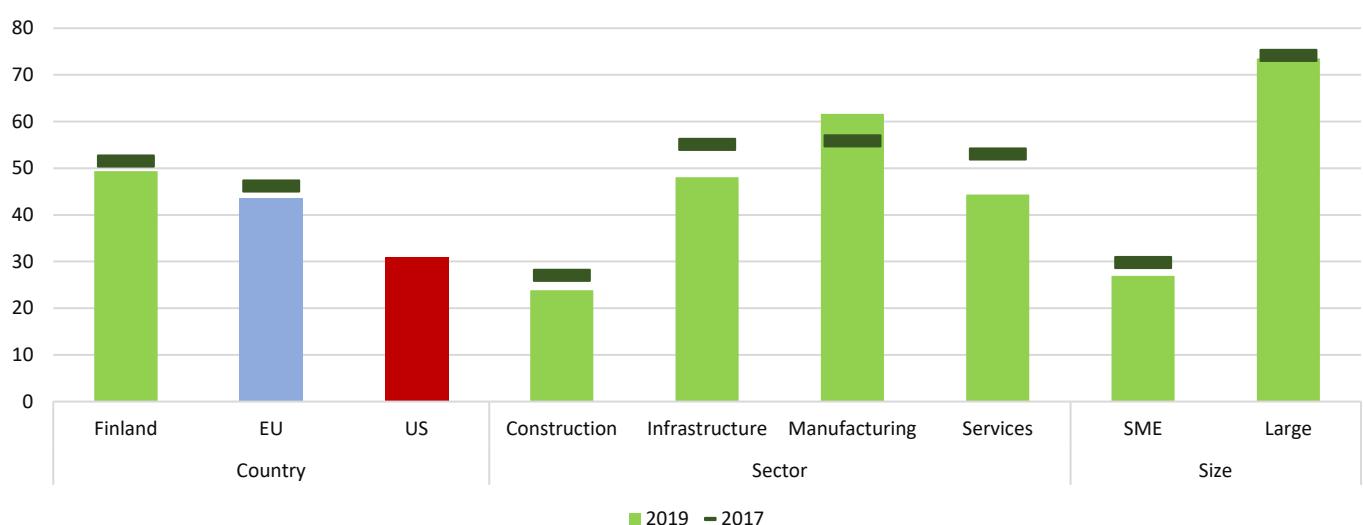


Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions

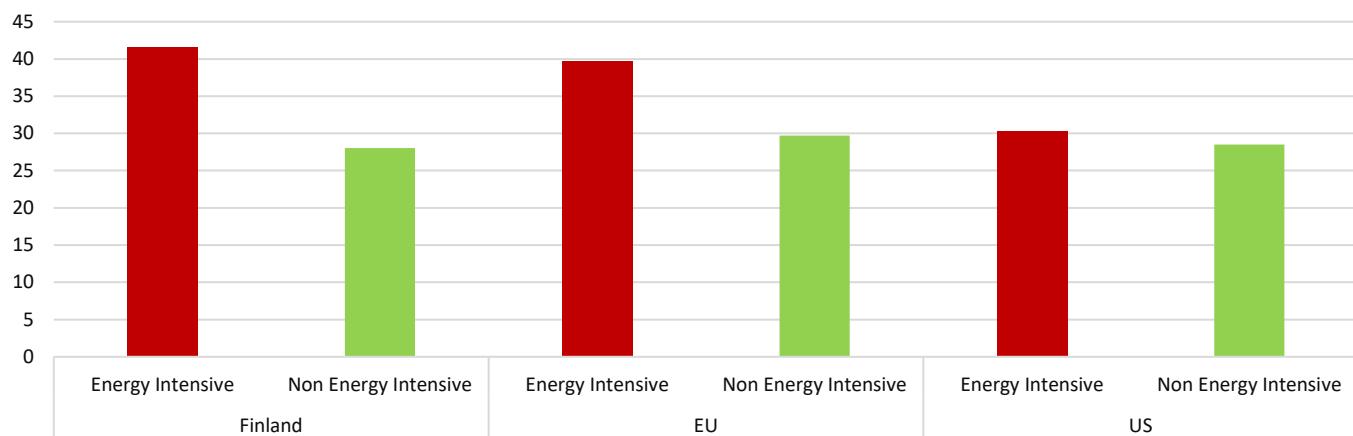


A1. Share of firms with an energy audit in the past three years (%)



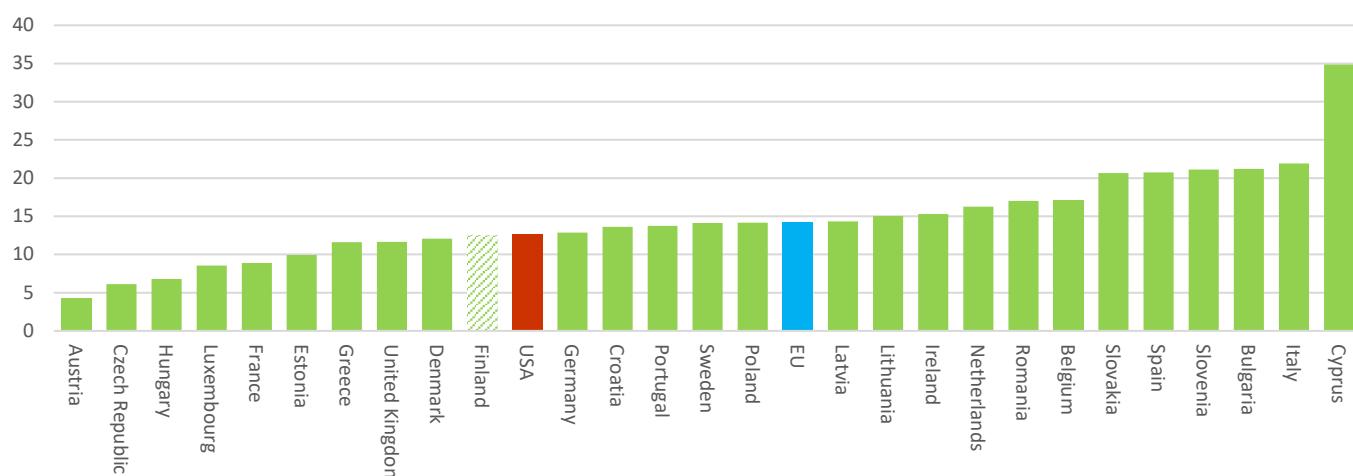
FINLAND – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

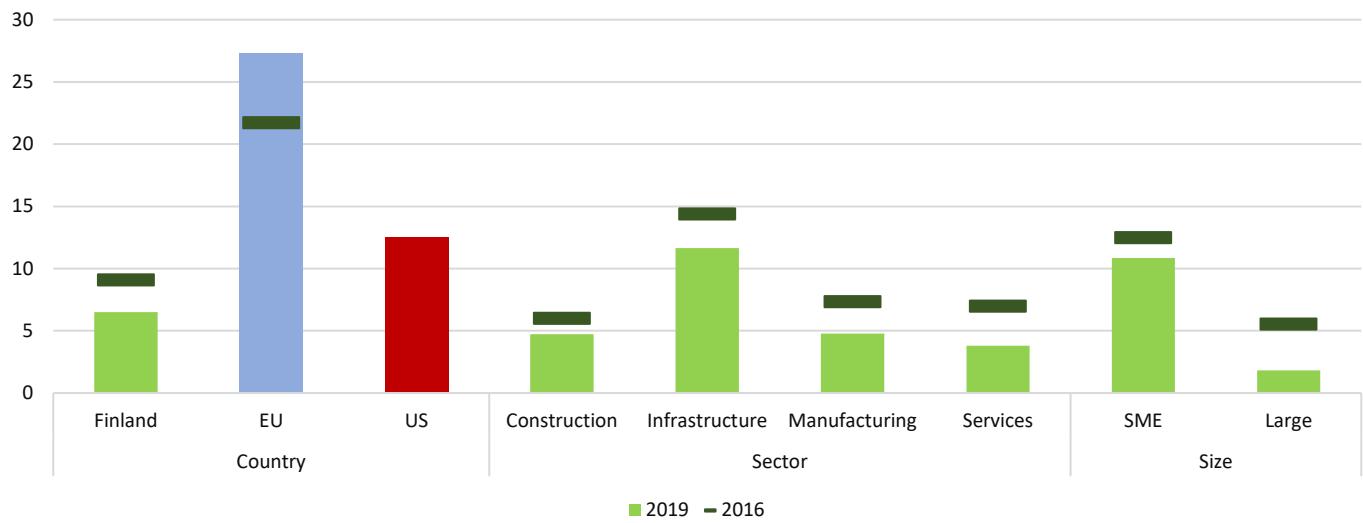
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 4 | 10 | 37 | 24 | 11 |
| Large | | 3 | 31 | 9 | 12 |
| SME | 7 | 16 | 42 | 39 | 10 |
| Services | 9 | 7 | 47 | 36 | 9 |
| Manufacturing | 9 | 11 | 25 | 24 | 11 |
| Infrastructure | 9 | 28 | 40 | 32 | 13 |
| Construction | 5 | 12 | 52 | 52 | 17 |
| Energy Intensive | 14 | 29 | 33 | 37 | 13 |
| Non Energy Intensive | 5 | 8 | 44 | 35 | 15 |

● Invested also in EE ● Invested but not in EE

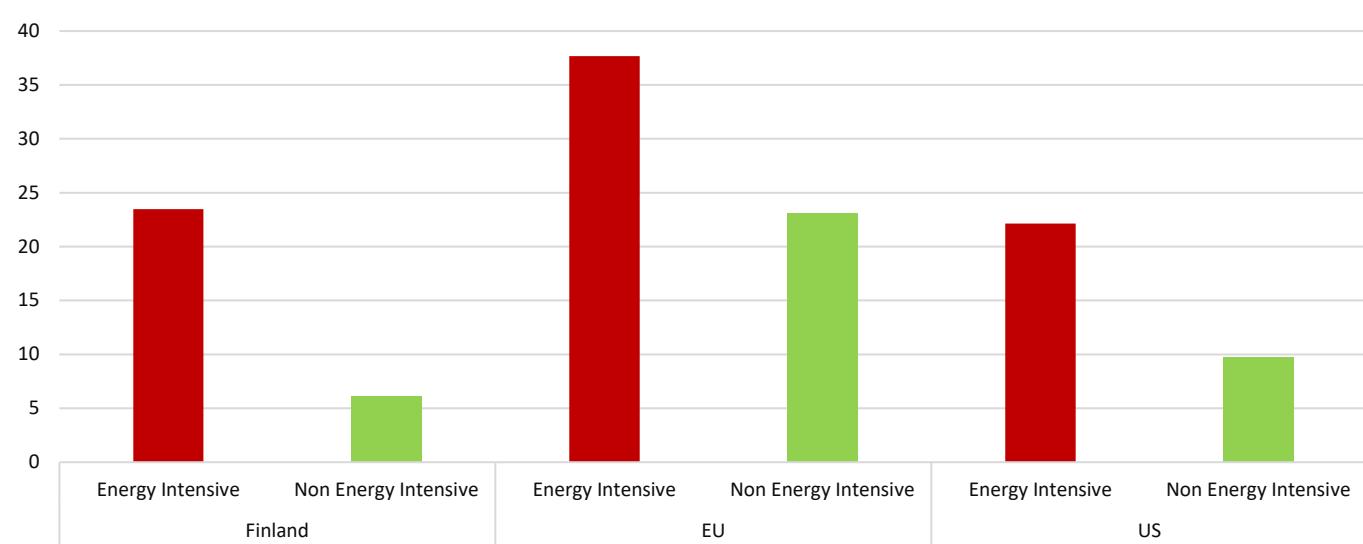
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

FINLAND – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



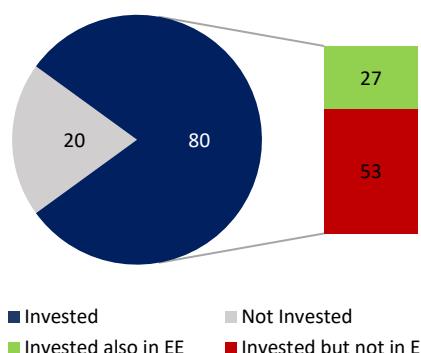
FRANCE – ENERGY EFFICIENCY

Summary

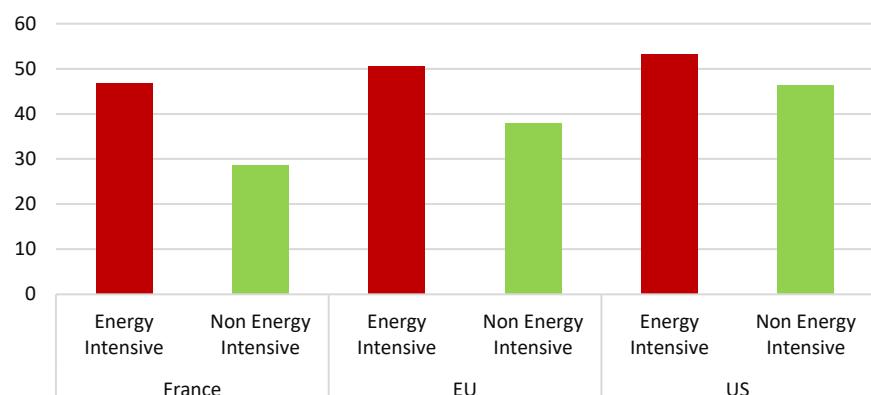
- A third* of firms that invest in France, also **invest in EE** (27% of all firms). This share jumps to 47% for the energy intensive sectors.
- Firms in France allocate *almost a tenth* of their total **investment in EE improvements**, less than the EU and the US average. This proportion is higher in the services sector and in energy intensive sectors such as infrastructure.
- Firms in France report *a fourth* of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and a third in the US.
- Half* of the firms surveyed in France with an **energy audit invest in EE improvements**.
- Two fifths* of the firms surveyed in France had an **energy audit** in the past three years, similar to the EU and compared to a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors, but also in the services sector.
- Firms in France are more likely to **invest in EE improvements when they implement advanced management practices**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



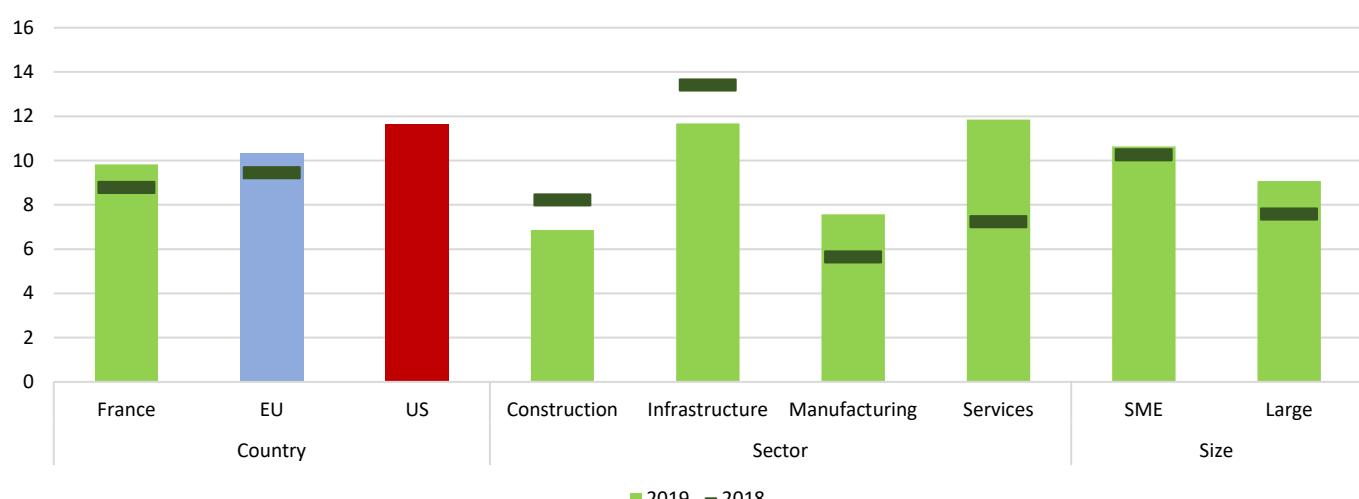
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

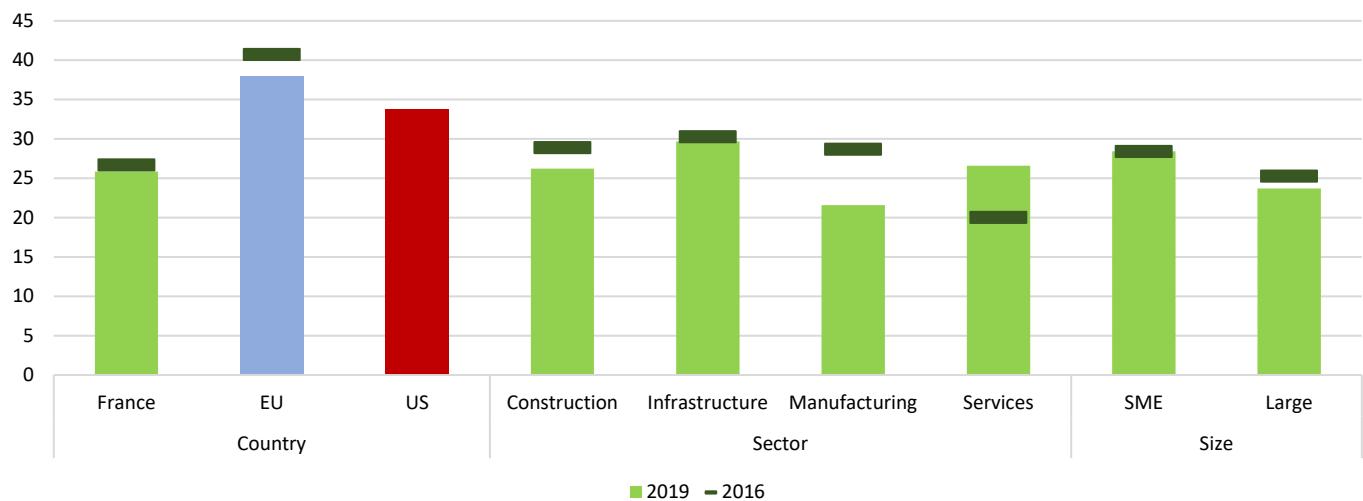


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

FRANCE – ENERGY EFFICIENCY

D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

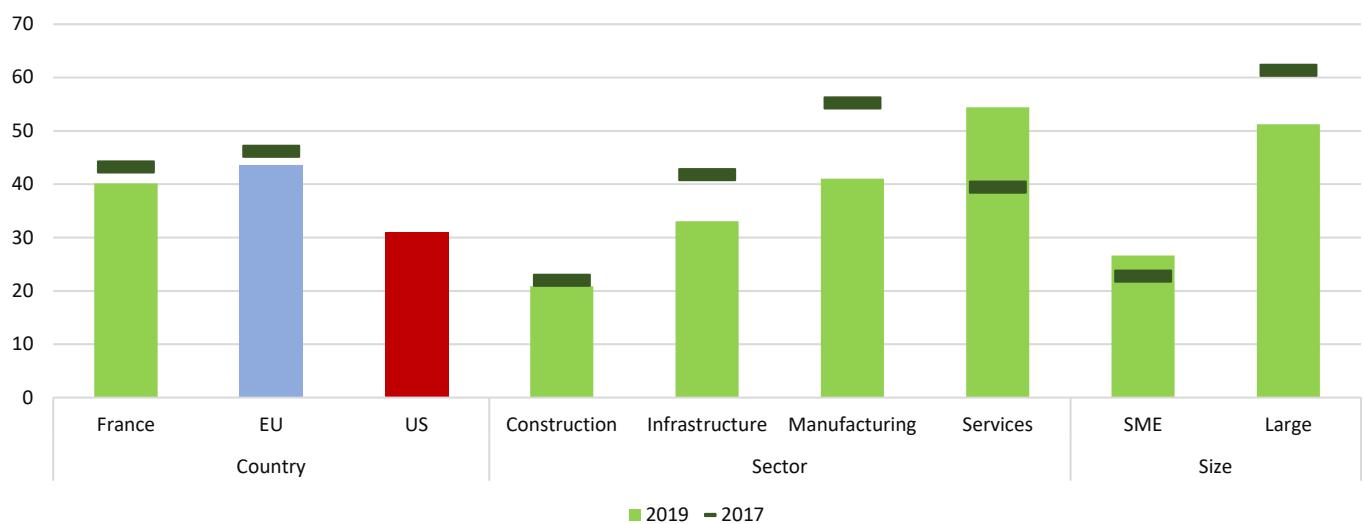
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

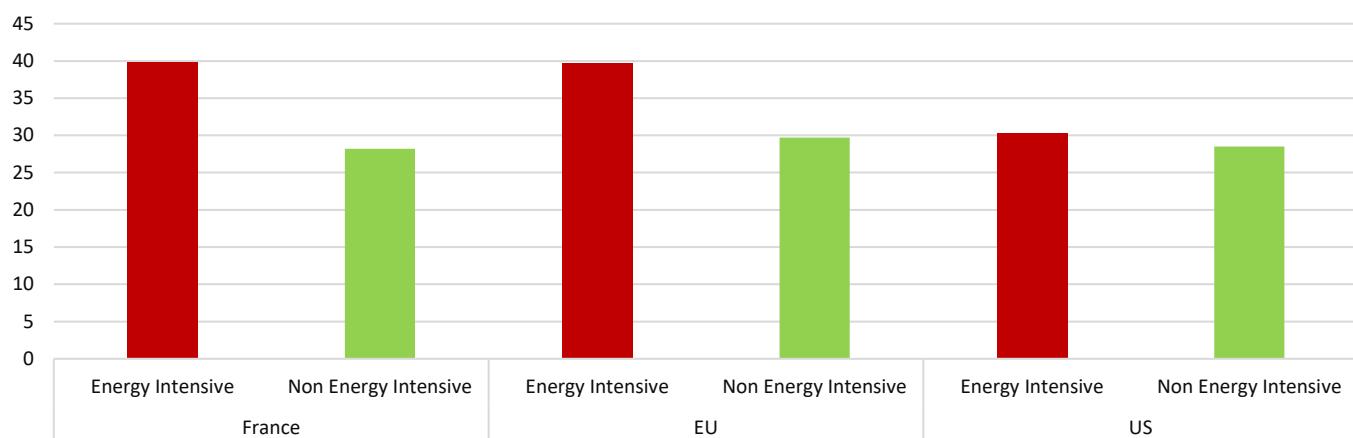
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

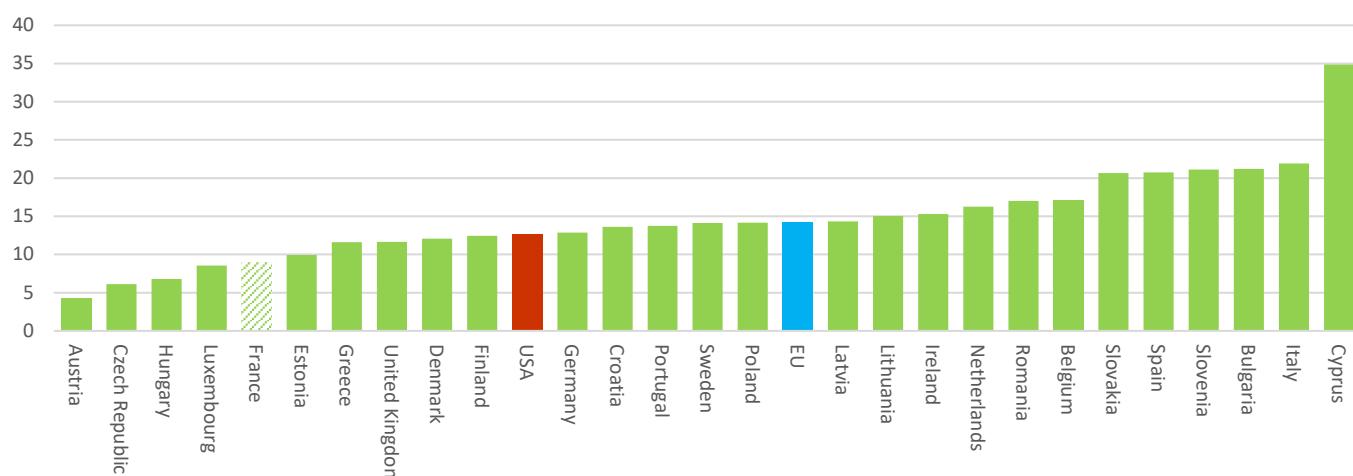
FRANCE – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

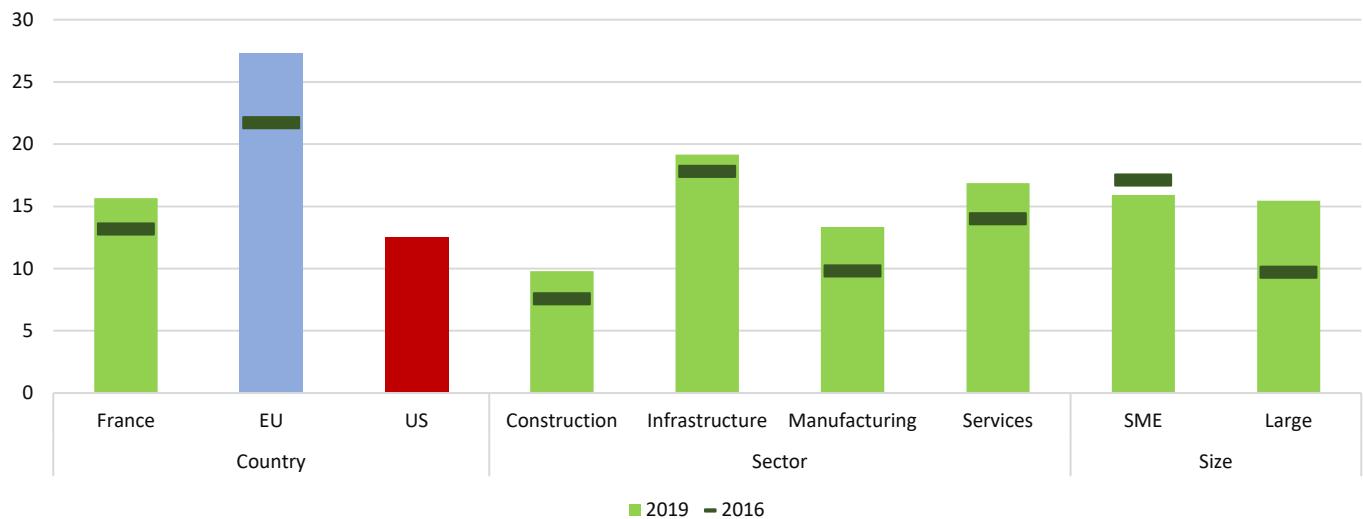
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 14 | 47 | 23 | 18 | 29 |
| Large | 13 | 41 | 19 | 19 | 25 |
| SME | 15 | 54 | 26 | 17 | 32 |
| Services | 17 | 44 | 36 | 20 | 41 |
| Manufacturing | 12 | 52 | 17 | 13 | 29 |
| Infrastructure | 13 | 46 | 25 | 21 | 26 |
| Construction | 17 | 67 | 26 | 17 | 29 |
| Energy Intensive | 23 | 48 | 21 | 21 | 35 |
| Non Energy Intensive | 12 | 52 | 26 | 16 | 29 |

● Invested also in EE ● Invested but not in EE

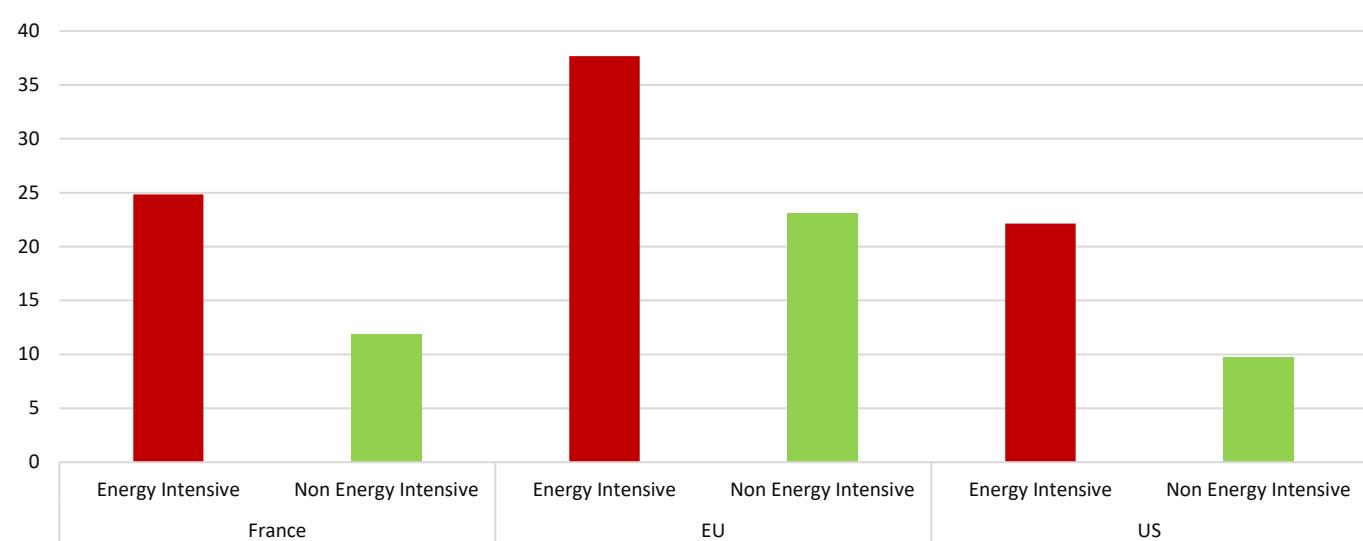
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

FRANCE – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



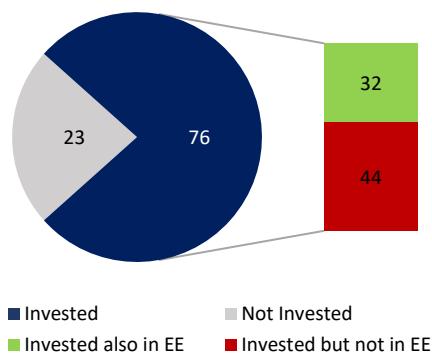
GERMANY – ENERGY EFFICIENCY

Summary

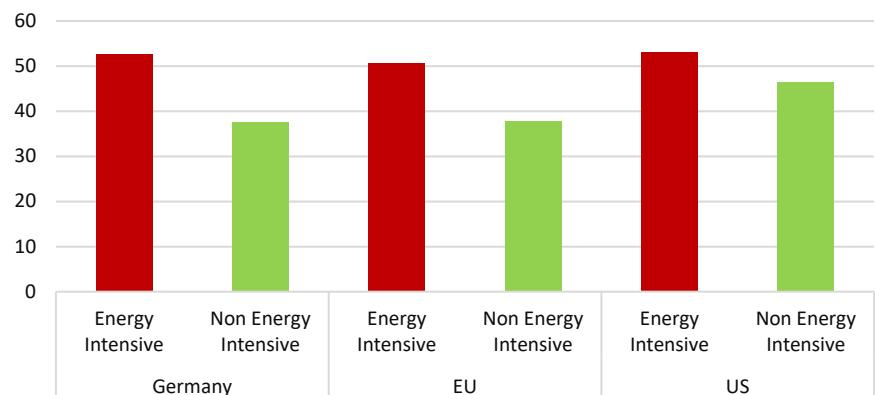
- *Two fifths* of firms that invest in Germany, also **invest in EE** (32% of all firms). This share rises to 53% for the energy intensive sectors.
- Firms in Germany allocate **almost 12% of their total investment in EE improvements**, more than the EU and similar to the US average. This proportion is higher in energy intensive sectors such as manufacturing and infrastructure.
- Firms in Germany report **nearly half** of their **building stock to be of high or highest energy efficiency (EE) standards**, a share significantly above that of EU and US counterparts (two fifths and a third, respectively).
- **More than 60%** of firms surveyed in Germany with an **energy audit invest in EE improvements**.
- **Half** of the firms surveyed in Germany had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Germany are more likely to **invest in EE improvements when they implement advanced management practices**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



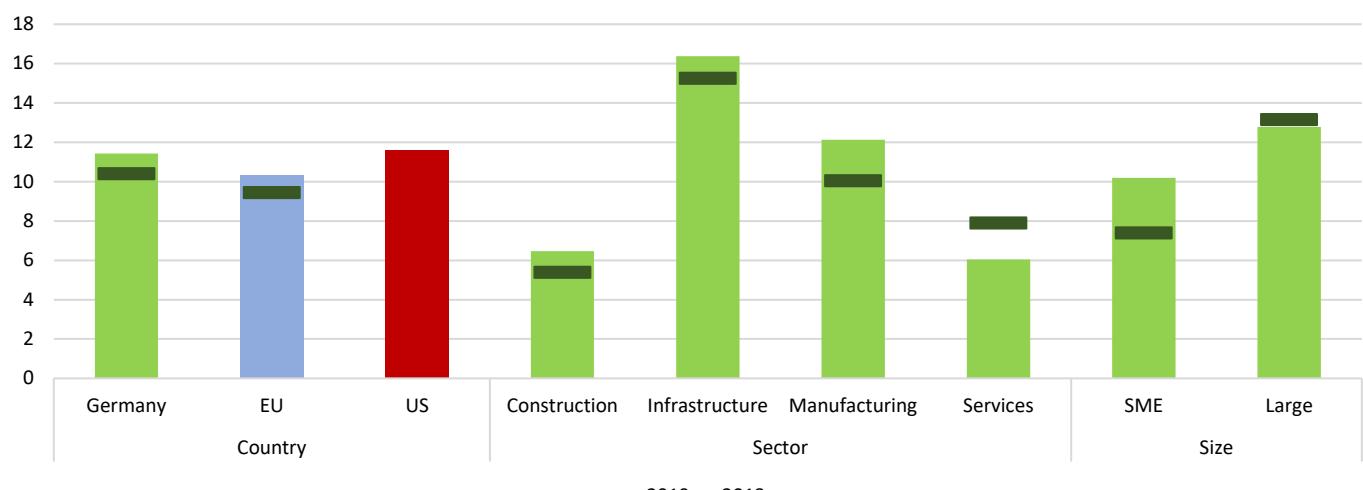
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

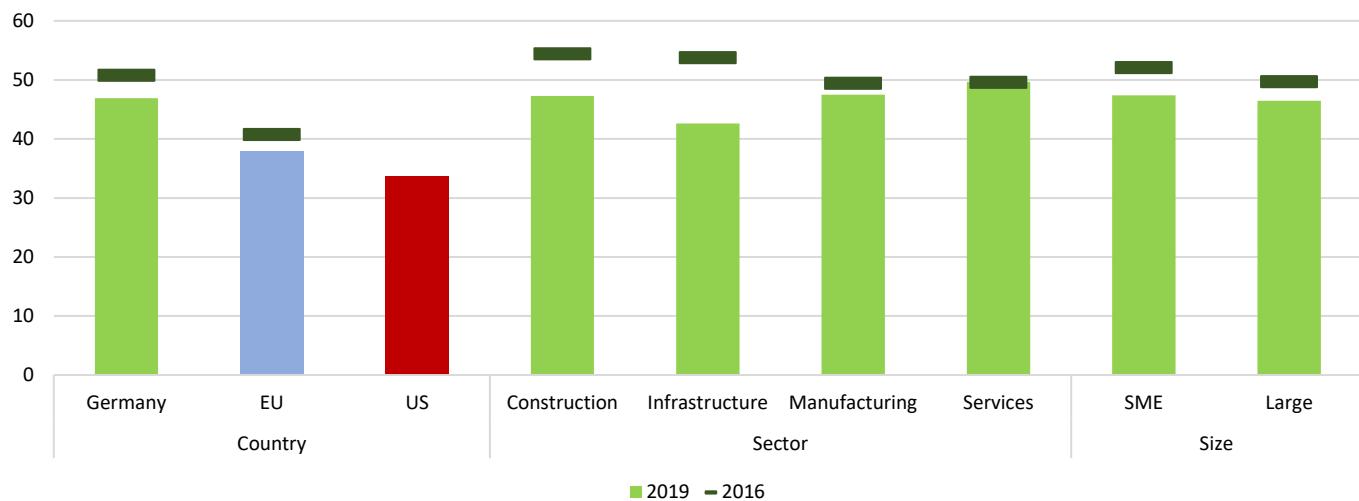


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

GERMANY – ENERGY EFFICIENCY

D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

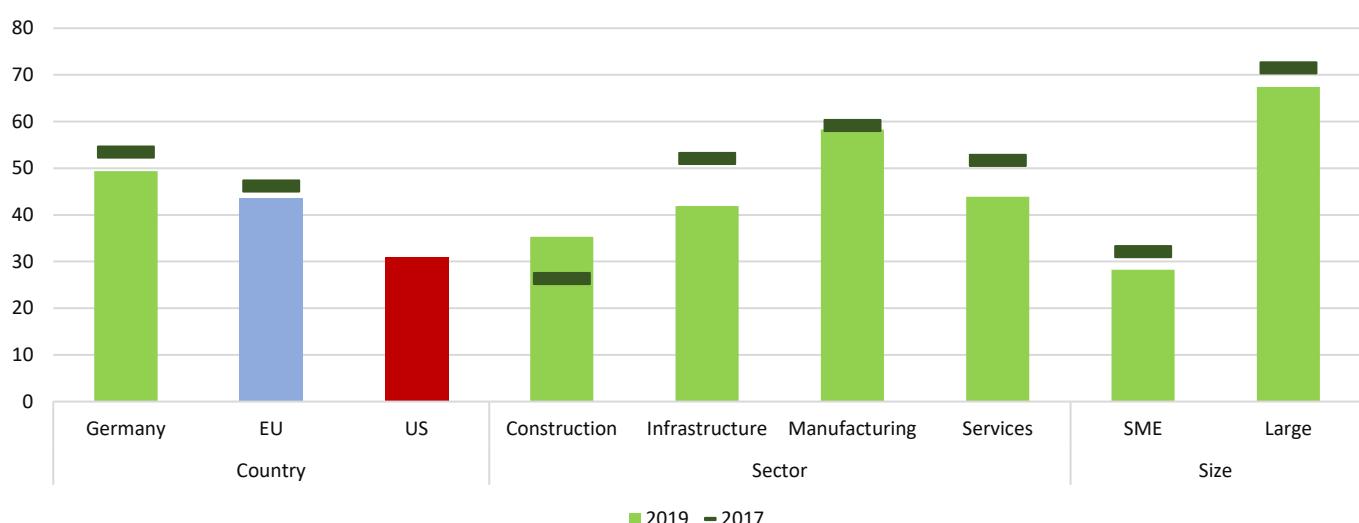
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

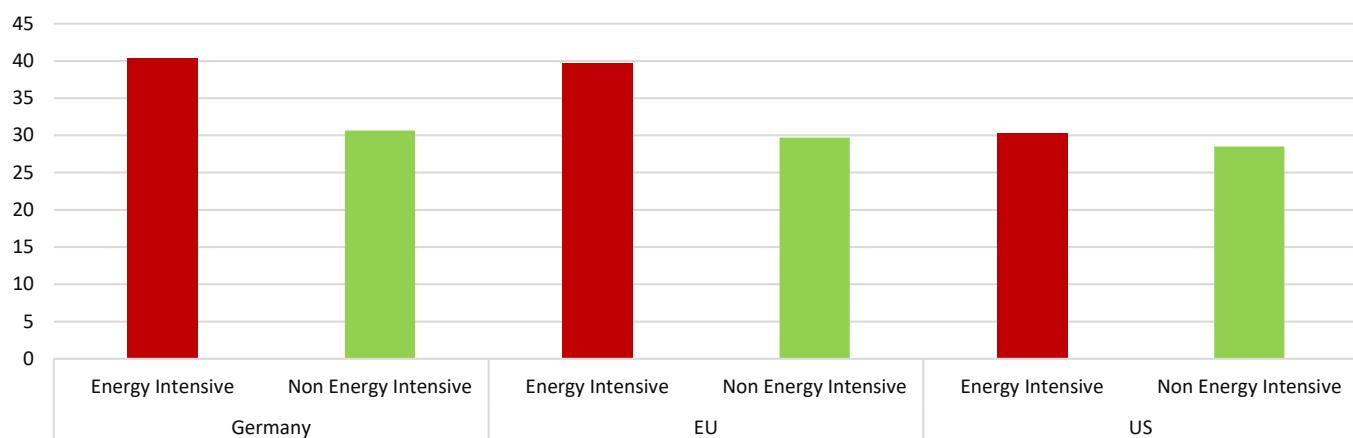
A1. Share of firms with an energy audit in the past three years (%)



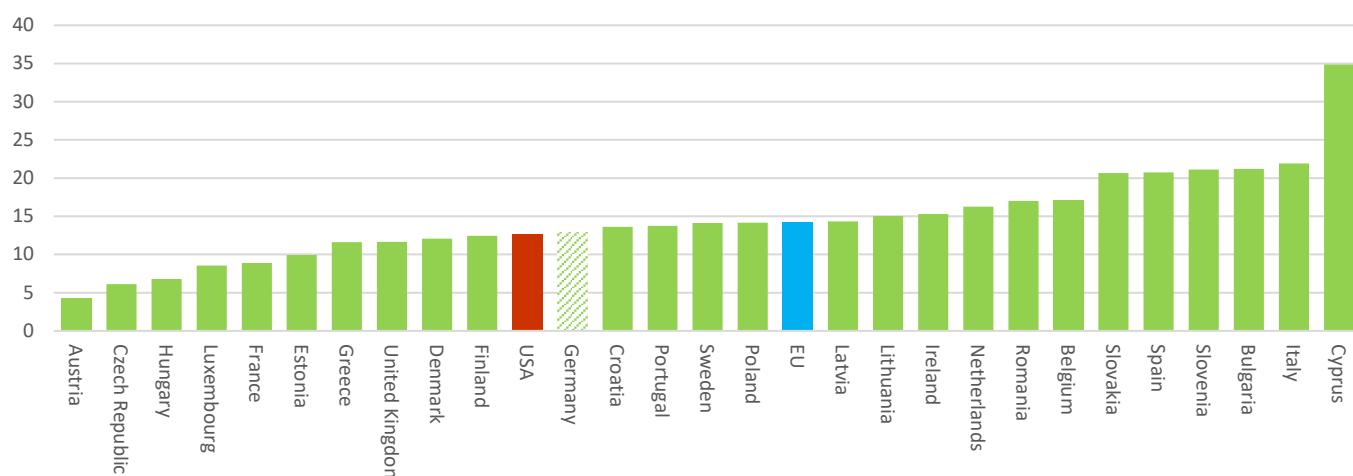
Base: All firms (data not shown for those who said no/don't know/refused)

GERMANY – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



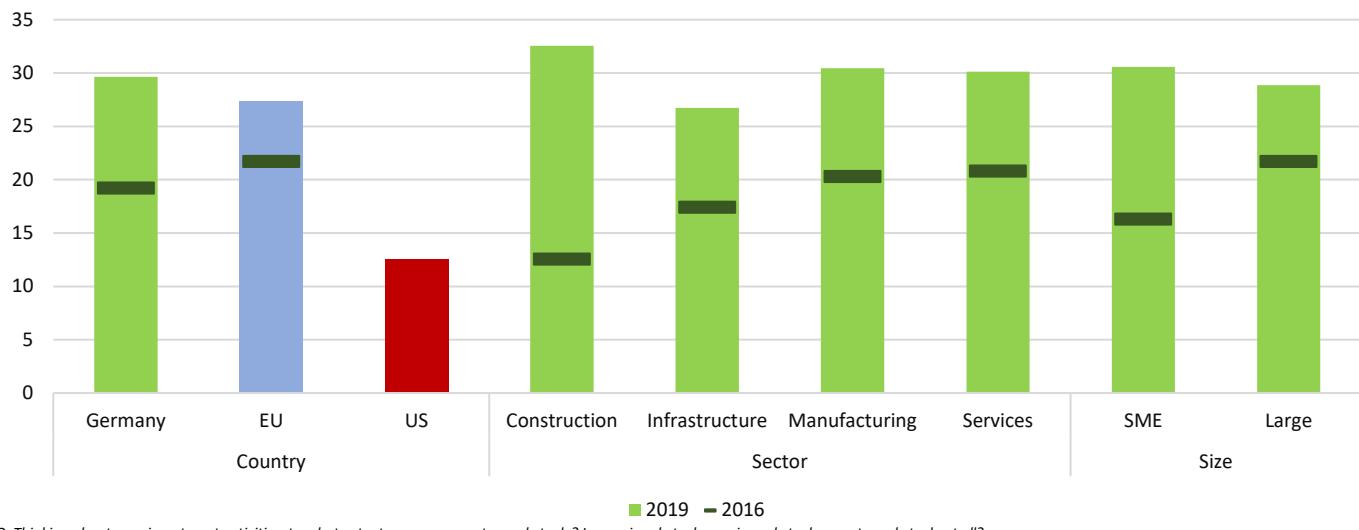
C. Long term barriers to investment



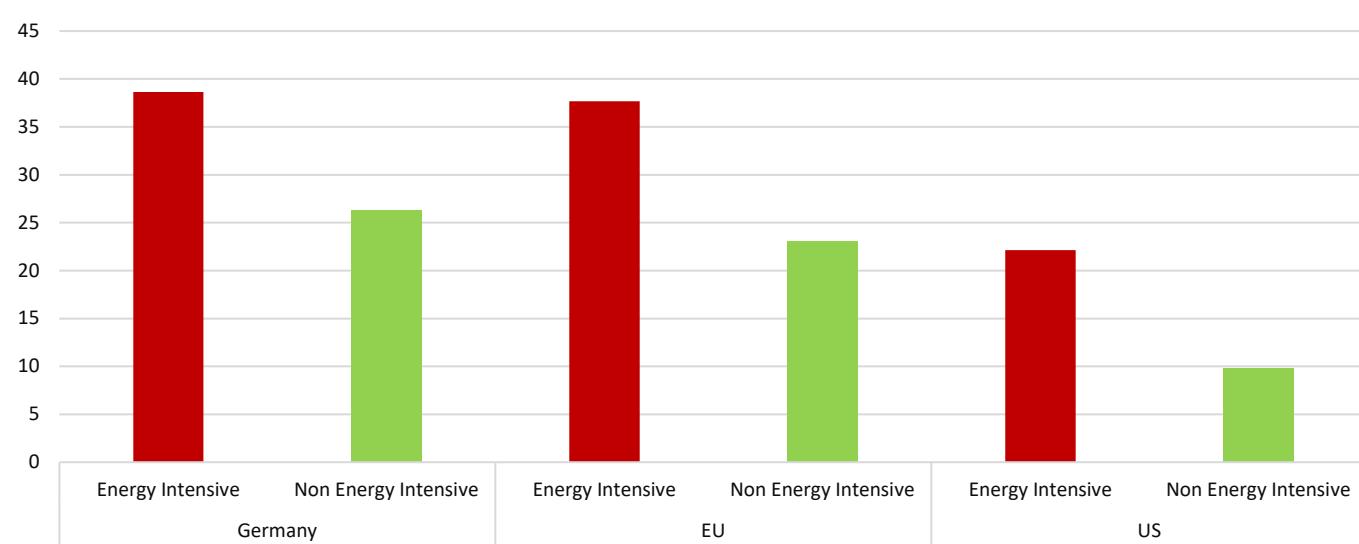
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

GERMANY – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



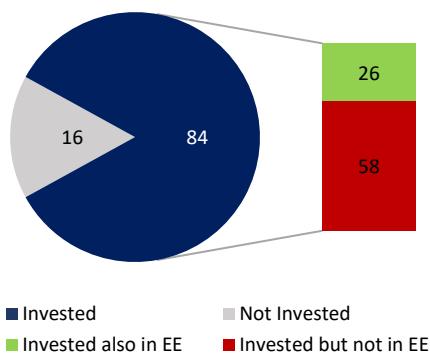
GREECE – ENERGY EFFICIENCY

Summary

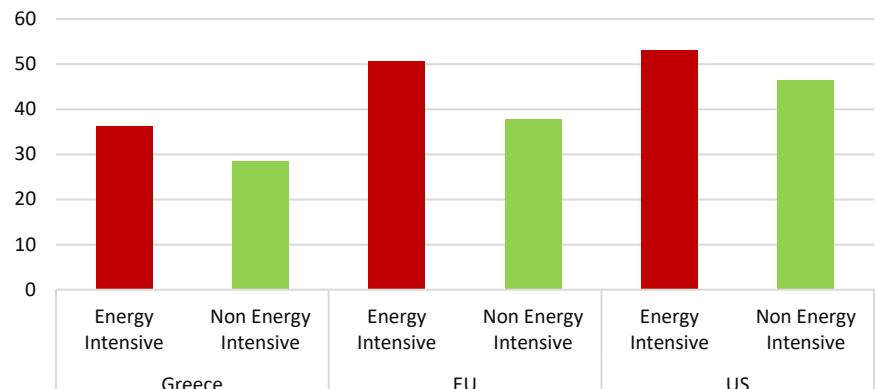
- A third of firms that invest in Greece, also **invest in EE** (26% of all firms).
- Firms in Greece allocate **almost a tenth of their total investment in EE improvements**, less than the EU and the US average. This proportion is higher in energy intensive sectors such as infrastructure.
- Firms in Greece report almost 60% of their **building stock to be of high or highest energy efficiency (EE) standards**, a share significantly above that of EU and US counterparts (two fifths and a third, respectively).
- Less than half** of the firms surveyed in Greece with an **energy audit invest in EE improvements**.
- Two fifths** of the firms surveyed in Greece had an **energy audit** in the past three years, similar to the EU and compared to a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Greece are more likely to **invest in EE improvements when they implement advanced management practices**.
- Firms that are more affected by energy costs are more likely to invest in EE improvements.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



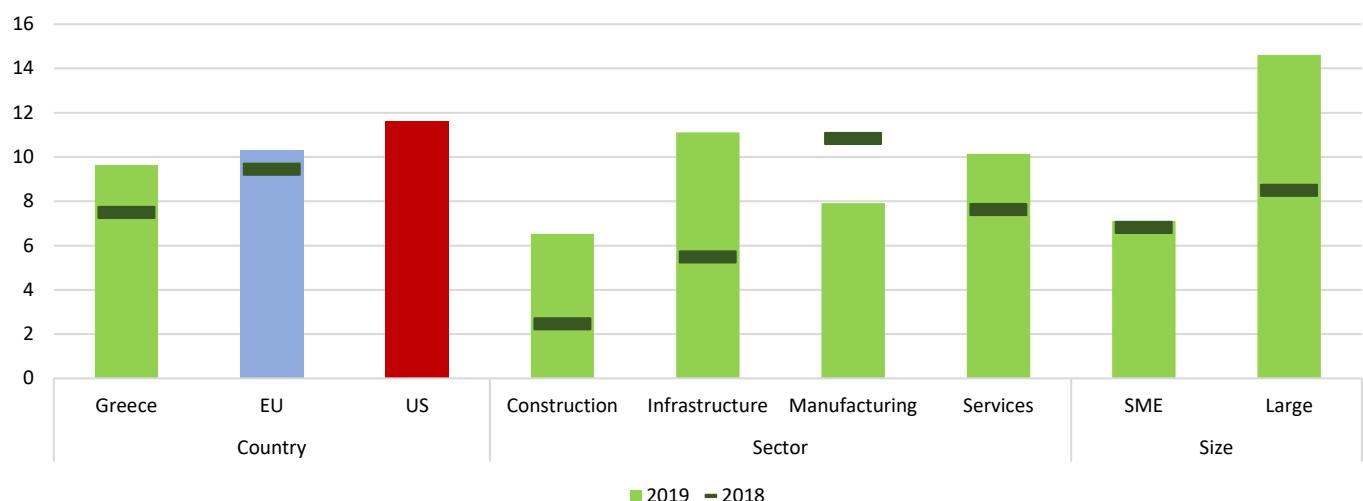
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

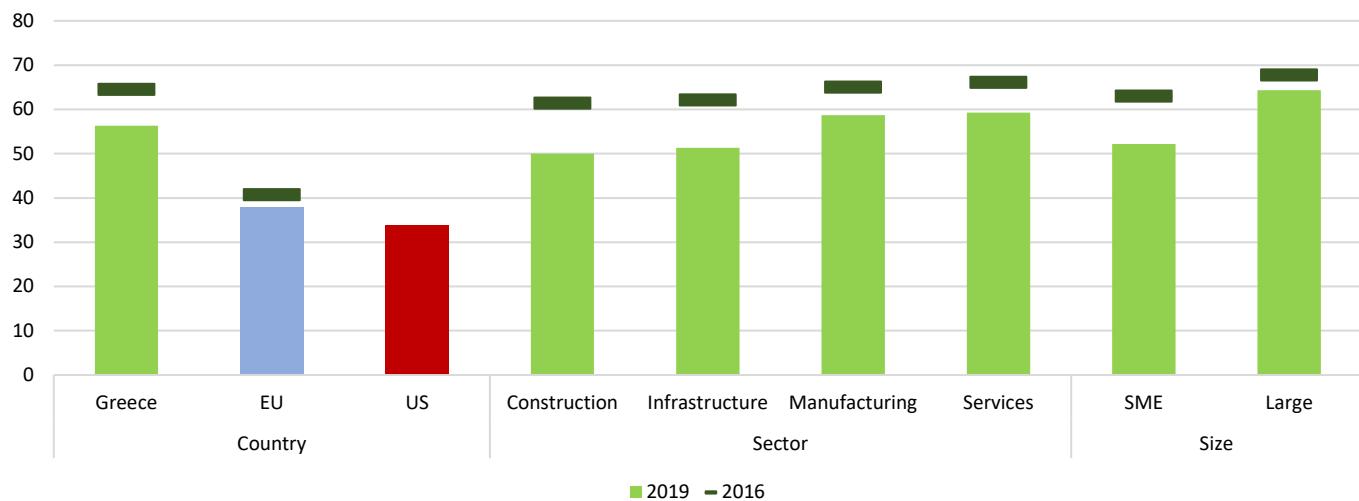


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

GREECE – ENERGY EFFICIENCY

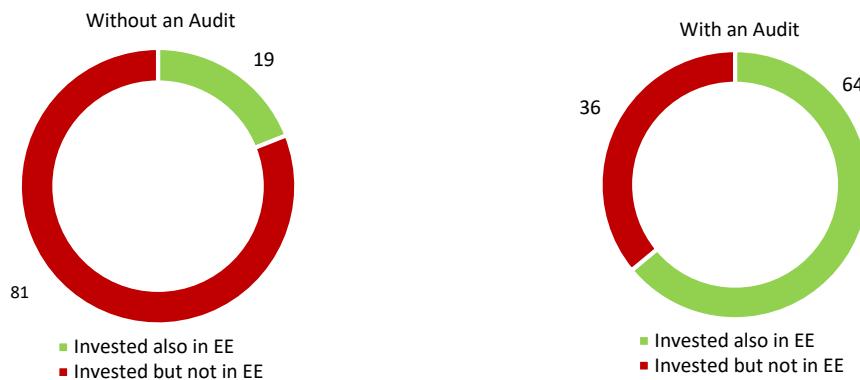
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

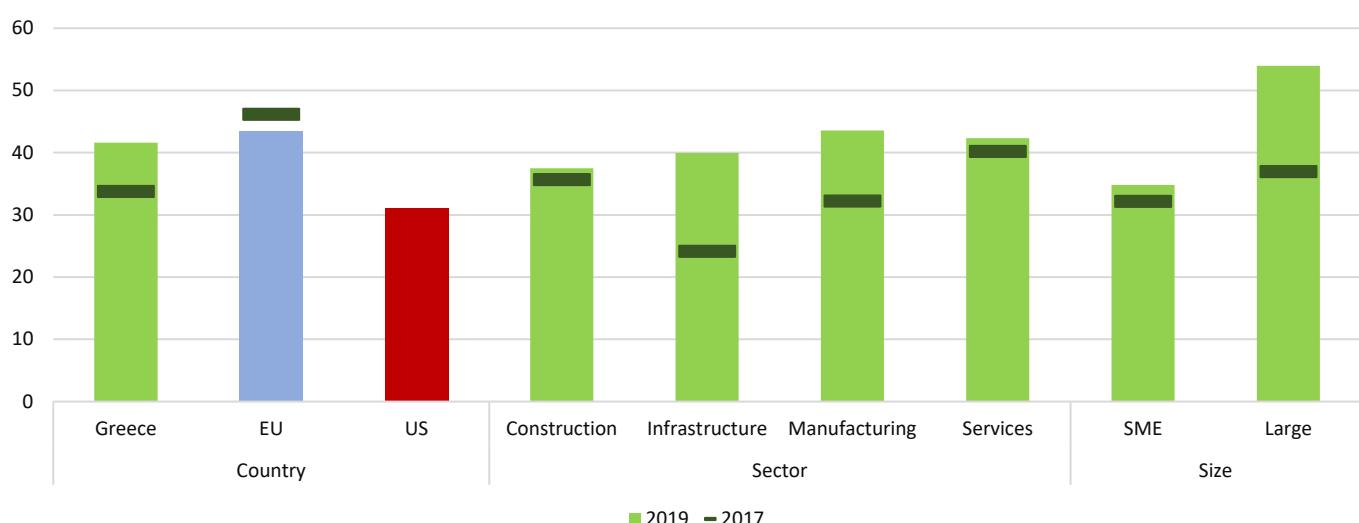
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

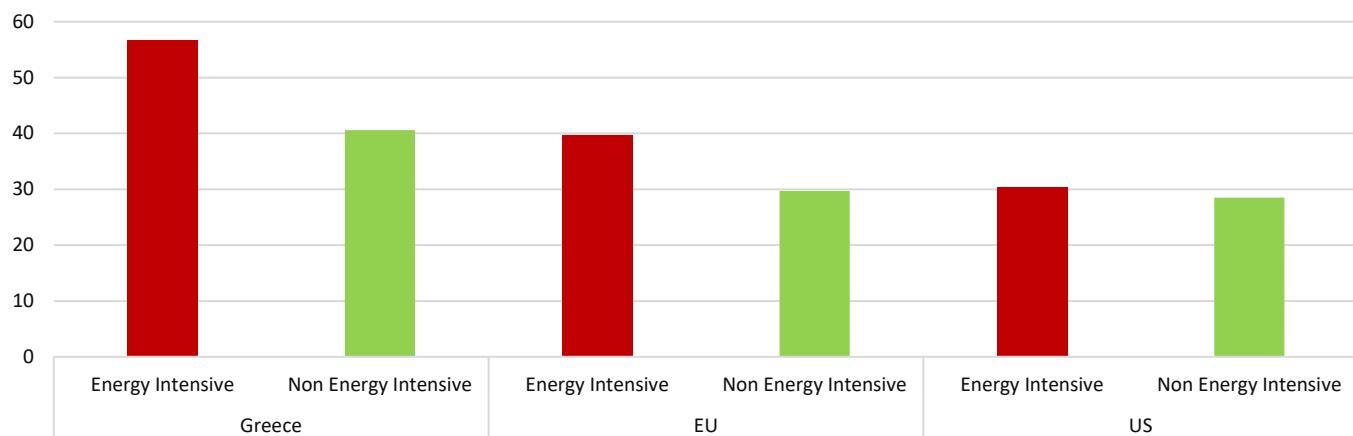
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

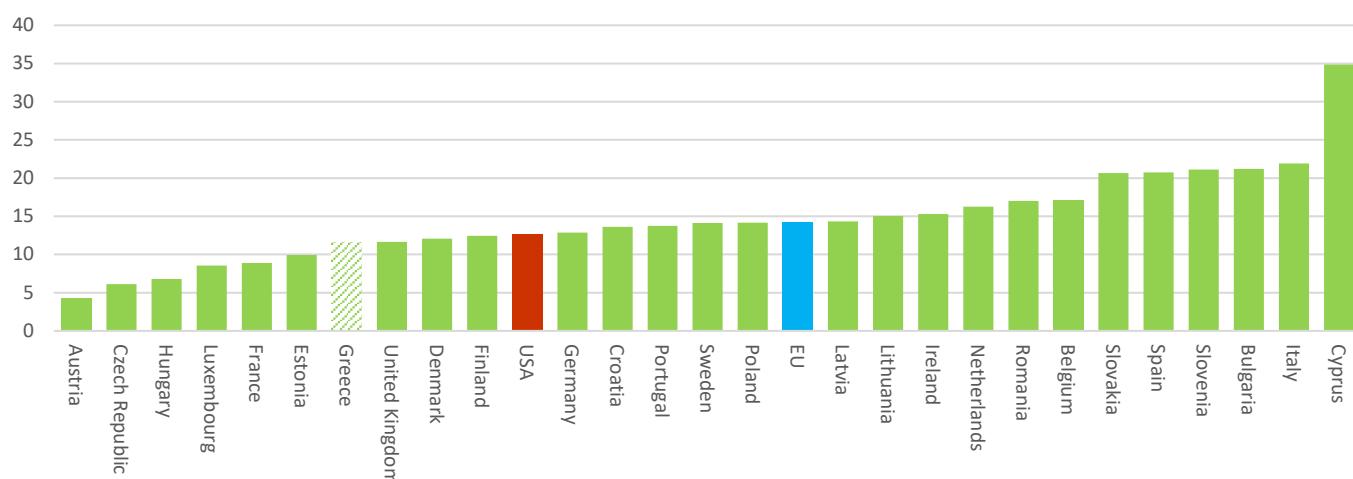
GREECE – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

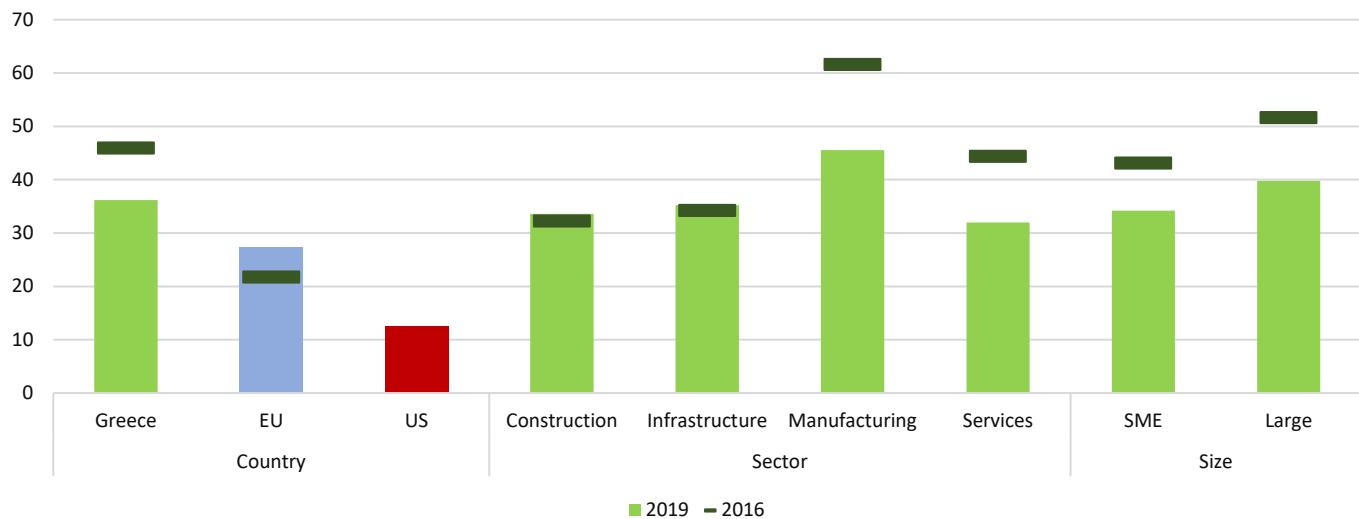
C. Long term barriers to investment



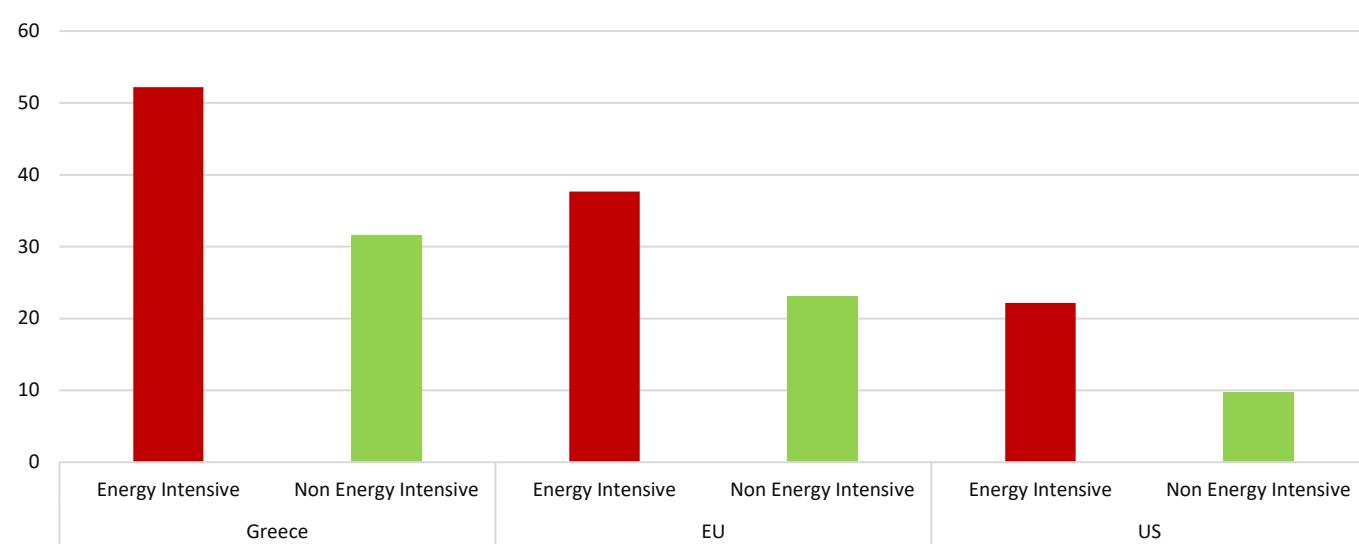
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

GREECE – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity

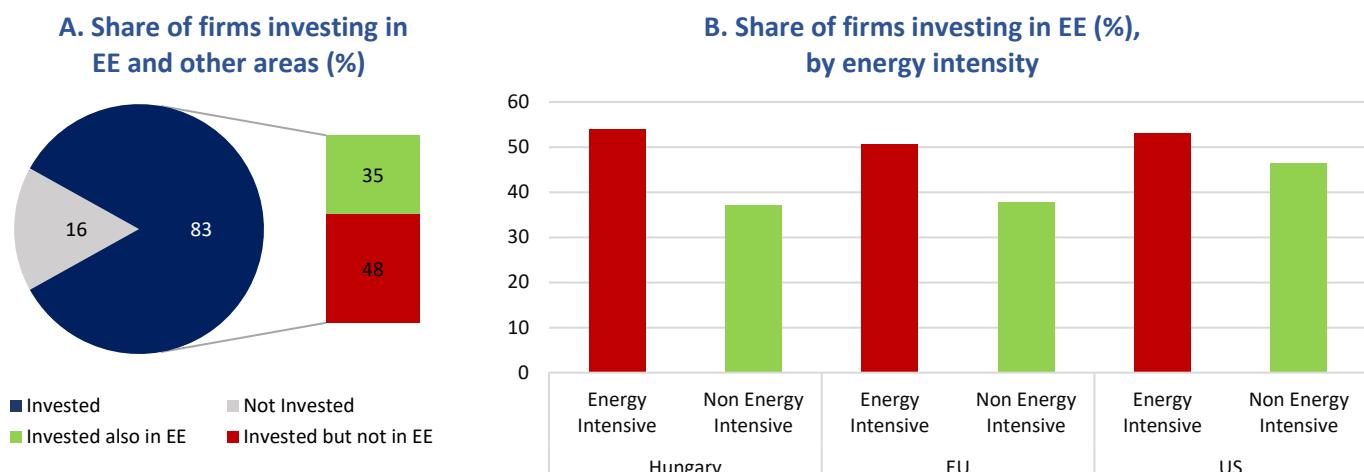


HUNGARY – ENERGY EFFICIENCY

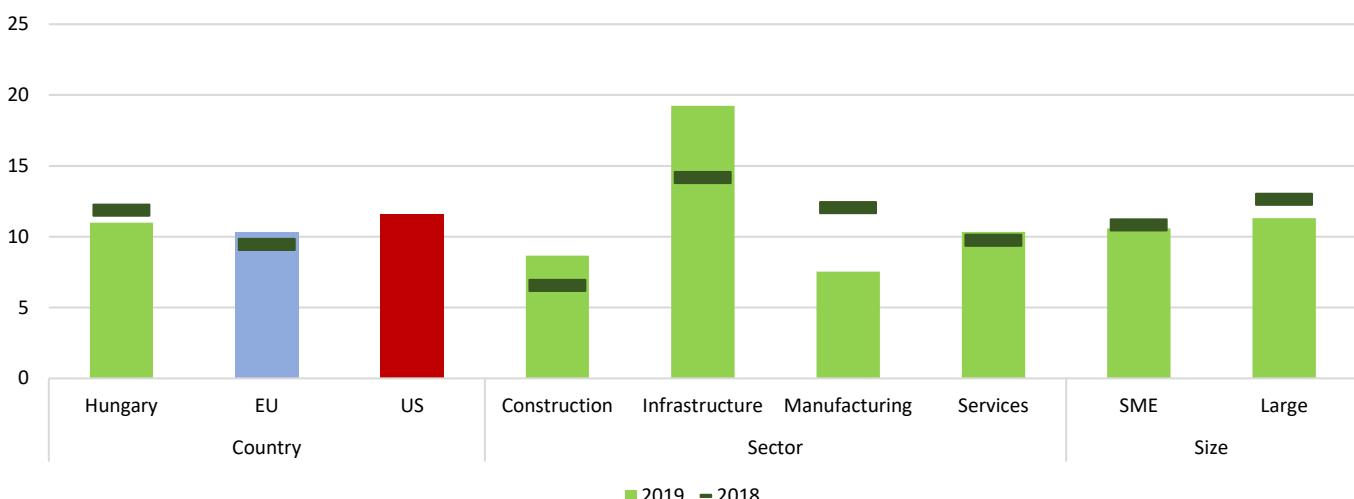
Summary

- *Two fifths* of firms that invest in Hungary, also **invest in EE** (35% of all firms). This share jumps to 54% for the energy intensive sectors.
- Firms in Hungary allocate **more than a tenth of their total investment in EE improvements**, similar to the EU and the US average. This proportion is higher in energy intensive sectors such as infrastructure.
- Firms in Hungary report *almost two fifths* of their **building stock to be of high or highest energy efficiency (EE) standards**, similar to the EU and compared to a third in the US.
- *Two thirds* of the firms surveyed in Hungary with an **energy audit invest in EE improvements**.
- *More than half* of the firms surveyed in Hungary had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Hungary are *more likely* to **invest in EE improvements when they implement advanced management practices**.
- Firms that are *more affected by energy costs* are *more likely* to **invest in EE improvements**.

Energy efficiency (EE) investment

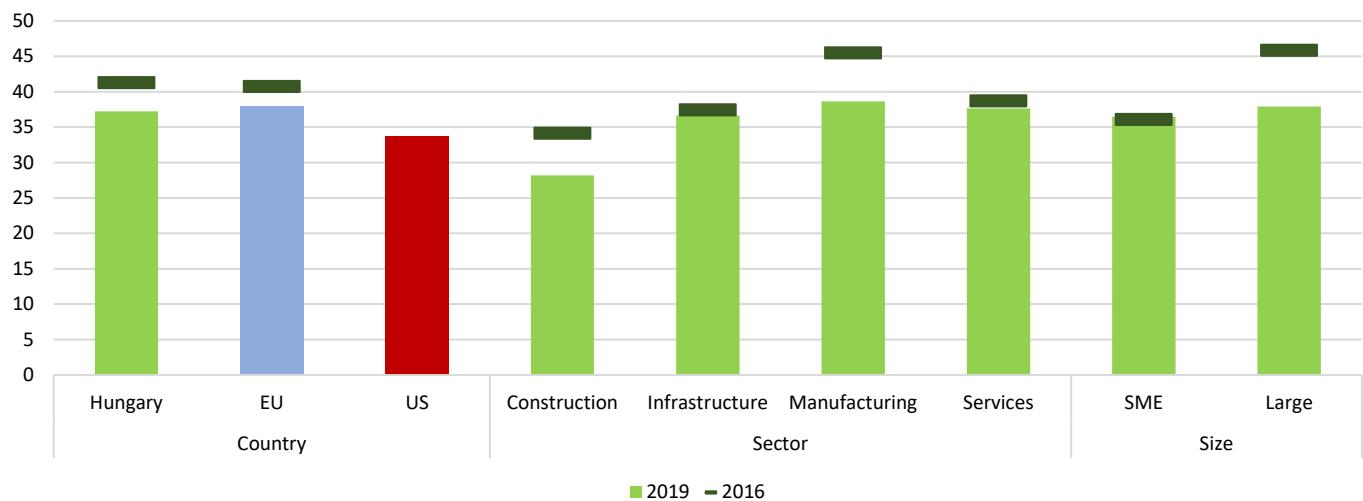


C. Proportion of firms' total investment for measures to improve EE (%)



HUNGARY – ENERGY EFFICIENCY

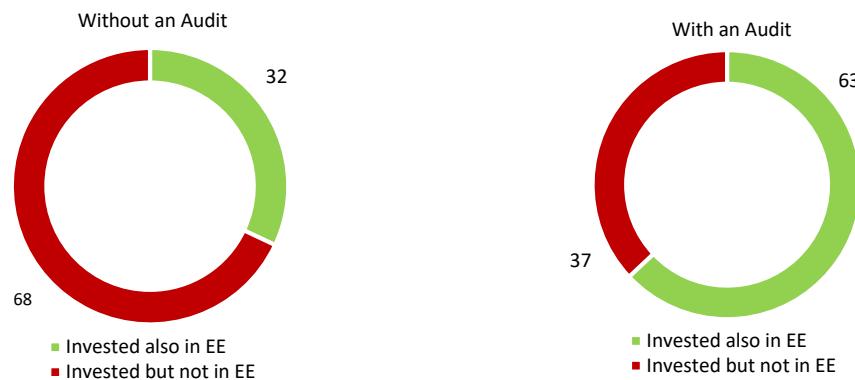
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

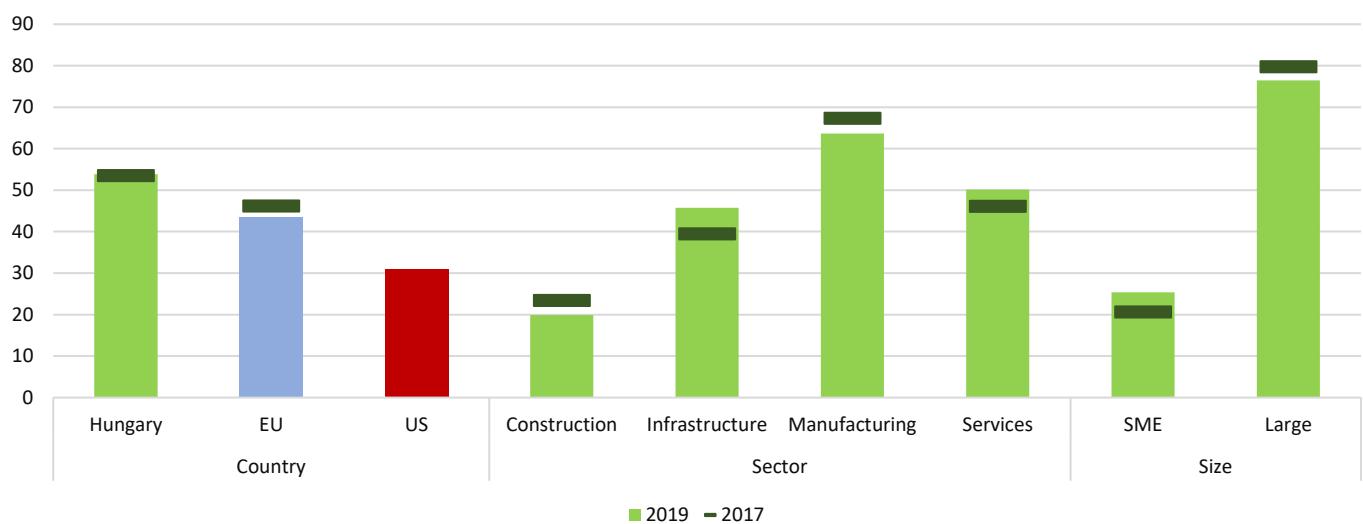
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

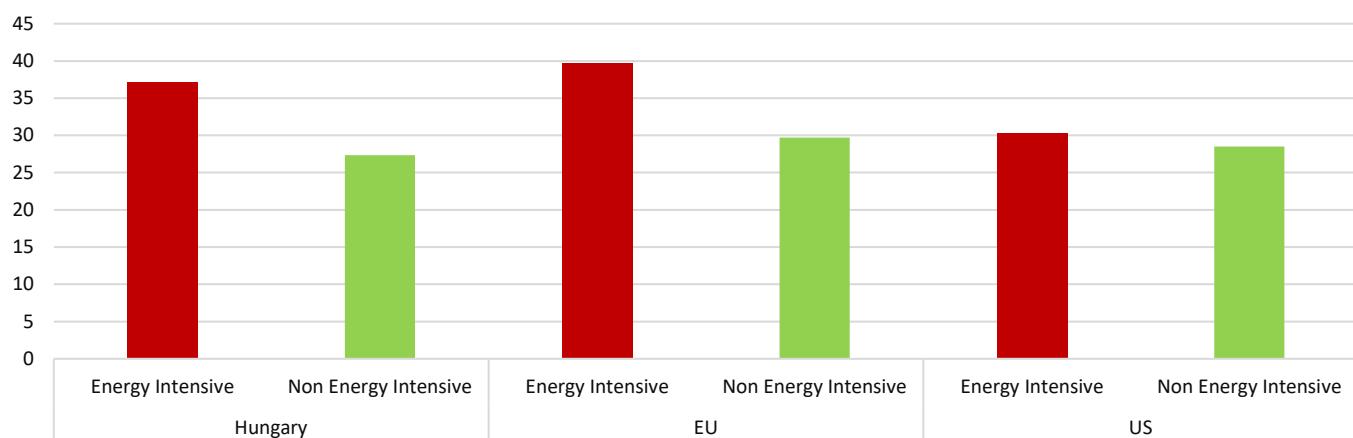
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

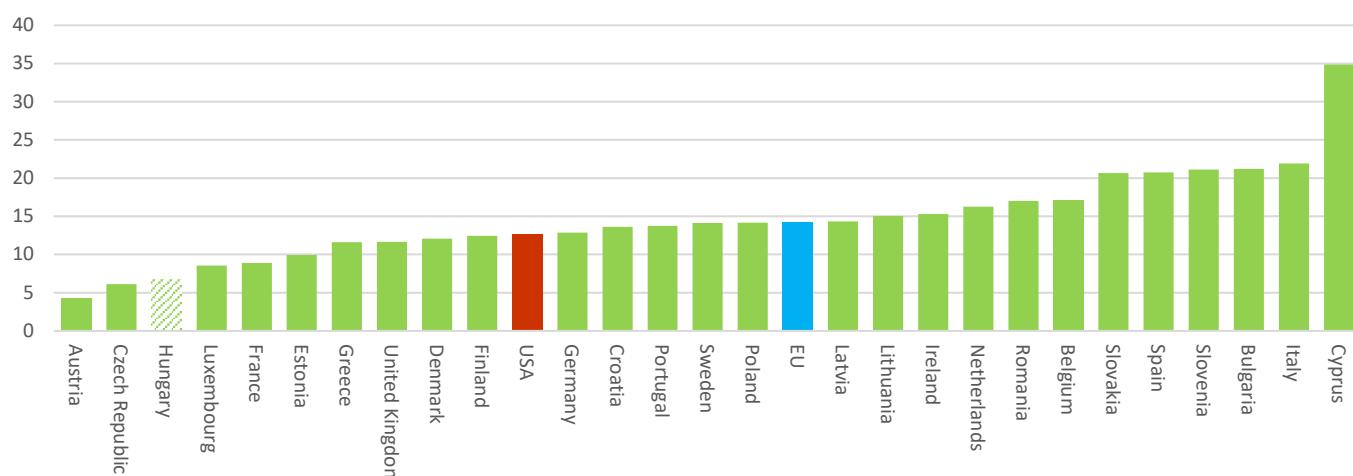
HUNGARY – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

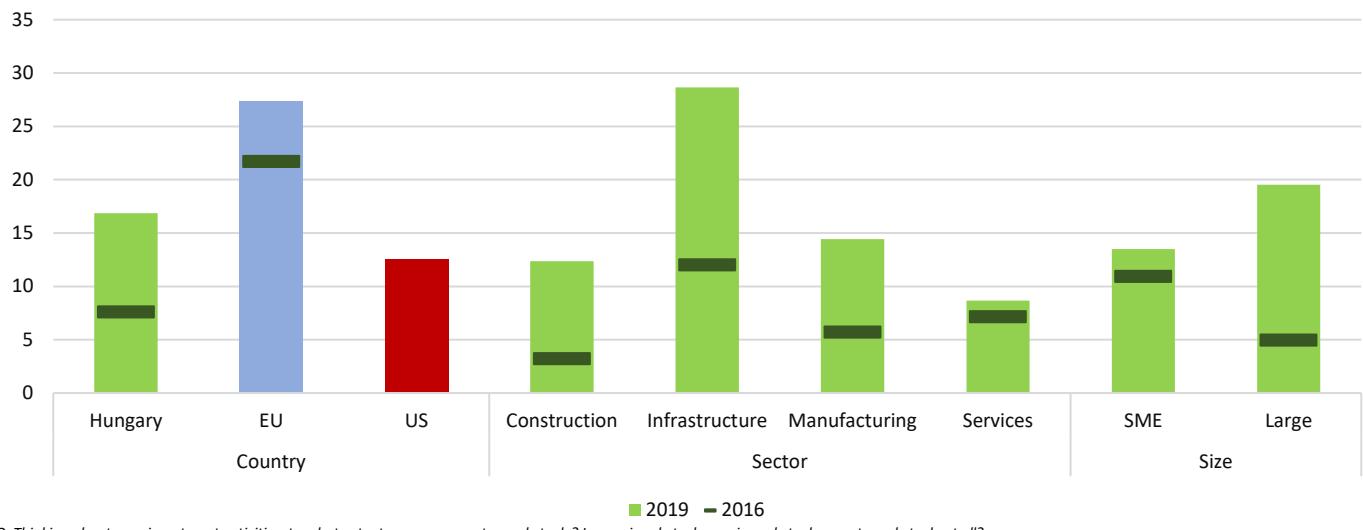
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 13 | 18 | 37 | 41 | 18 |
| Large | 17 | 22 | 33 | 48 | 17 |
| SME | 9 | 15 | 41 | 35 | 20 |
| Services | 8 | 18 | 37 | 33 | 18 |
| Manufacturing | 14 | 16 | 41 | 41 | 16 |
| Infrastructure | 13 | 23 | 35 | 40 | 15 |
| Construction | 4 | 8 | 46 | 35 | 13 |
| Energy Intensive | 11 | 25 | 34 | 31 | 18 |
| Non Energy Intensive | 9 | 13 | 43 | 41 | 21 |

● Invested also in EE ● Invested but not in EE

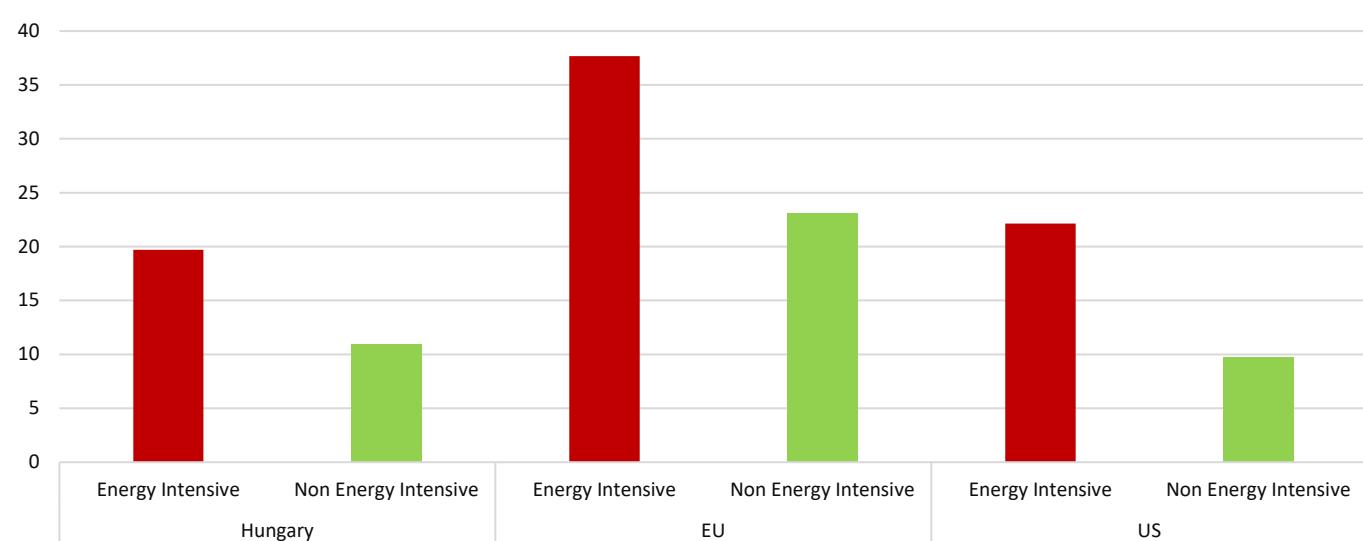
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

HUNGARY – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



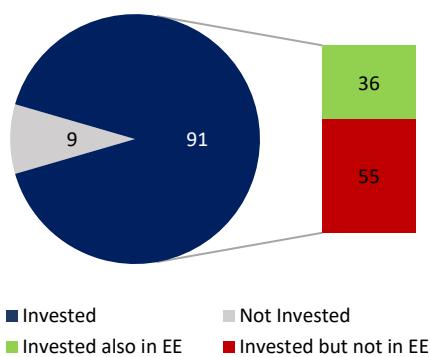
IRELAND – ENERGY EFFICIENCY

Summary

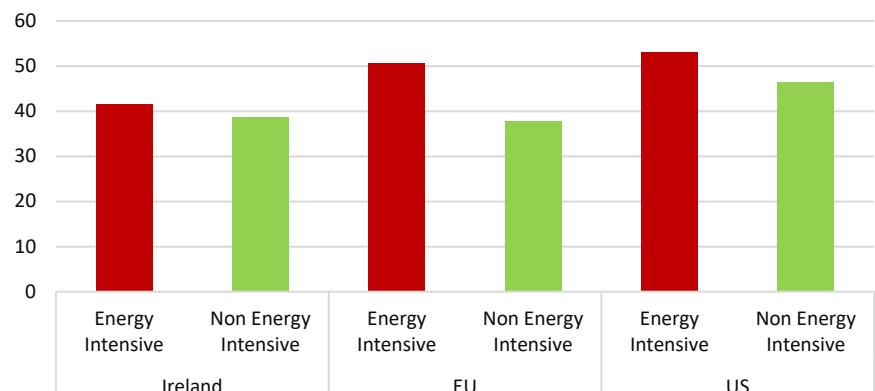
- *Two fifths* of firms that invest in Ireland, also **invest in EE** (36% of all firms).
- Firms in Ireland allocate **approximately 7% of their total investment in EE improvements**, less than the EU and the US average.
- Firms in Ireland report 35% of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and a third in the US.
- *More than half* of the firms surveyed in Ireland with an **energy audit invest in EE improvements**.
- *Roughly a third* of the firms surveyed in Ireland had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Ireland *are more likely to invest in EE improvements when they implement advanced management practices*.
- Firms that are *more affected by energy costs are more likely to invest in EE improvements*.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



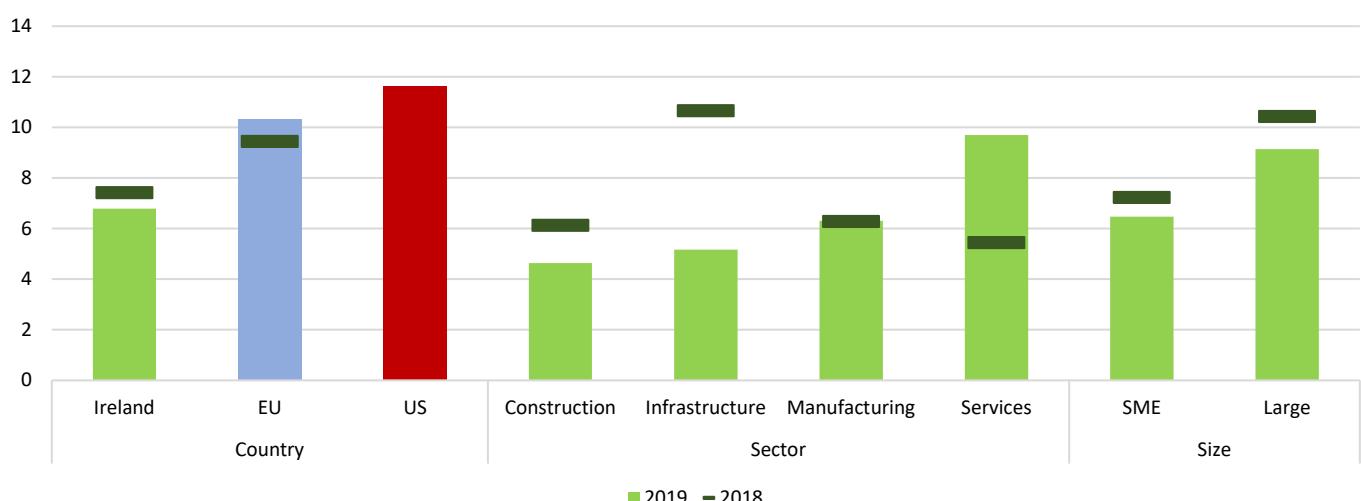
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

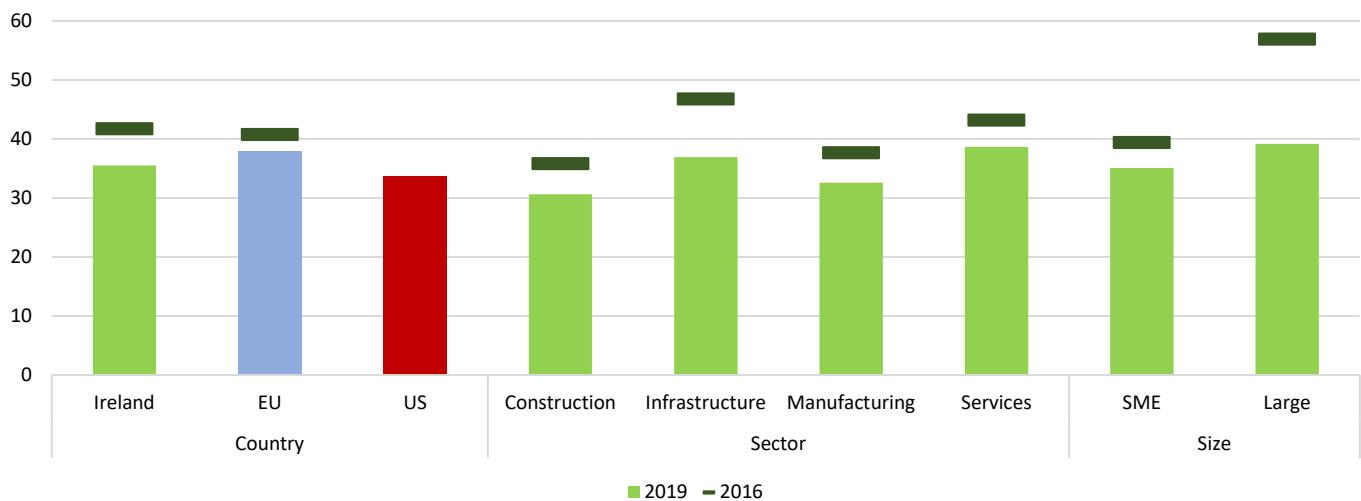


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

IRELAND – ENERGY EFFICIENCY

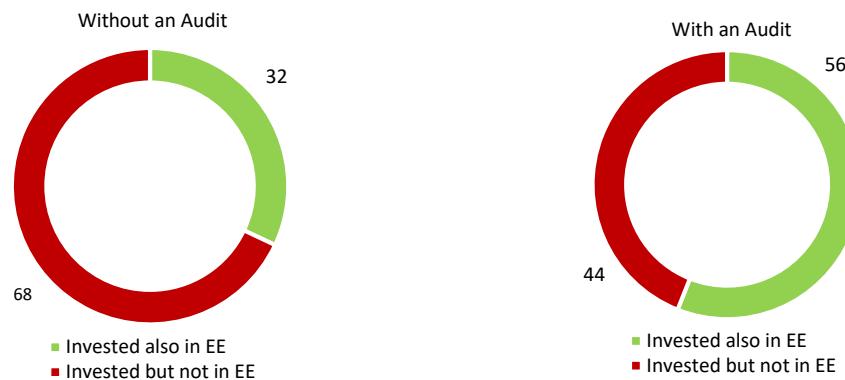
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

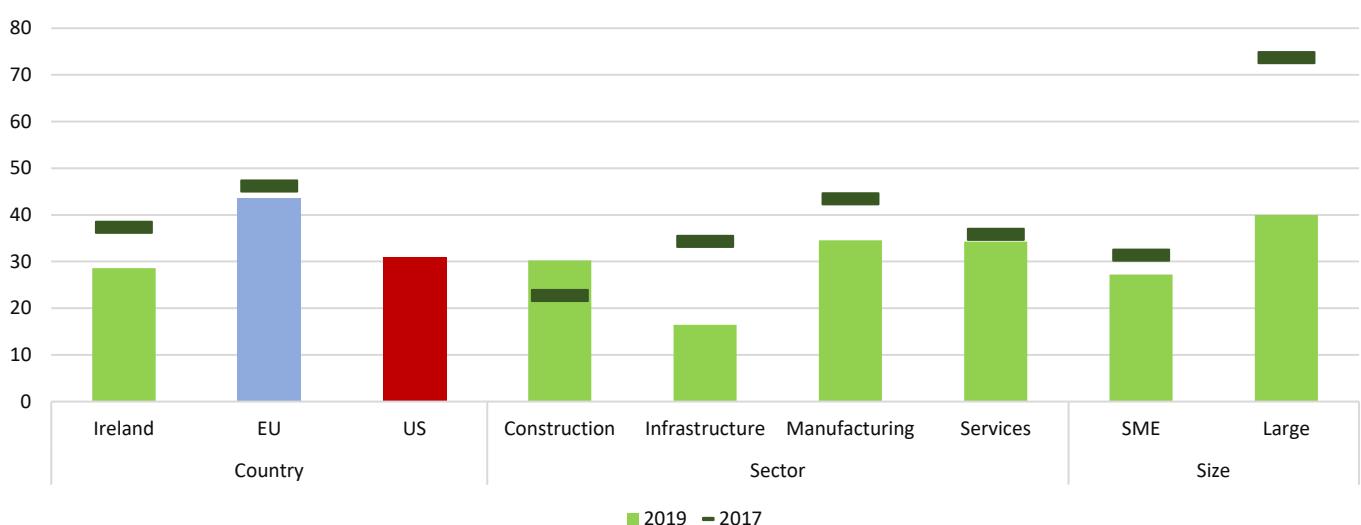
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

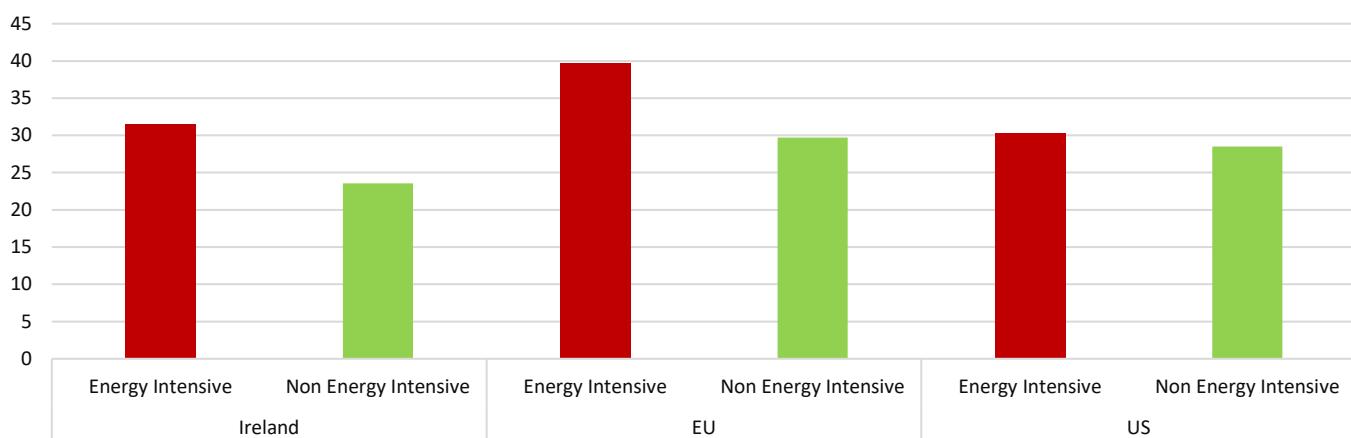
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

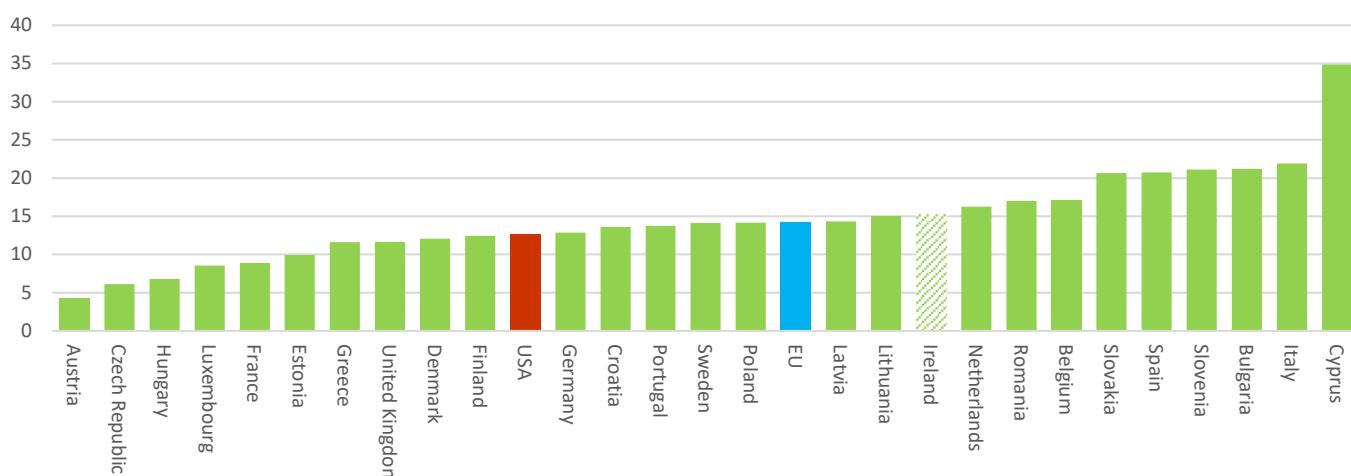
IRELAND – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

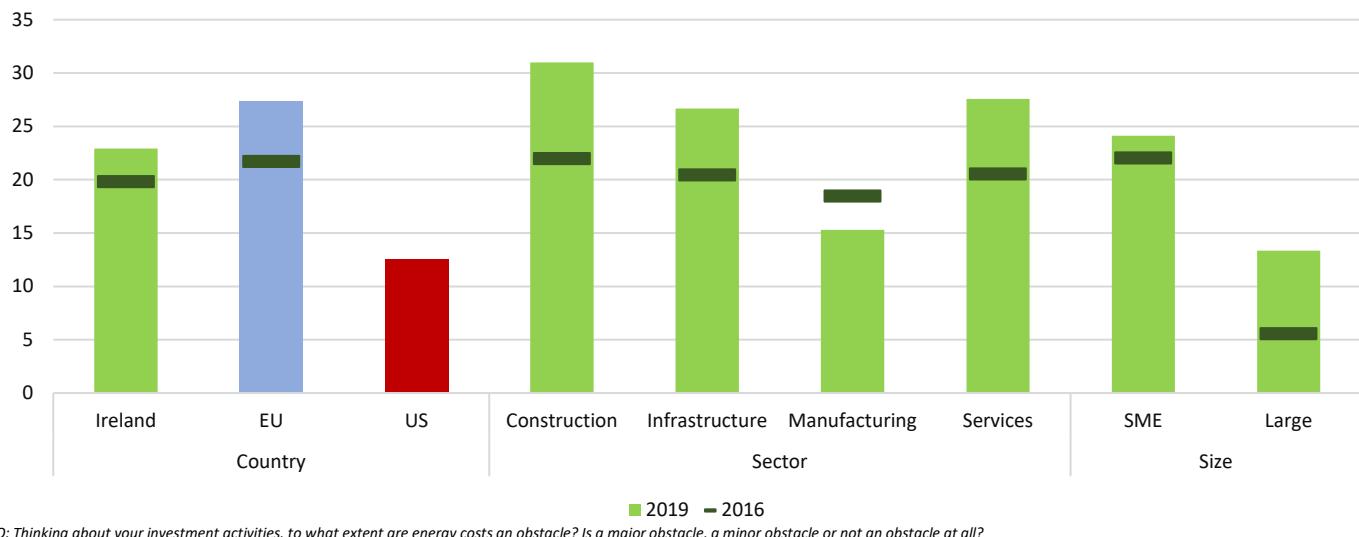
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 9 | 24 | 32 | 46 | 7 |
| Large | | 20 | 25 | 50 | 21 |
| SME | 17 | 29 | 39 | 43 | 13 |
| Services | 23 | 28 | 40 | 34 | 10 |
| Manufacturing | 12 | 23 | 28 | 40 | 15 |
| Infrastructure | 19 | 29 | 38 | 45 | 19 |
| Construction | 14 | 36 | 50 | 64 | 24 |
| Energy Intensive | 14 | 38 | 29 | 45 | 9 |
| Non Energy Intensive | 17 | 27 | 40 | 51 | 15 |

● Invested also in EE ● Invested but not in EE

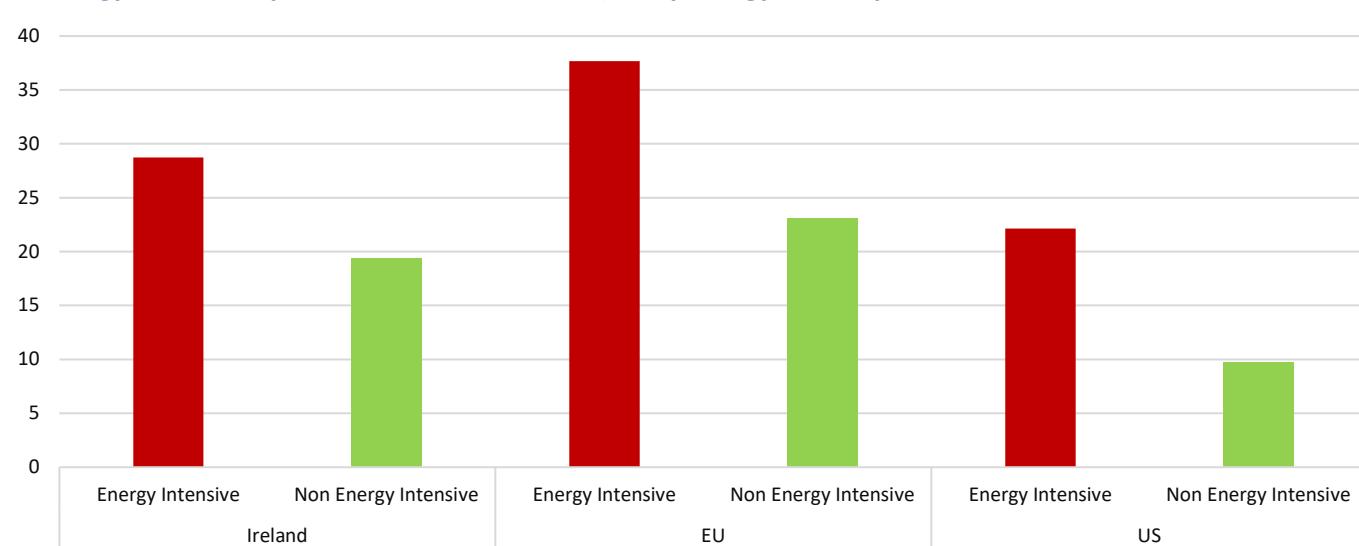
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

IRELAND – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity

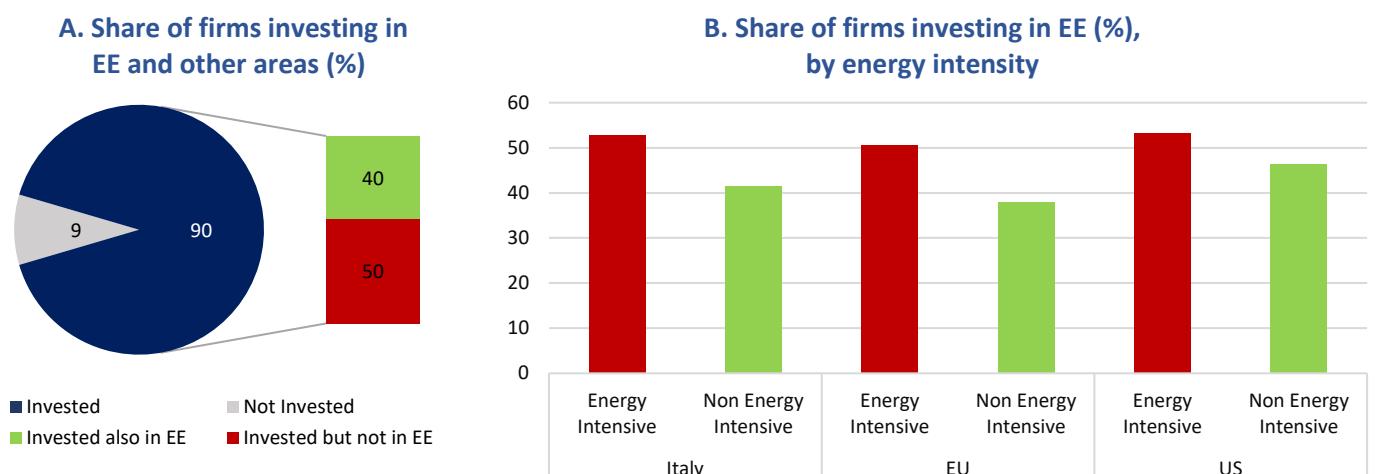


ITALY – ENERGY EFFICIENCY

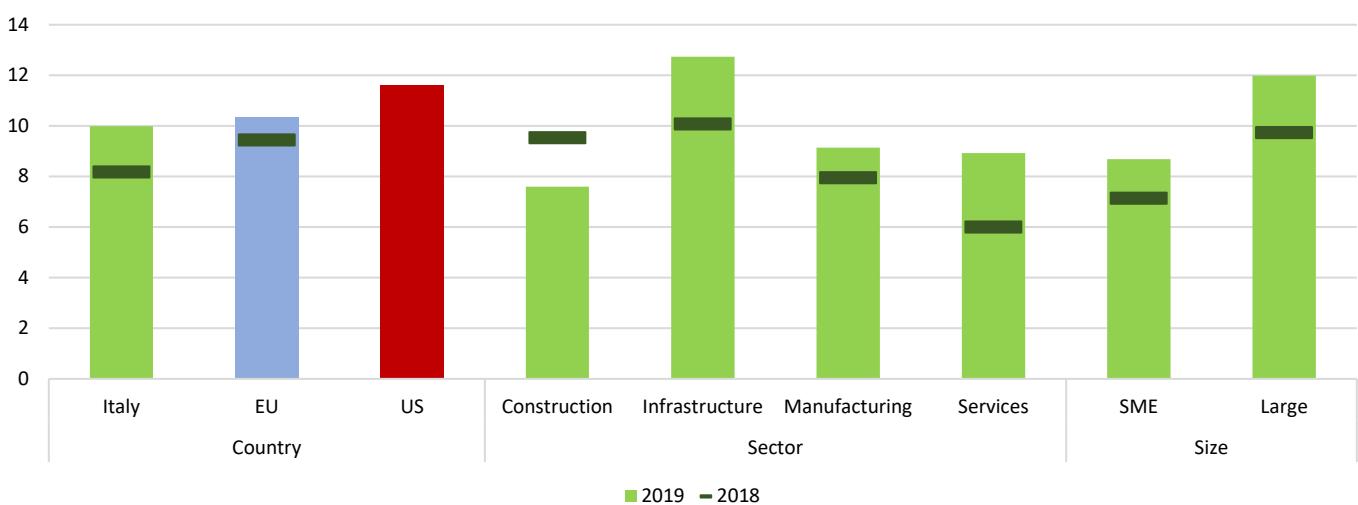
Summary

- More than two fifths of firms that invest in Italy, also **invest in EE** (40% of all firms). This share rises to 53% for the energy intensive sectors.
- Firms in Italy allocate **a tenth of their total investment in EE improvements**, similar to the EU and less than the US average. This proportion is higher in energy intensive sectors such as manufacturing and infrastructure.
- Firms in Italy report 35% of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and a third in the US.
- Two thirds** of the firms surveyed in Italy with an **energy audit invest in EE improvements**.
- More than a third** of the firms surveyed in Italy had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Italy **are more likely to invest in EE improvements when they implement advanced management practices**.
- Firms that are **more affected by energy costs are more likely to invest in EE improvements**. This is the only barrier to investment that is perceived differently between firms that invested also in EE and those that did not.

Energy efficiency (EE) investment

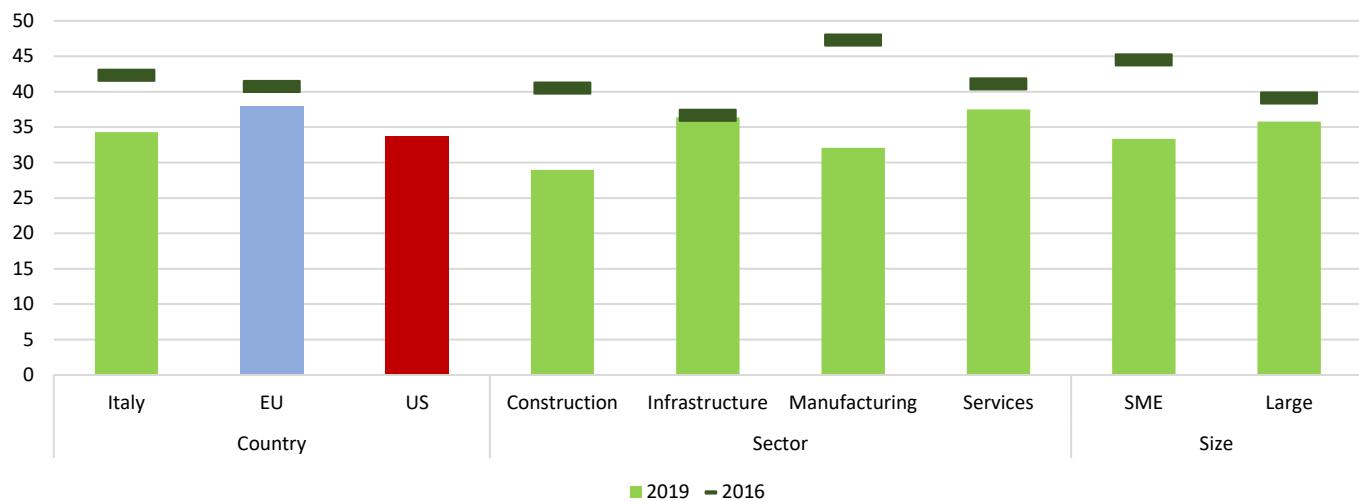


C. Proportion of firms' total investment for measures to improve EE (%)



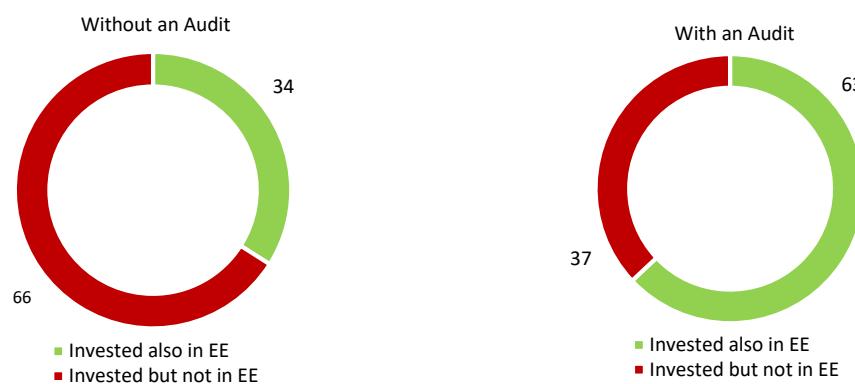
ITALY – ENERGY EFFICIENCY

D. Perceived share of building stock of high or highest energy efficiency standards (%)

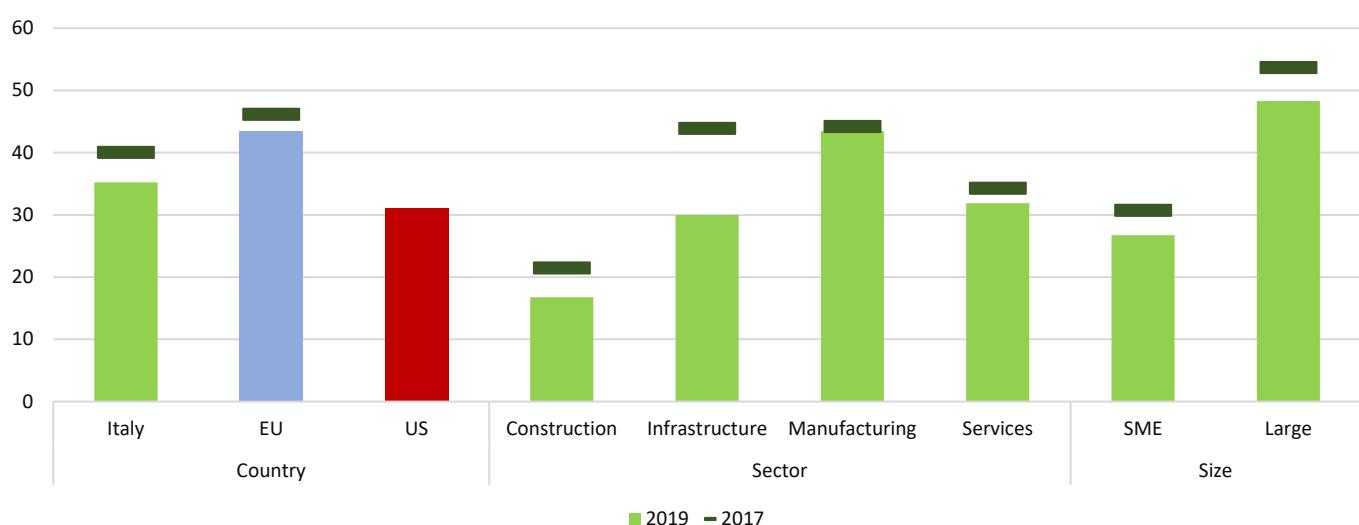


Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions

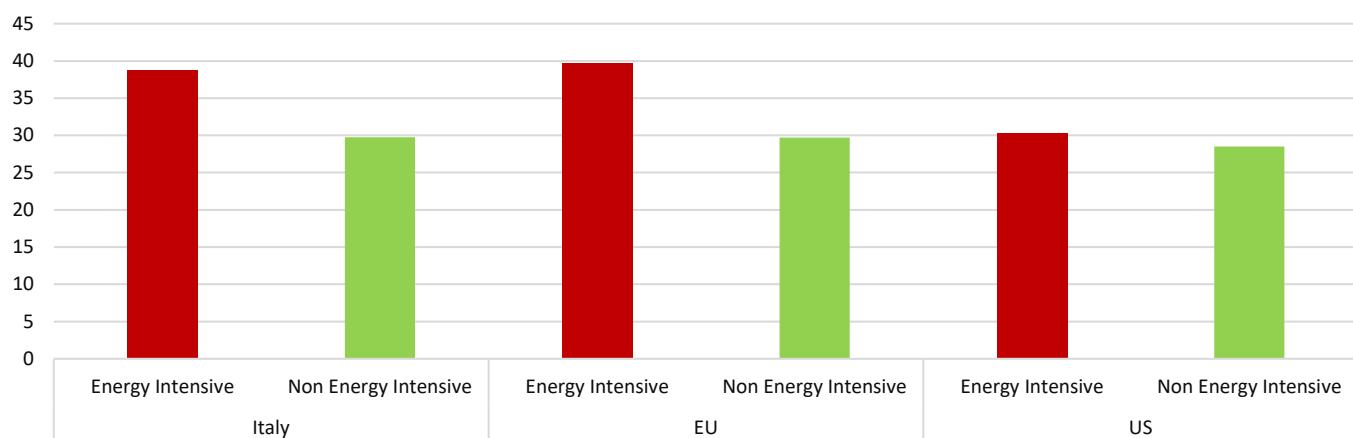


A1. Share of firms with an energy audit in the past three years (%)

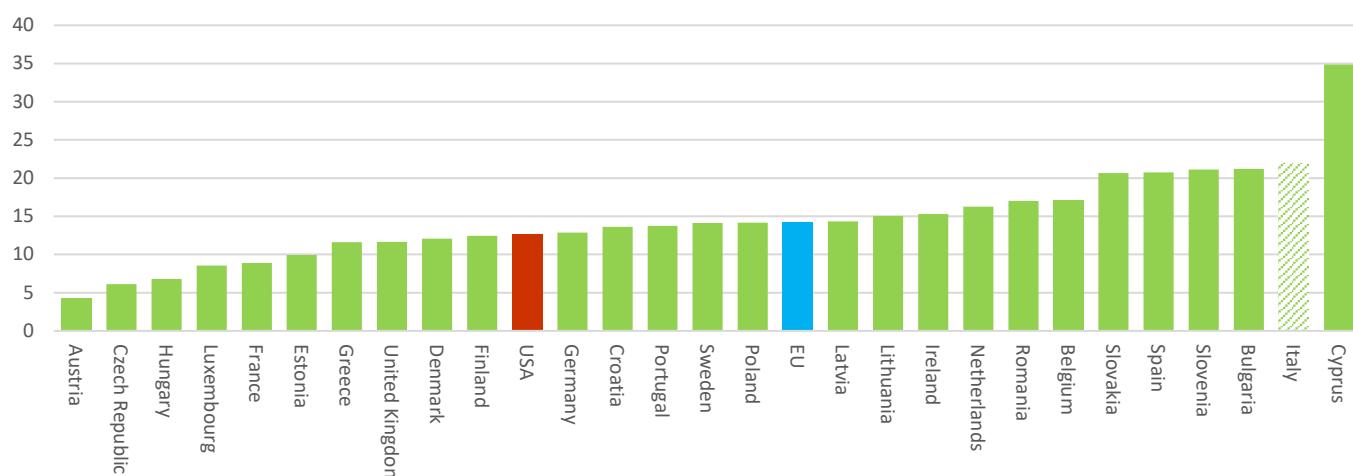


ITALY – ENERGY EFFICIENCY

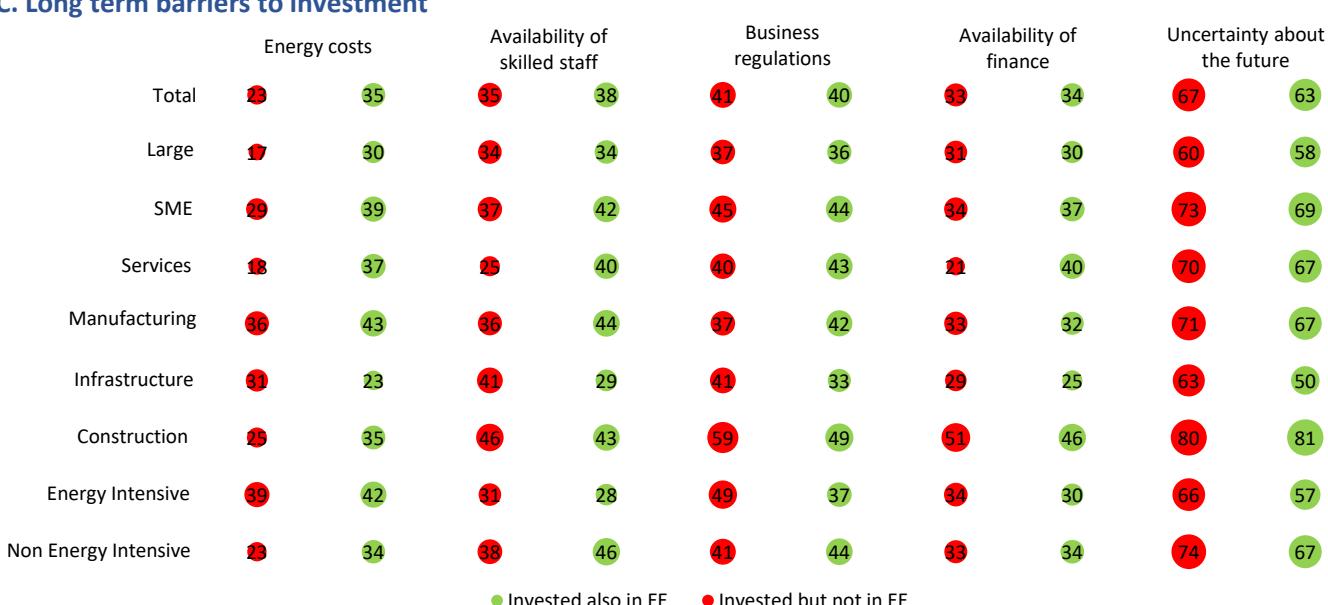
A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



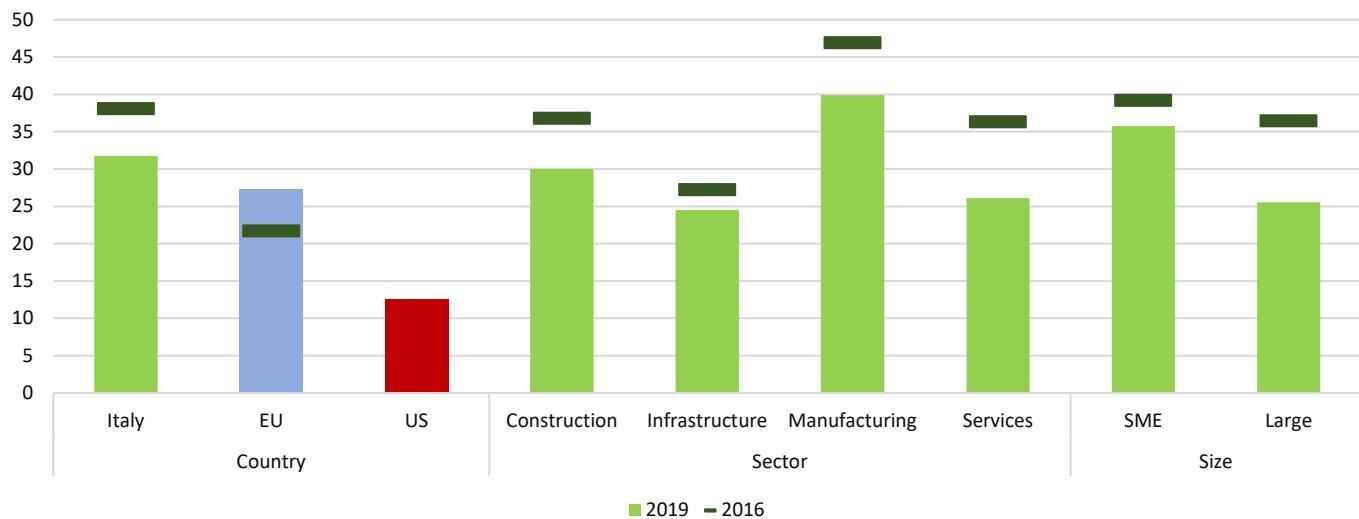
C. Long term barriers to investment



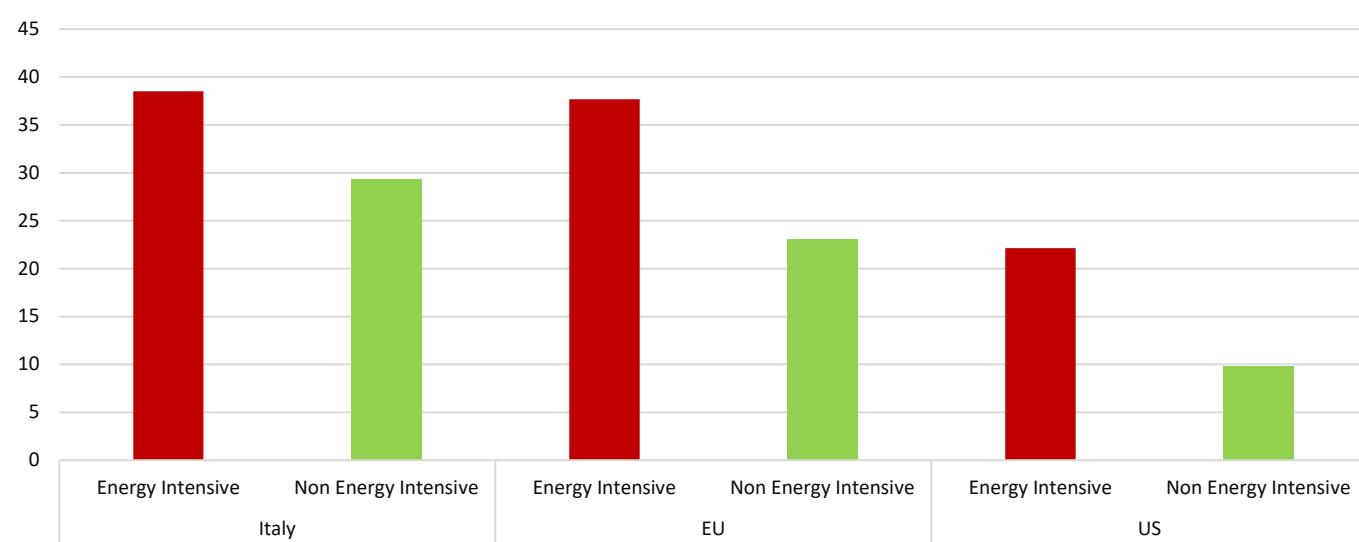
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

ITALY – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



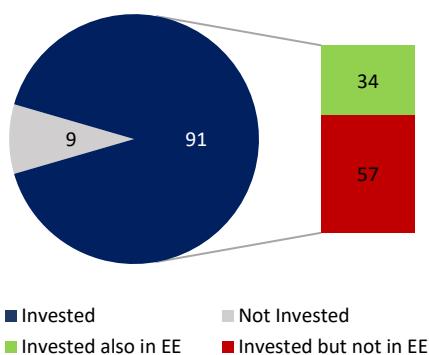
LATVIA – ENERGY EFFICIENCY

Summary

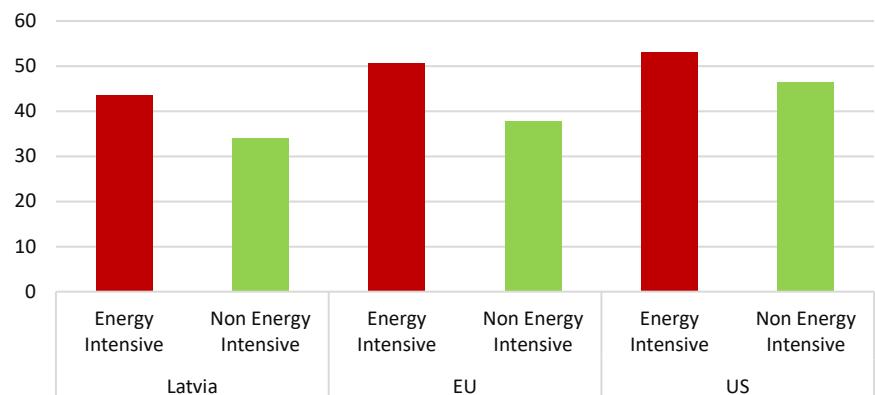
- *Two fifths* of firms that invest in Latvia, also **invest in EE** (34% of all firms).
- Firms in Latvia allocate **13% of their total investment in EE improvements**, more than the EU and the US average. This proportion is higher in energy intensive sectors such as infrastructure.
- Firms in Latvia report *a third* of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and similar to the US.
- *Two thirds* of the firms surveyed in Latvia with an **energy audit invest in EE improvements**.
- *Two fifths* of the firms surveyed in Latvia had an **energy audit** in the past three years, similar to the EU and compared to a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Latvia are *more likely* to **invest in EE improvements when they implement advanced management practices**.
- Firms that are *more affected by energy costs* are *more likely to invest in EE improvements*.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



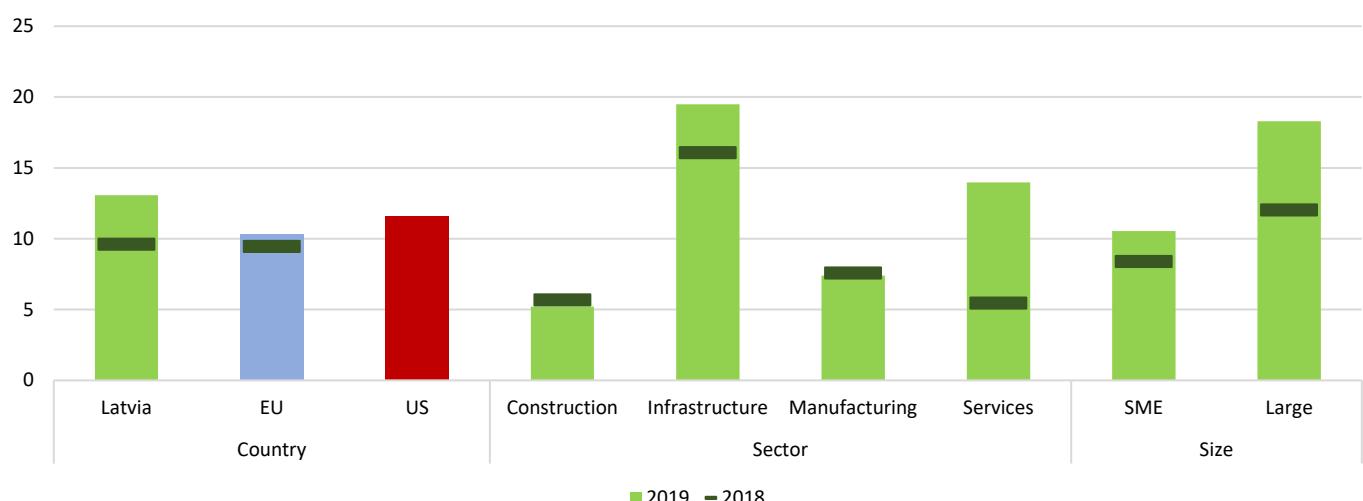
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

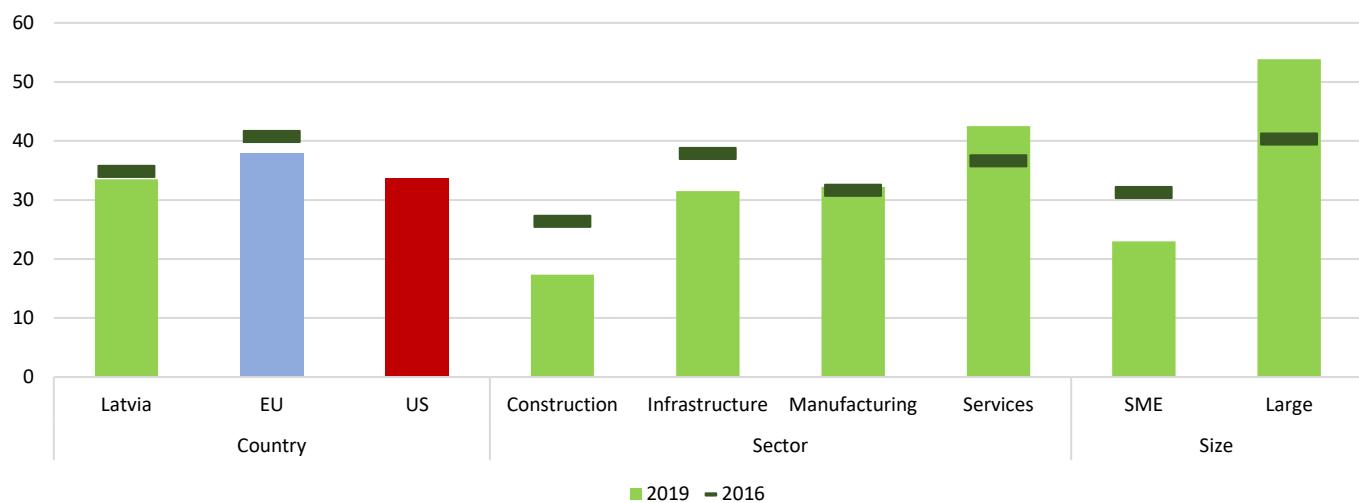


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

LATVIA – ENERGY EFFICIENCY

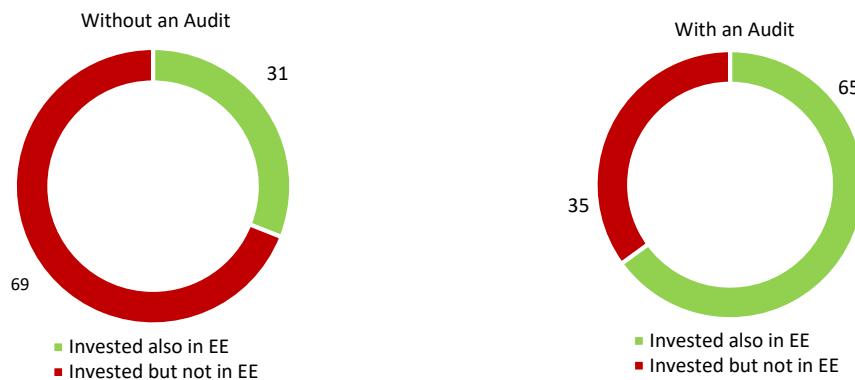
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

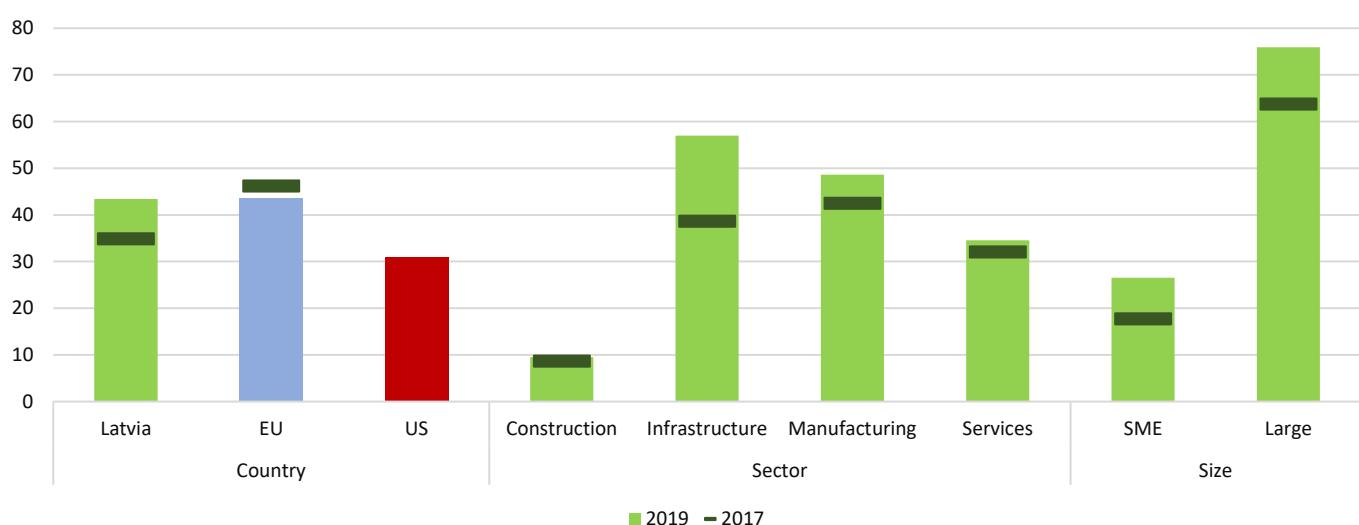
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

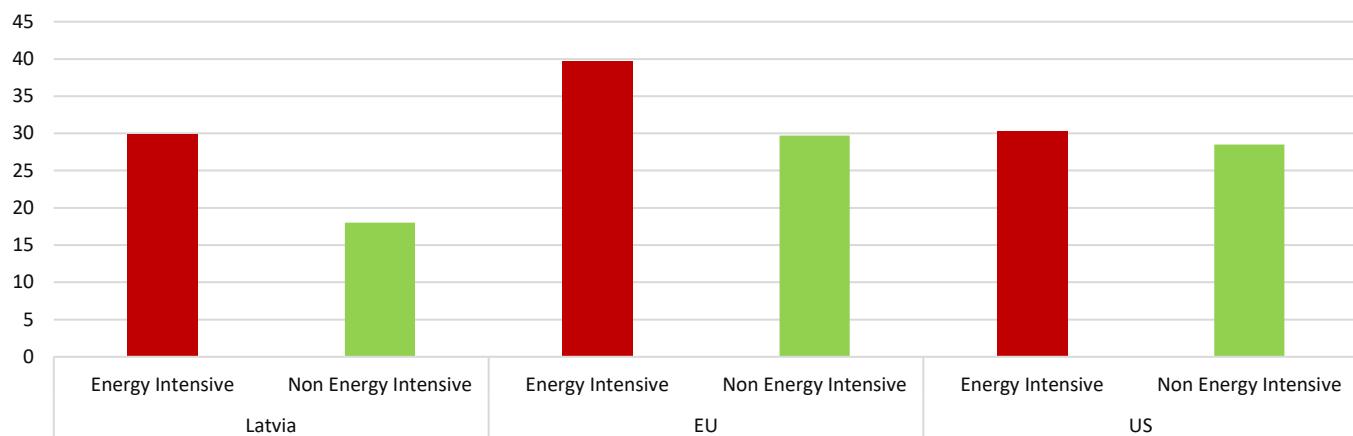
A1. Share of firms with an energy audit in the past three years (%)



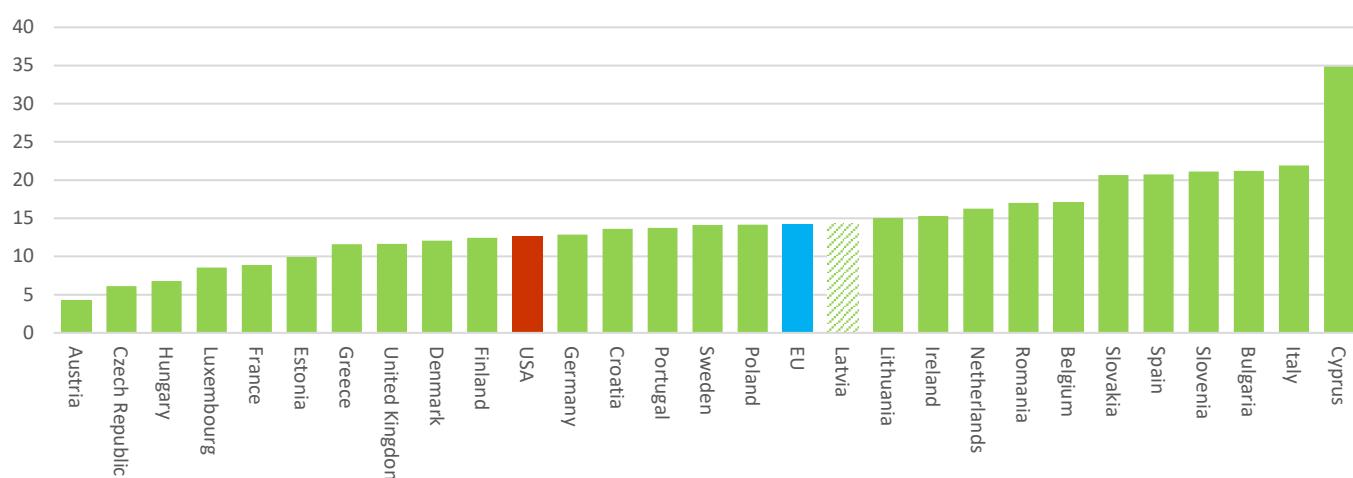
Base: All firms (data not shown for those who said no/don't know/refused)

LATVIA – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

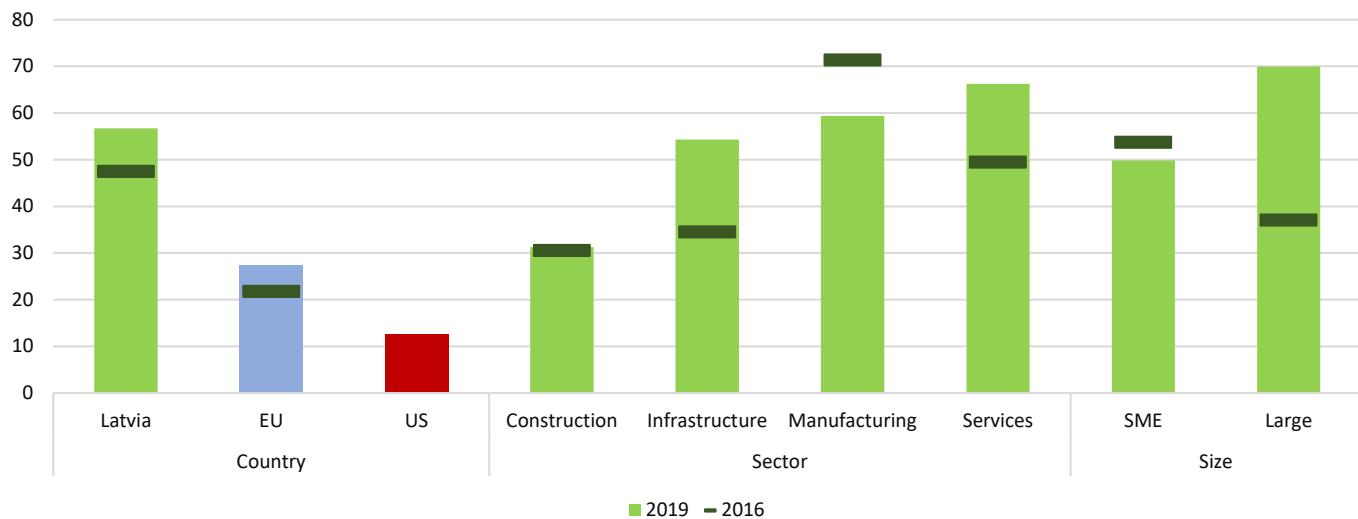
C. Long term barriers to investment



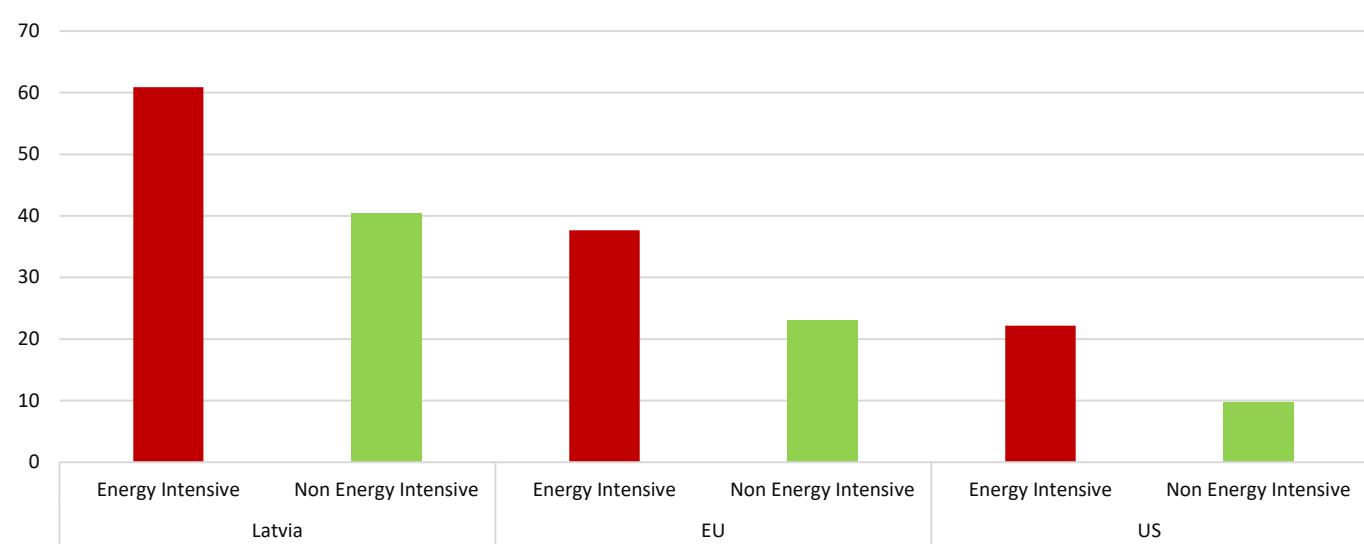
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

LATVIA – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



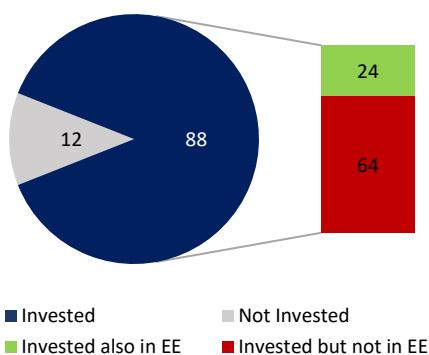
LITHUANIA – ENERGY EFFICIENCY

Summary

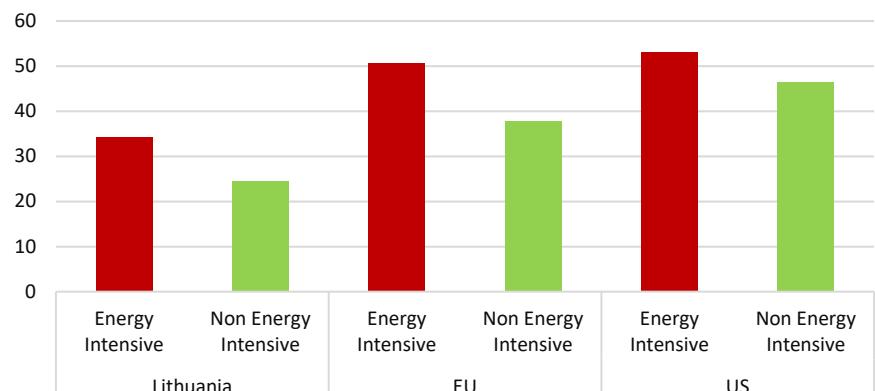
- Less than a third of firms that invest in Lithuania, also invest in EE (24% of all firms).*
- Firms in Lithuania allocate **7% of their total investment in EE improvements**, less than the EU and the US average. This proportion is higher in energy intensive sectors such as manufacturing and infrastructure.
- Firms in Lithuania report **15% of their building stock to be of high or highest energy efficiency (EE) standards**, a share significantly below that of EU and US counterparts (two fifths and a third, respectively).
- Half of the firms surveyed in Lithuania with an energy audit invest in EE improvements.*
- Almost two fifths of the firms surveyed in Lithuania had an energy audit in the past three years, similar to the EU and compared to a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.*
- Firms in Lithuania *are more likely to invest in EE improvements when they implement advanced management practices.*

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



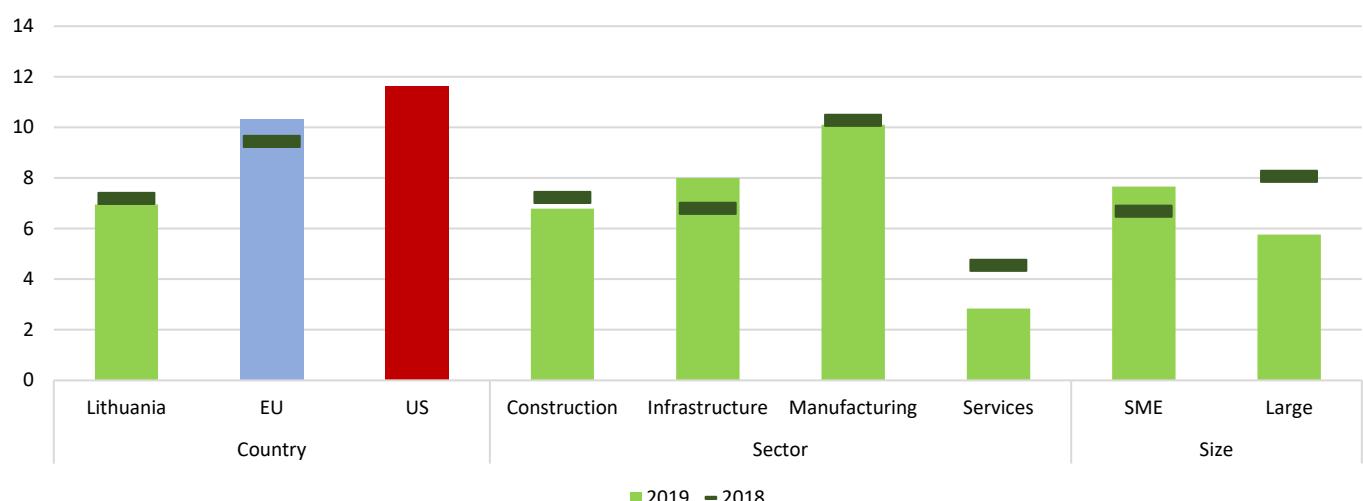
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

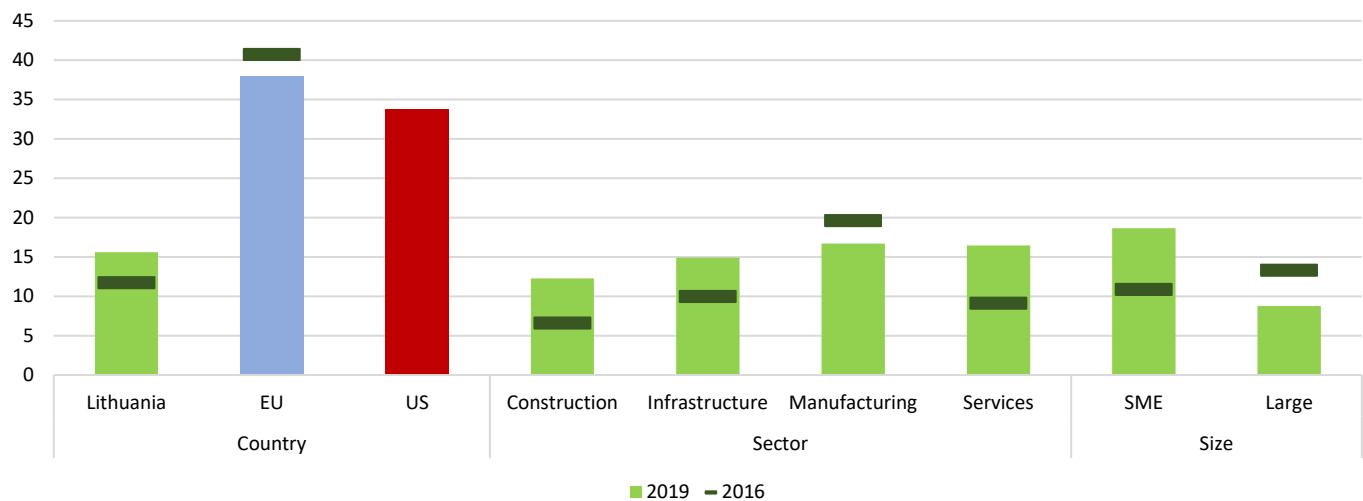


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

LITHUANIA – ENERGY EFFICIENCY

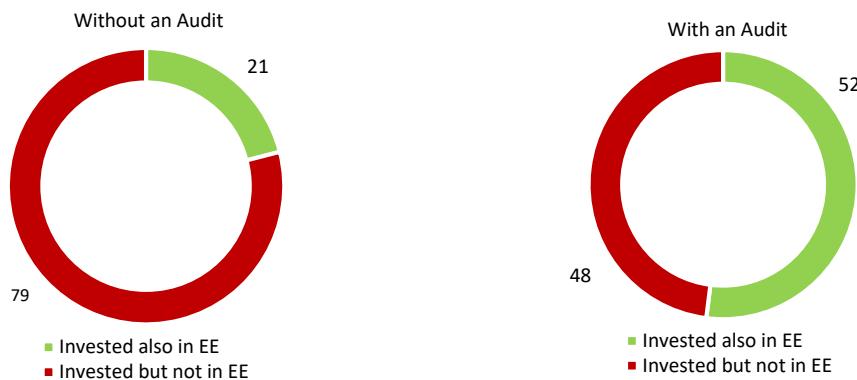
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

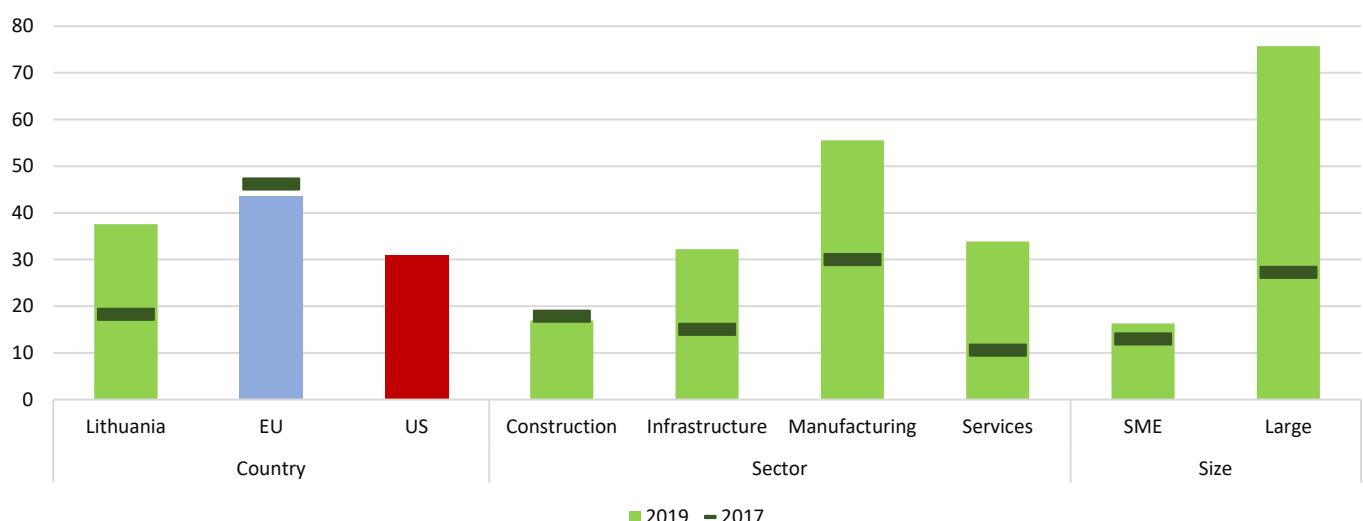
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

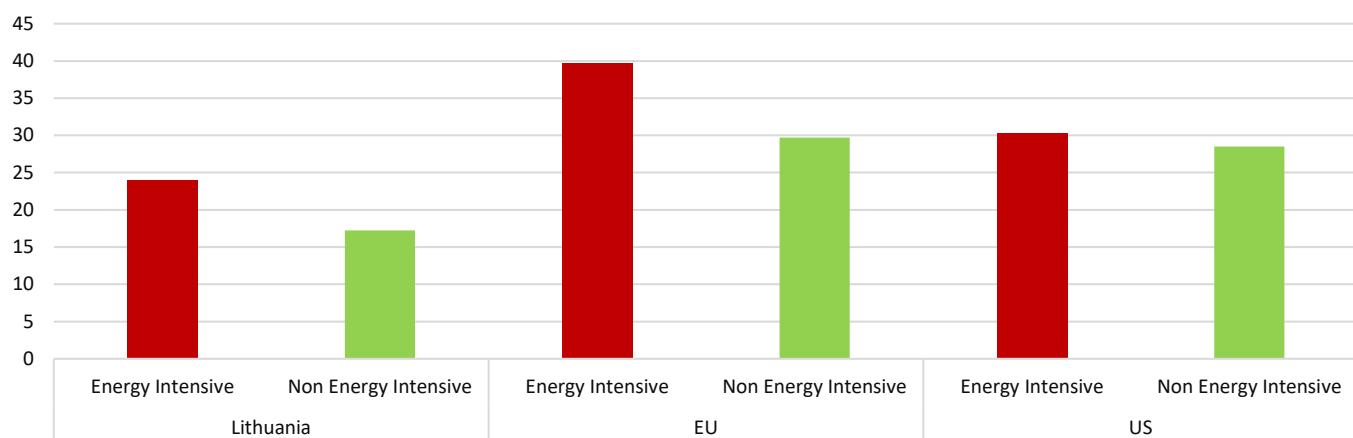
A1. Share of firms with an energy audit in the past three years (%)



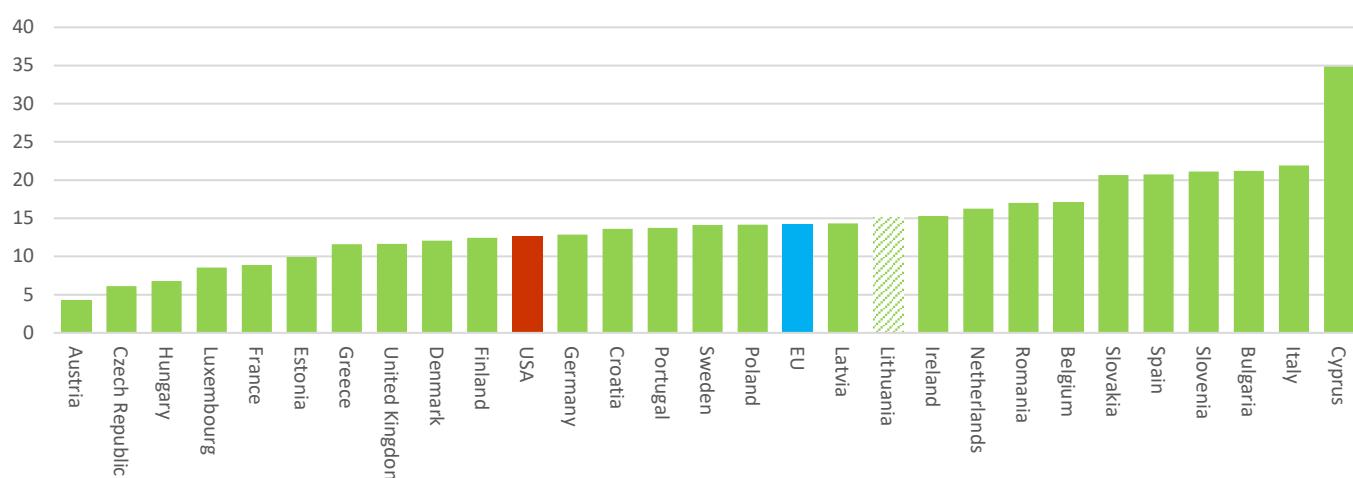
Base: All firms (data not shown for those who said no/don't know/refused)

LITHUANIA – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

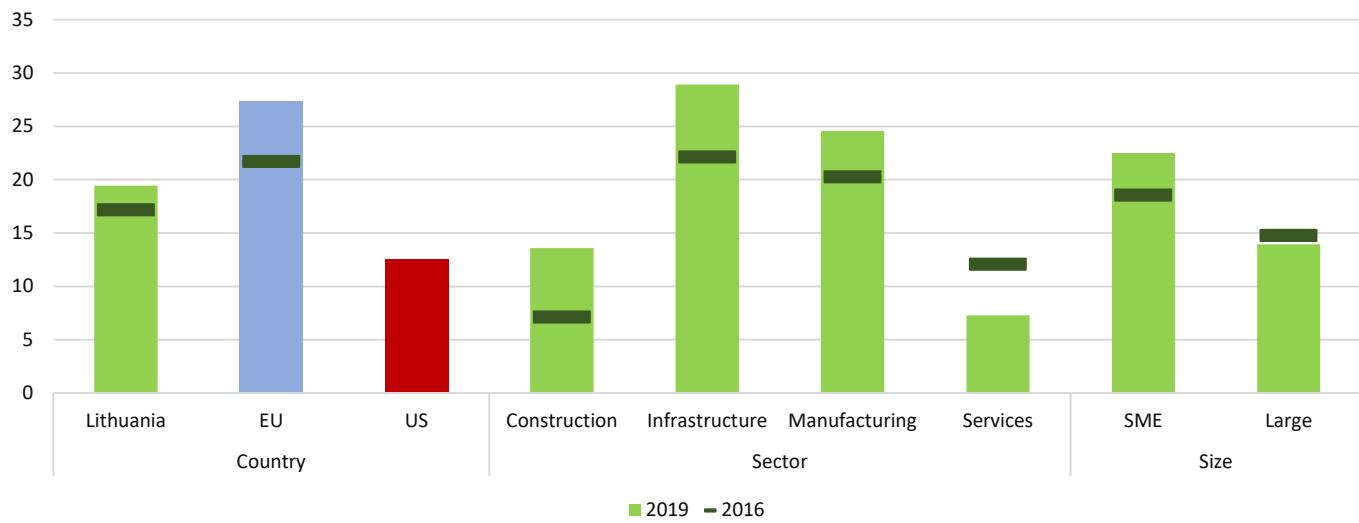
| | Energy costs | | Availability of skilled staff | | Business regulations | | Availability of finance | | Uncertainty about the future | |
|----------------------|--------------|----|-------------------------------|----|----------------------|----|-------------------------|----|------------------------------|----|
| Total | 24 | 17 | 56 | 44 | 28 | 24 | 28 | 17 | 44 | 34 |
| Large | 30 | 8 | 60 | 33 | 30 | 25 | 30 | 8 | 50 | 25 |
| SME | 17 | 26 | 52 | 56 | 26 | 23 | 25 | 25 | 39 | 44 |
| Services | 9 | 11 | 57 | 47 | 30 | 14 | 18 | 28 | 36 | 17 |
| Manufacturing | 16 | 33 | 51 | 59 | 16 | 20 | 26 | 22 | 40 | 46 |
| Infrastructure | 30 | 39 | 45 | 57 | 30 | 32 | 22 | 25 | 38 | 50 |
| Construction | 18 | 5 | 56 | 45 | 28 | 35 | 37 | 20 | 42 | 65 |
| Energy Intensive | 30 | 40 | 45 | 55 | 26 | 24 | 24 | 14 | 41 | 43 |
| Non Energy Intensive | 12 | 13 | 56 | 55 | 26 | 30 | 26 | 26 | 38 | 47 |

● Invested also in EE ● Invested but not in EE

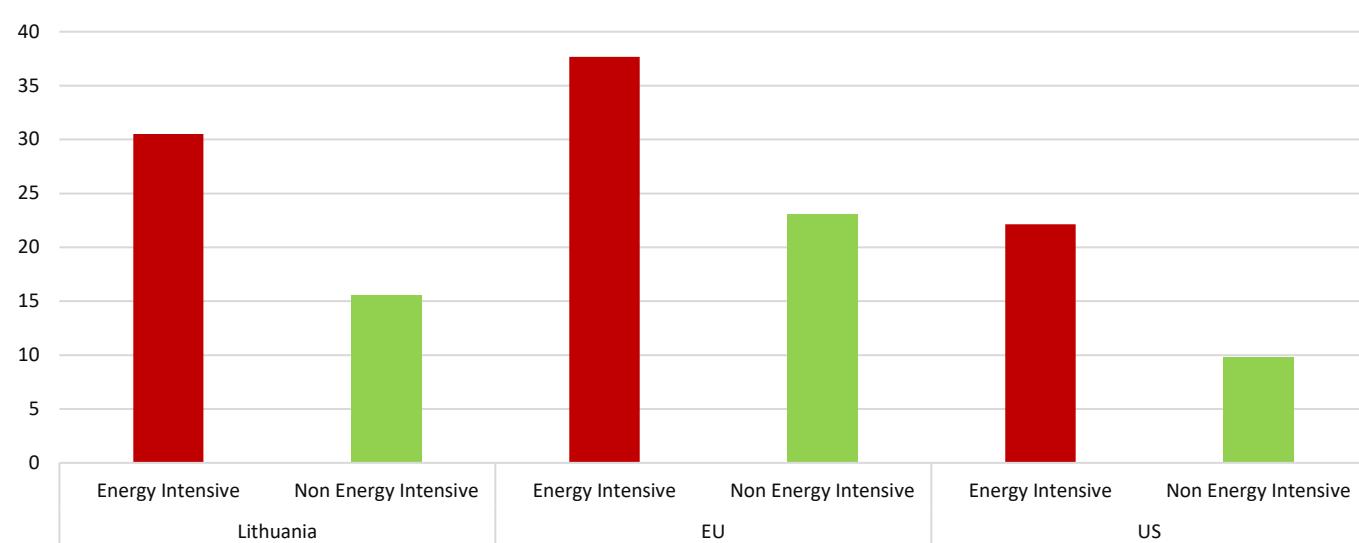
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

LITHUANIA – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



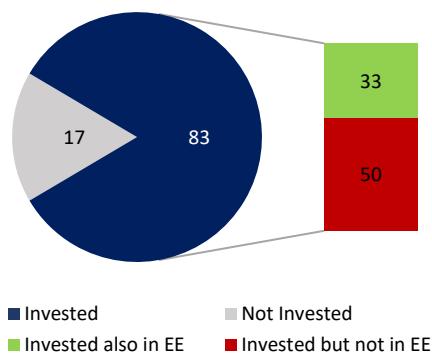
LUXEMBOURG – ENERGY EFFICIENCY

Summary

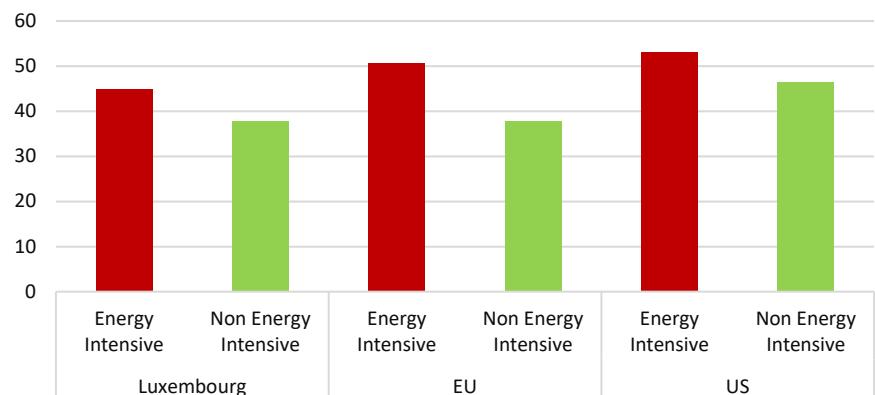
- **Two fifths** of firms that invest in Luxembourg, also **invest in EE** (33% of all firms).
- Firms in Luxembourg allocate **12% of their total investment in EE improvements**, more than the EU and the US average. This proportion is higher in energy intensive sectors such as manufacturing.
- Firms in Luxembourg report **a third** of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and similar to the US.
- **Two thirds** of the firms surveyed in Luxembourg with an **energy audit invest in EE improvements**.
- **Almost a fourth** of the firms surveyed in Luxembourg had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Luxembourg are **more likely to invest in EE improvements when they implement advanced management practices**.
- Firms that are **more affected by energy costs are more likely to invest in EE improvements**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



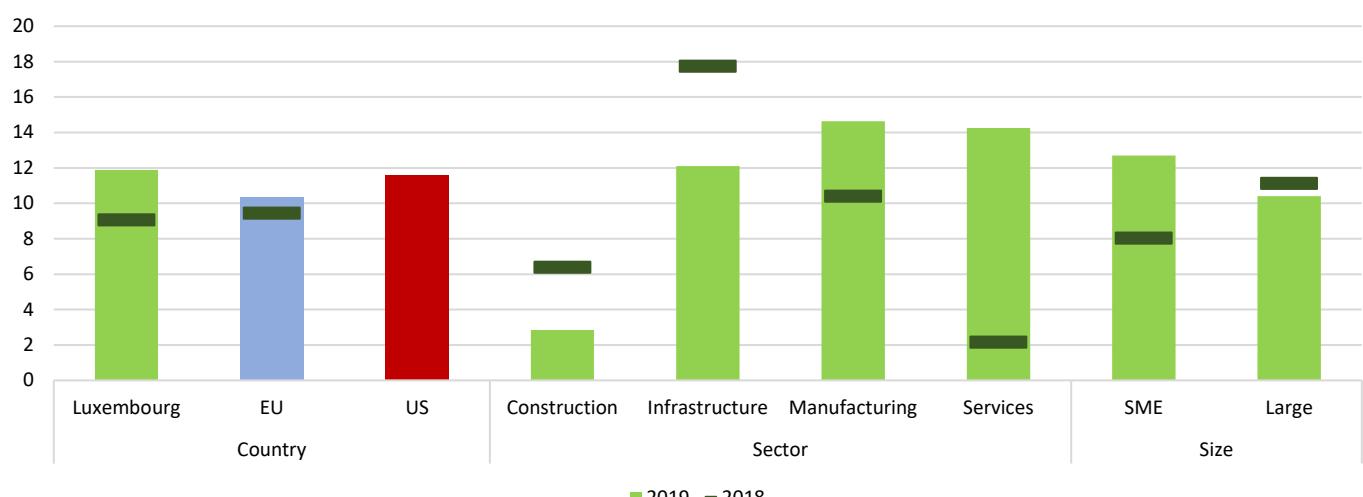
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

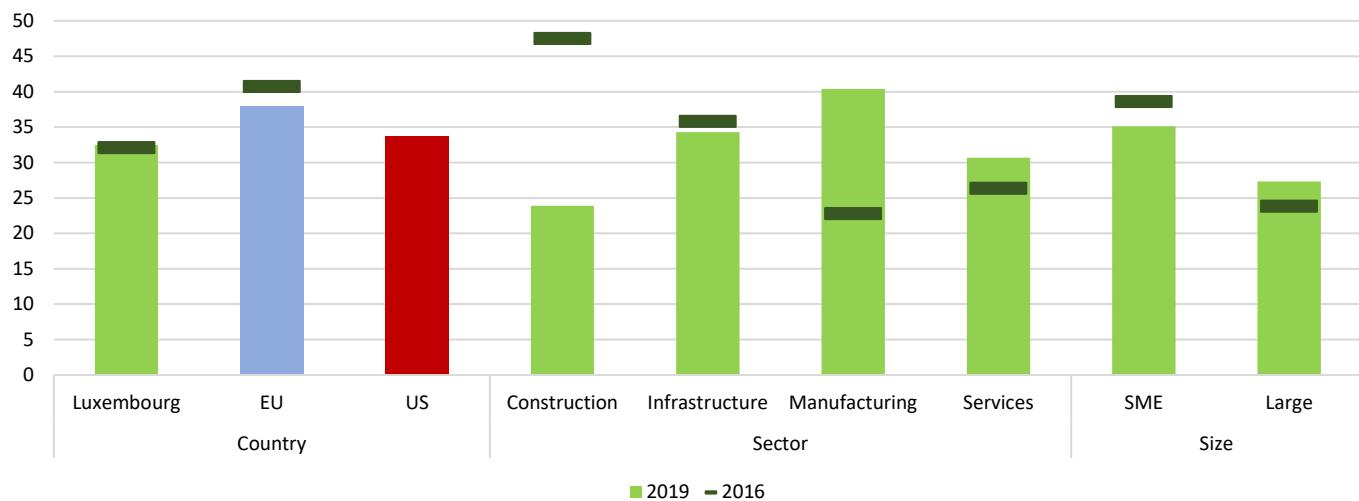


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

LUXEMBOURG – ENERGY EFFICIENCY

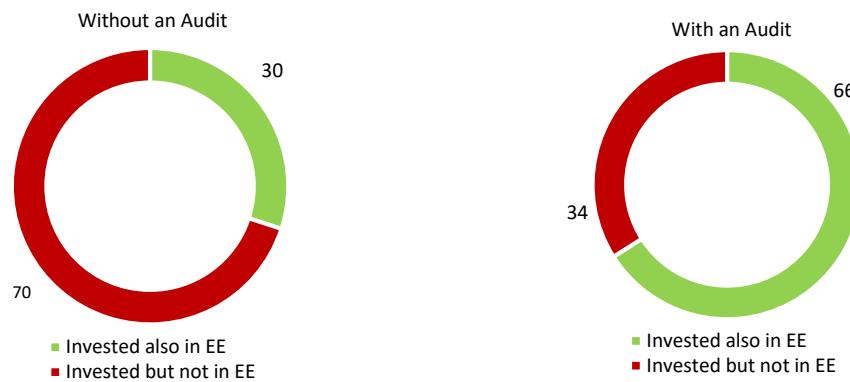
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

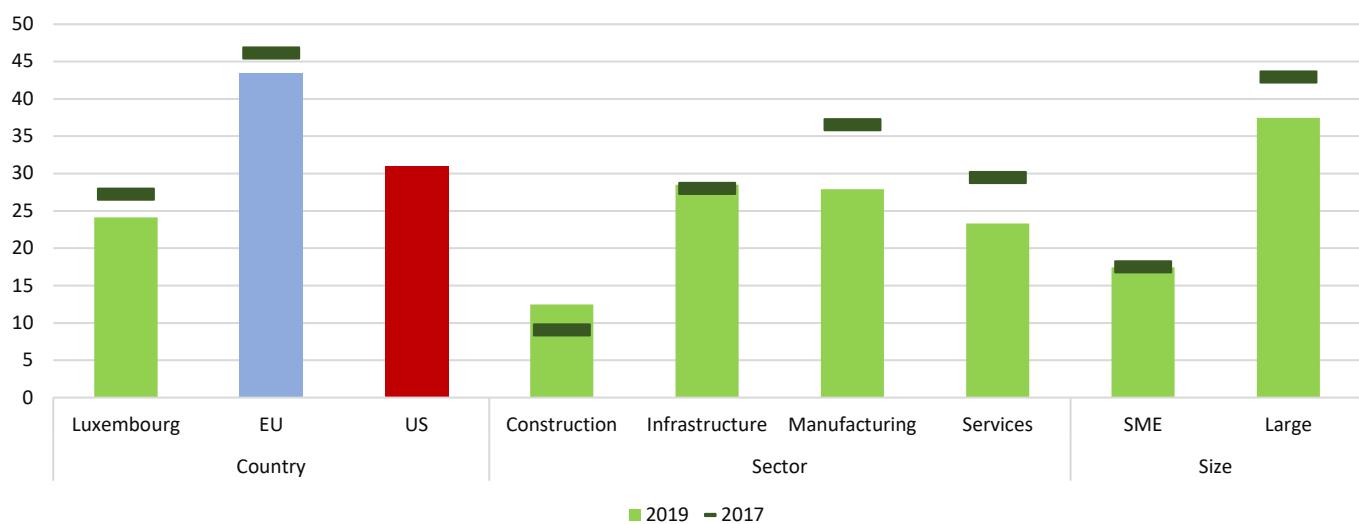
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

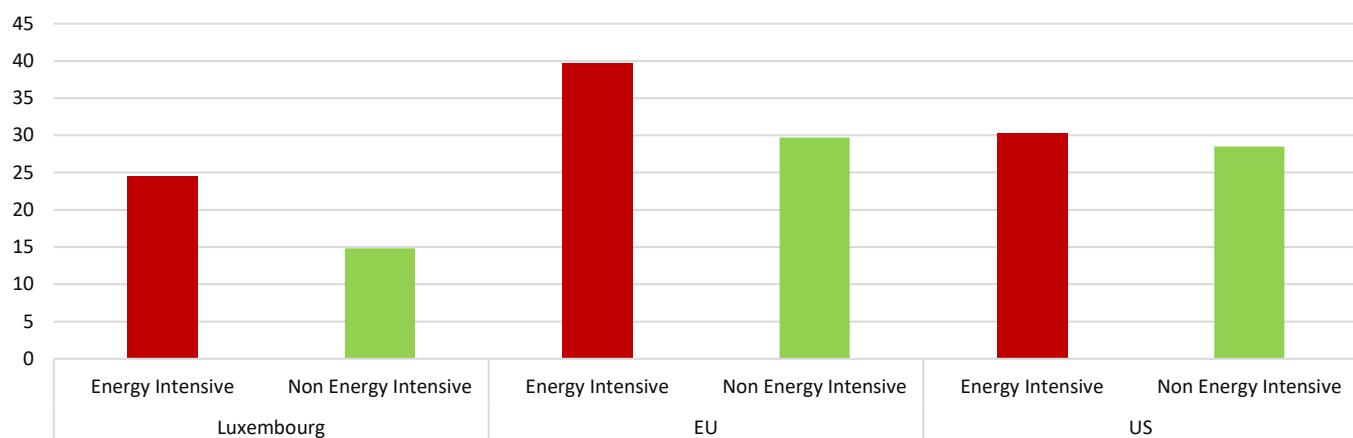
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

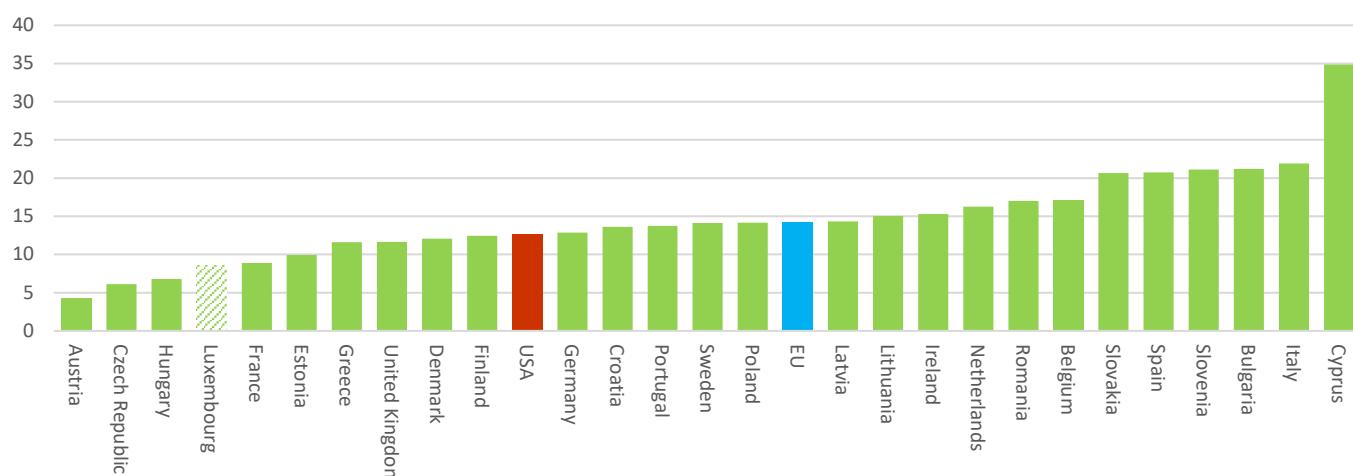
LUXEMBOURG – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

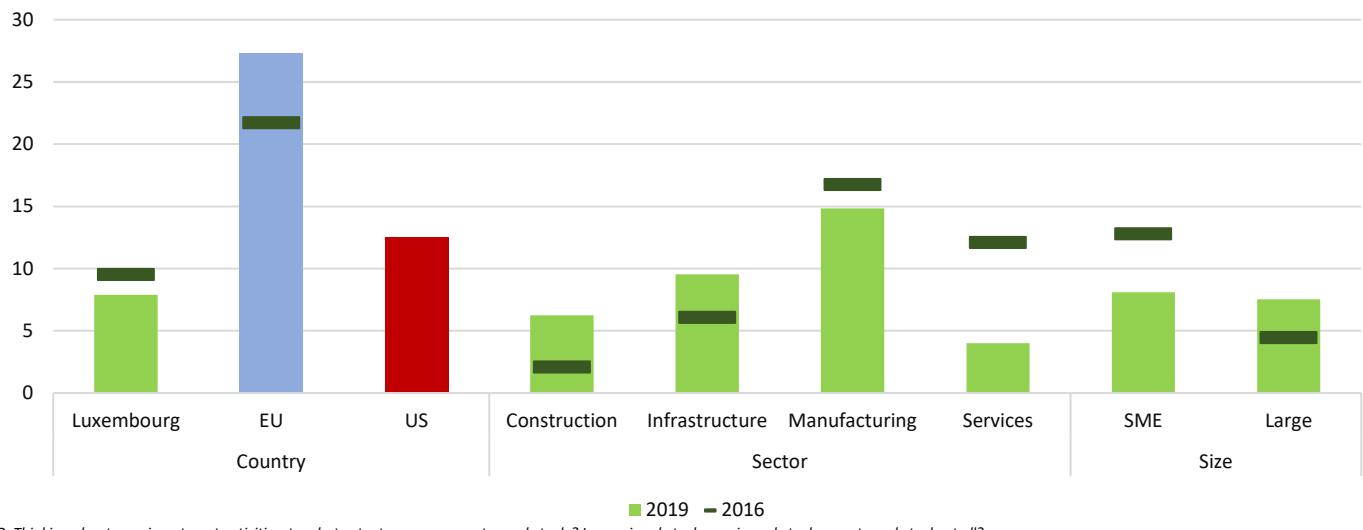
| | Energy costs | | Availability of skilled staff | | Business regulations | | Availability of finance | | Uncertainty about the future | |
|----------------------|--------------|----|-------------------------------|----|----------------------|----|-------------------------|----|------------------------------|----|
| Total | 5 | 14 | 54 | 41 | 6 | 7 | 13 | 10 | 20 | 15 |
| Large | | 18 | 50 | 27 | | | 13 | 9 | 25 | 9 |
| SME | 9 | 9 | 58 | 54 | 13 | 13 | 14 | 10 | 16 | 21 |
| Services | 5 | 5 | 45 | 45 | 23 | 15 | 9 | 5 | 14 | 15 |
| Manufacturing | 7 | 15 | 47 | 56 | 13 | 7 | 7 | 15 | 13 | 30 |
| Infrastructure | 22 | 11 | 65 | 56 | 9 | 22 | 35 | 11 | 30 | 17 |
| Construction | 7 | 68 | 43 | | 4 | | 4 | 7 | 8 | 7 |
| Energy Intensive | 26 | 24 | 63 | 47 | 11 | 18 | 26 | 6 | 26 | 18 |
| Non Energy Intensive | 3 | 7 | 57 | 54 | 12 | 7 | 10 | 12 | 13 | 15 |

● Invested also in EE ● Invested but not in EE

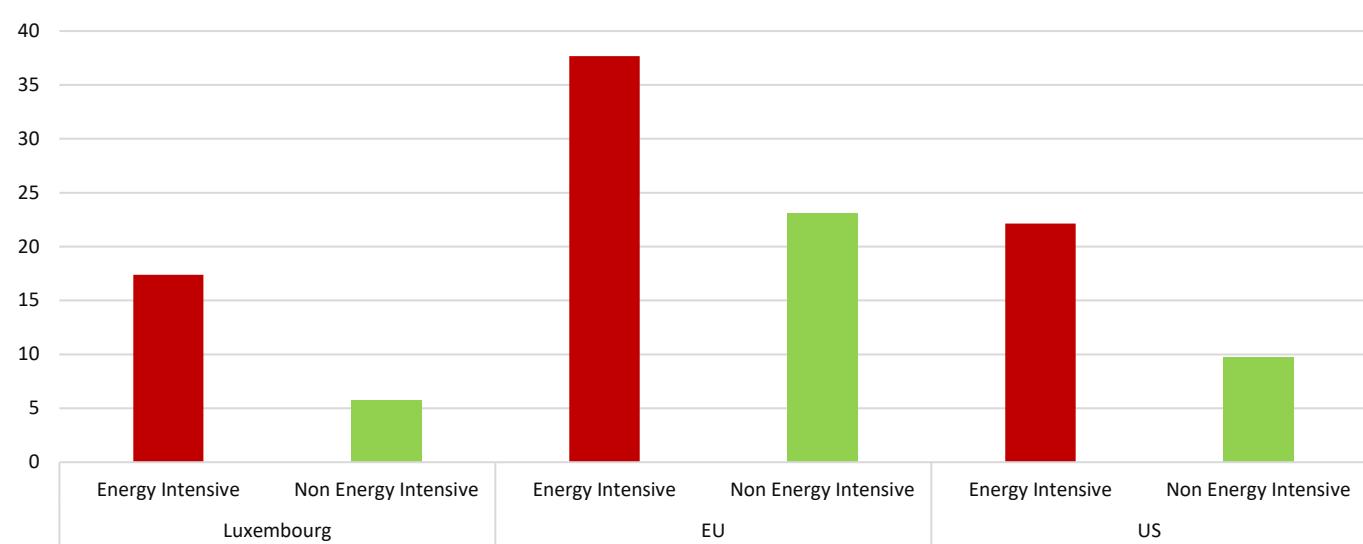
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

LUXEMBOURG – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



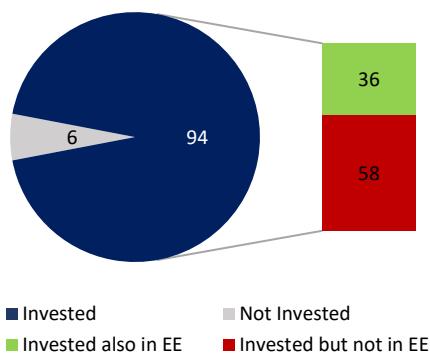
MALTA – ENERGY EFFICIENCY

Summary

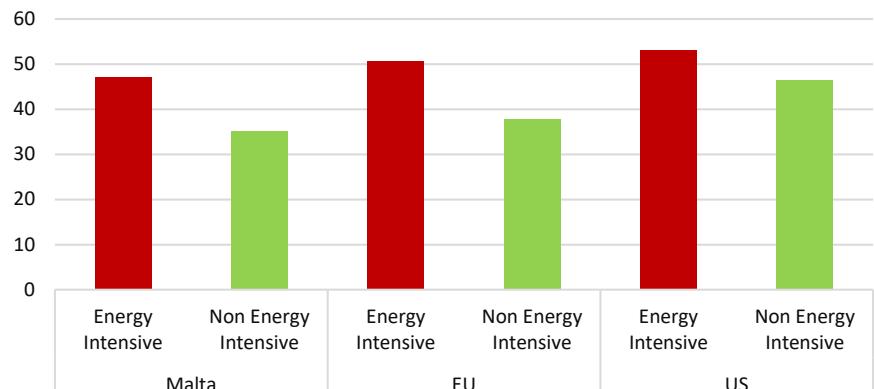
- **Two fifths** of firms that invest in Malta, also **invest in EE** (36% of all firms). This share rises to 48% for the energy intensive sectors.
- Firms in Malta allocate **12% of their total investment in EE improvements**, more than the EU and the US average. This proportion is higher in energy intensive sectors such as manufacturing and infrastructure.
- Firms in Malta report **two fifths** of their **building stock to be of high or highest energy efficiency (EE) standards**, similar to the EU and compared to a third in the US.
- **Almost two thirds** of the firms surveyed in Malta with an **energy audit invest in EE improvements**.
- **A fourth** of the firms surveyed in Malta had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms that are **more affected by energy costs** are **more likely to invest in EE improvements**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



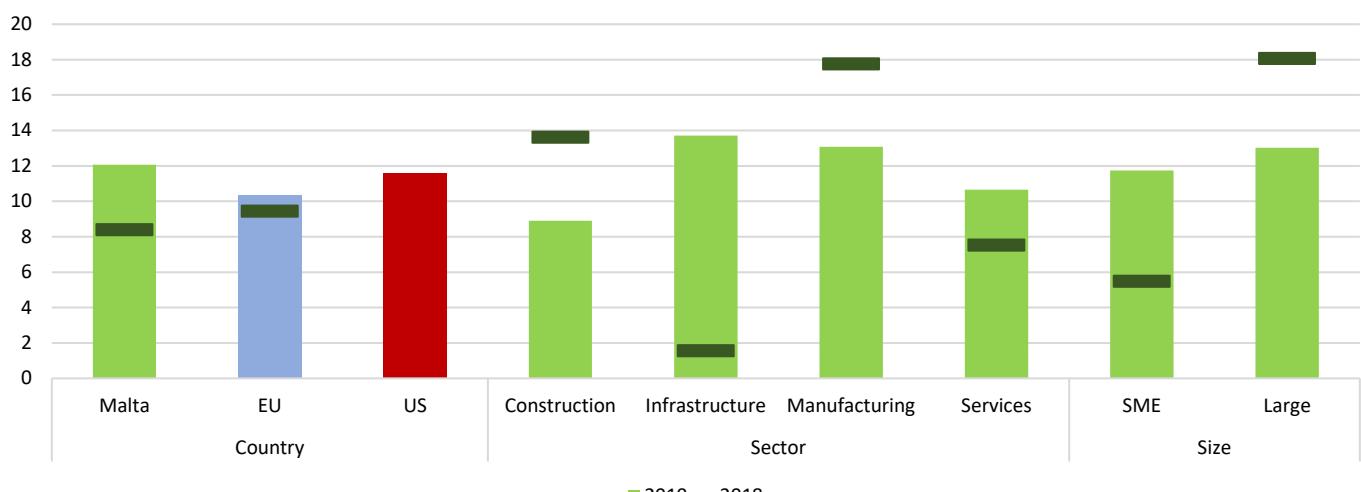
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

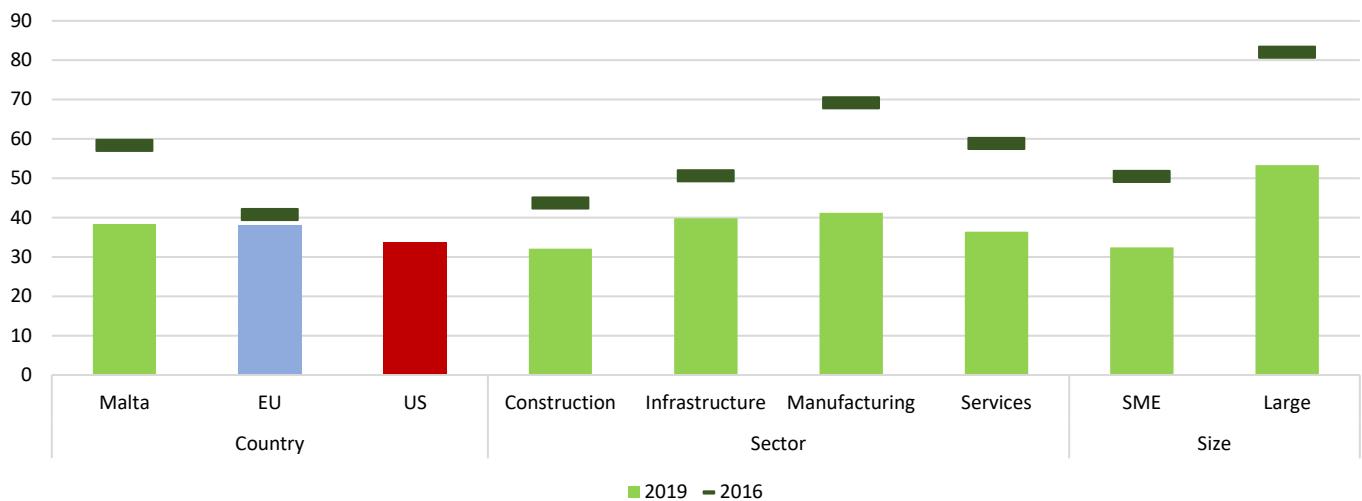


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

MALTA – ENERGY EFFICIENCY

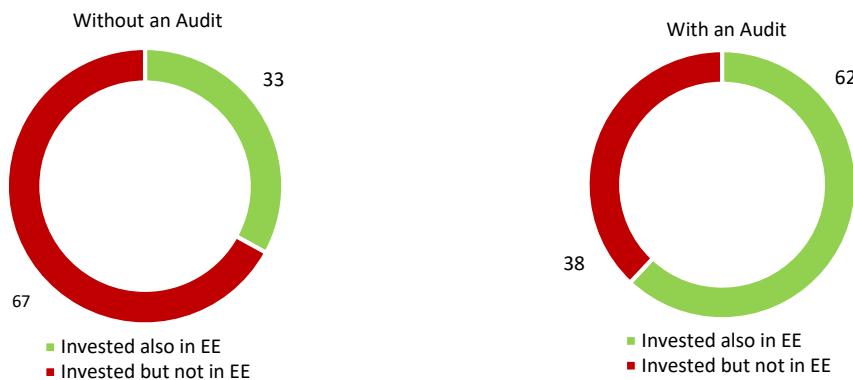
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

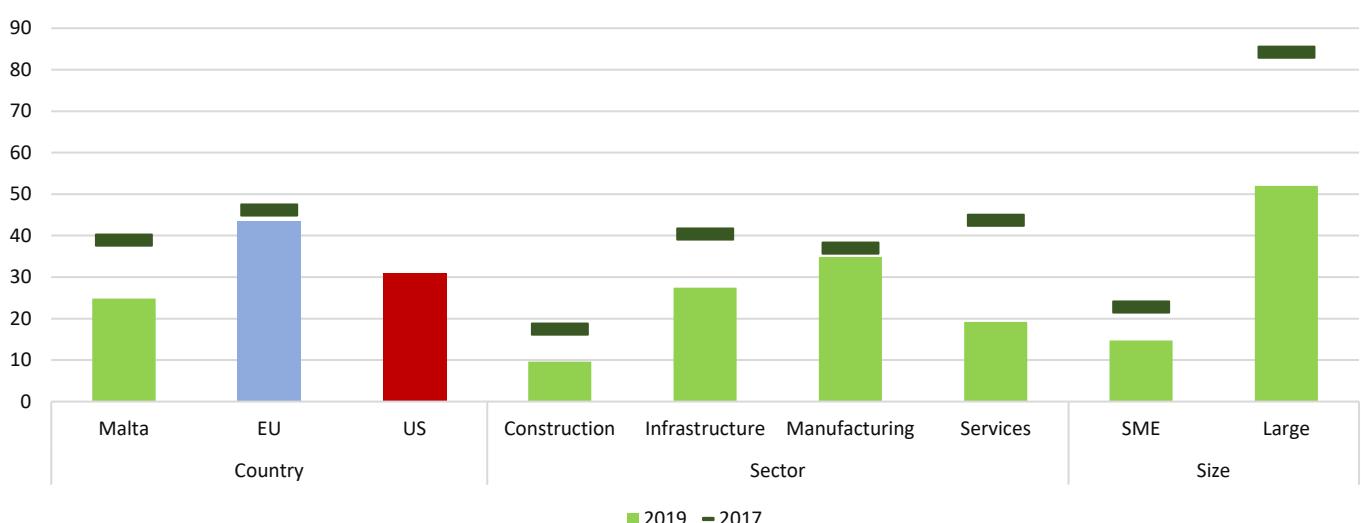
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

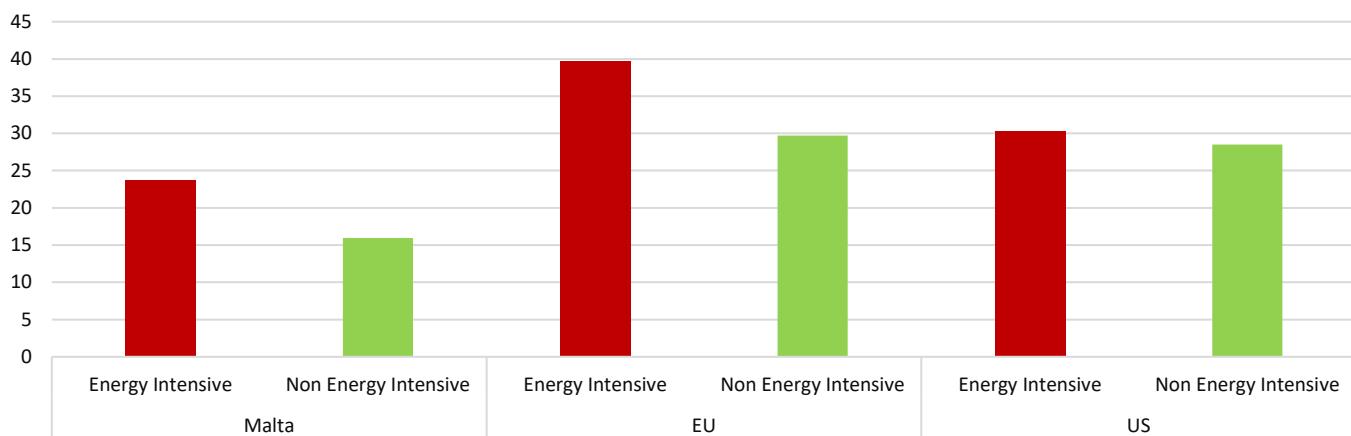
A1. Share of firms with an energy audit in the past three years (%)



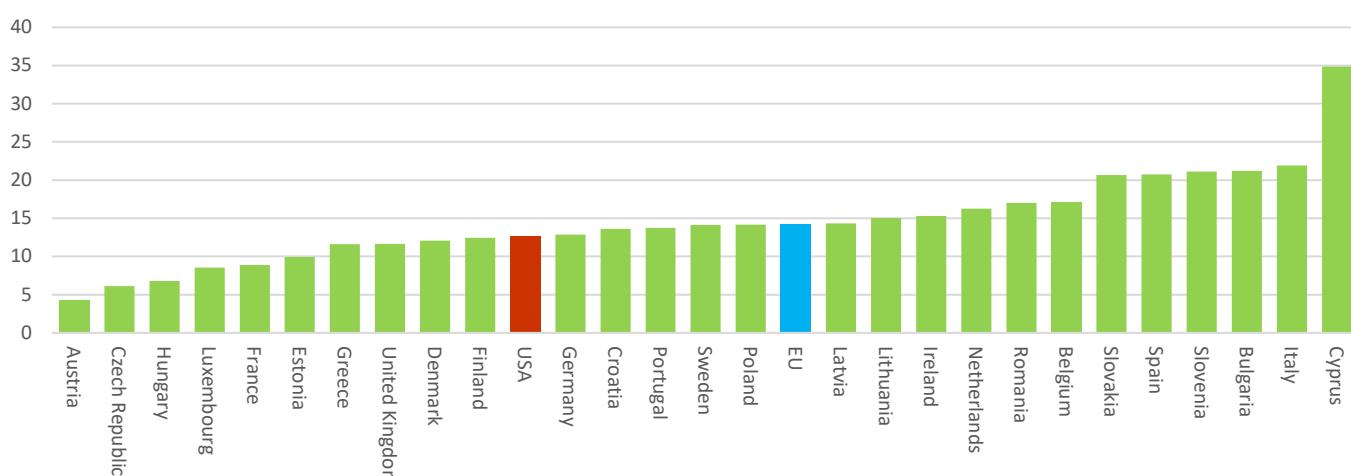
Base: All firms (data not shown for those who said no/don't know/refused)

MALTA – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

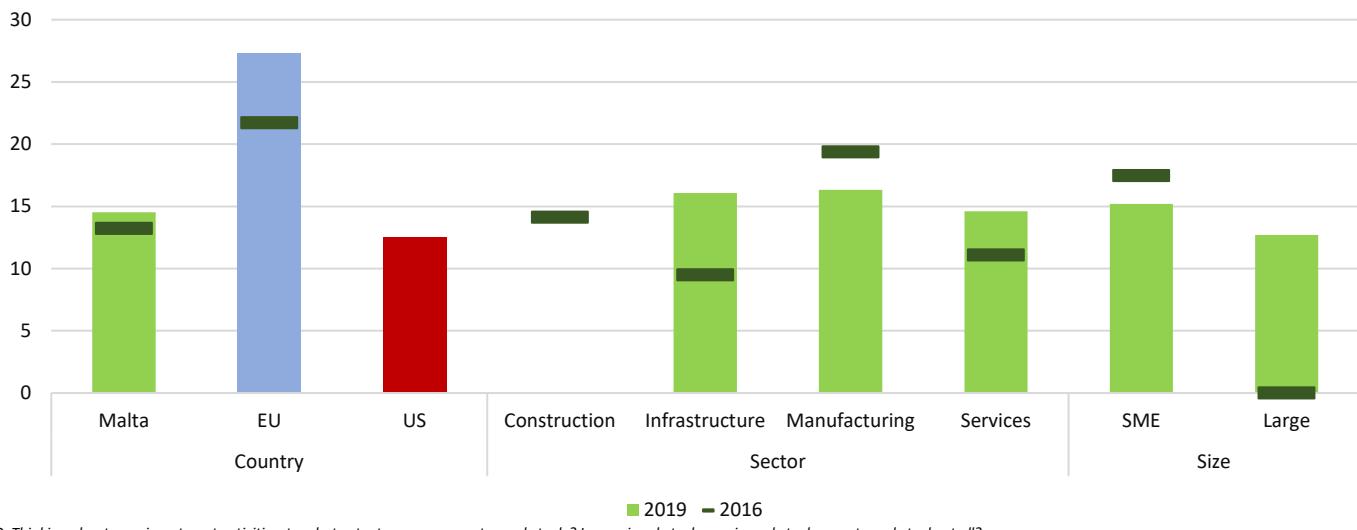
| | Energy costs | | Availability of skilled staff | | Business regulations | | Availability of finance | | Uncertainty about the future | |
|----------------------|--------------|----|-------------------------------|-----|----------------------|----|-------------------------|----|------------------------------|----|
| Total | 8 | 10 | 56 | 85 | 8 | 8 | 28 | 11 | 9 | 23 |
| Large | | | 83 | 88 | | | 33 | | | 25 |
| SME | 15 | 20 | 78 | 83 | 16 | 15 | 22 | 23 | 17 | 21 |
| Services | 19 | 15 | 72 | 88 | 21 | 18 | 26 | 15 | 9 | 18 |
| Manufacturing | 18 | 24 | 82 | 76 | 11 | 12 | 21 | 24 | 20 | 24 |
| Infrastructure | 7 | 15 | 73 | 85 | 7 | | 13 | 23 | 20 | 31 |
| Construction | | | 89 | 100 | 22 | 33 | 22 | 33 | 11 | |
| Energy Intensive | 20 | 27 | 70 | 77 | 10 | 5 | 30 | 23 | 20 | 23 |
| Non Energy Intensive | 18 | 14 | 78 | 88 | 17 | 14 | 19 | 12 | 16 | 21 |

● Invested also in EE ● Invested but not in EE

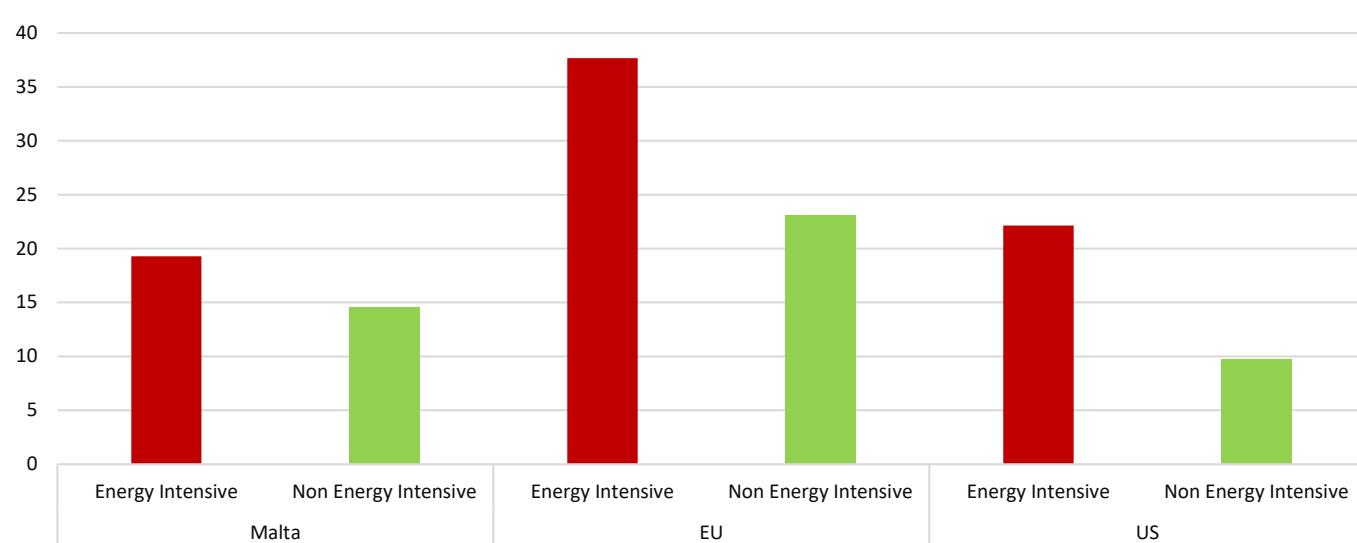
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

MALTA – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



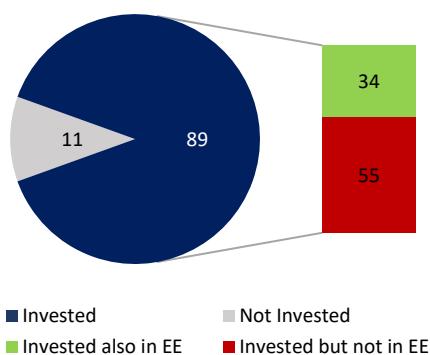
NETHERLANDS – ENERGY EFFICIENCY

Summary

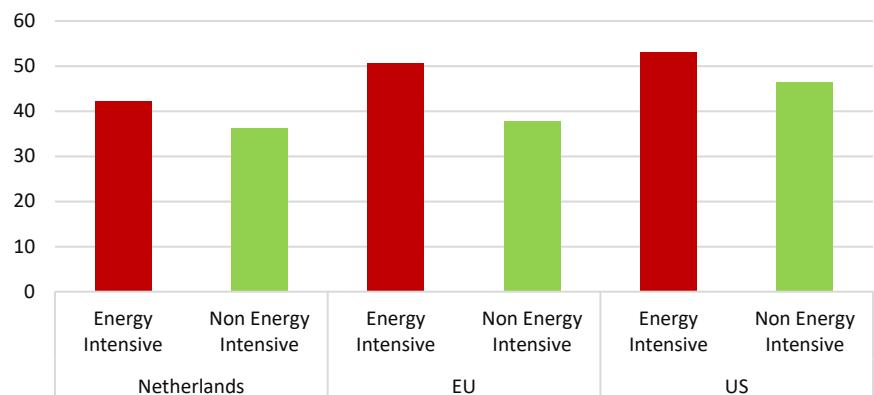
- Less than two fifths of firms that invest in Netherlands, also invest in EE (34% of all firms).
- Firms in Netherlands allocate 8% of their total investment in EE improvements, less than the EU and the US average.
- Firms in Netherlands report two fifths of their building stock to be of high or highest energy efficiency (EE) standards, similar to the EU and compared to a third in the US.
- More than half of the firms surveyed in Netherlands with an energy audit invest in EE improvements.
- Almost two fifths of the firms surveyed in Netherlands had an energy audit in the past three years, similar to the EU and compared to a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Netherlands are more likely to invest in EE improvements when they implement advanced management practices.
- Firms that are more affected by energy costs are more likely to invest in EE improvements.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



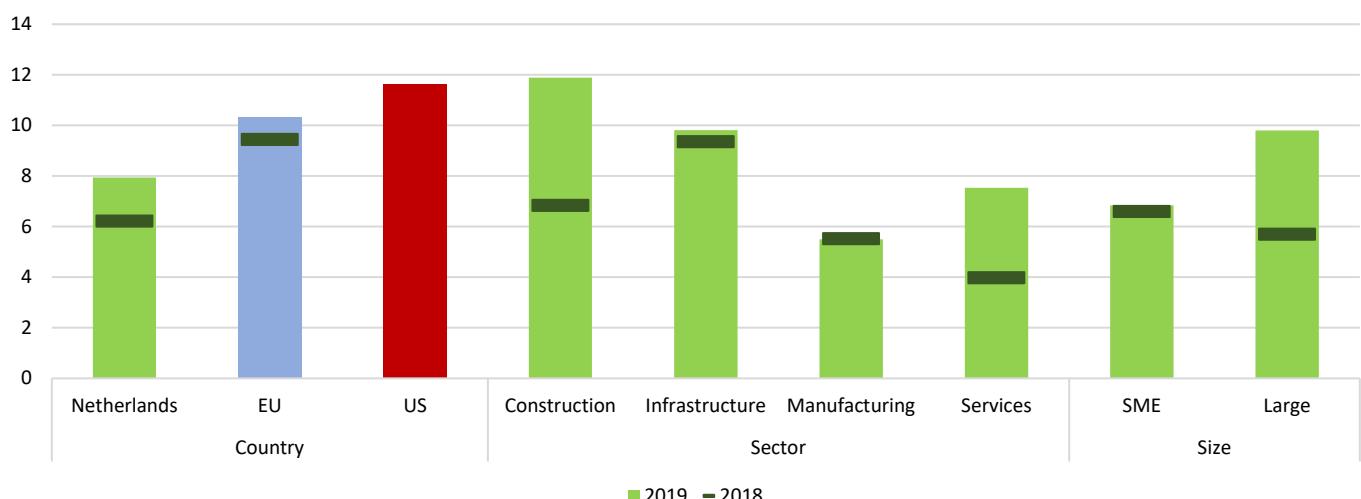
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

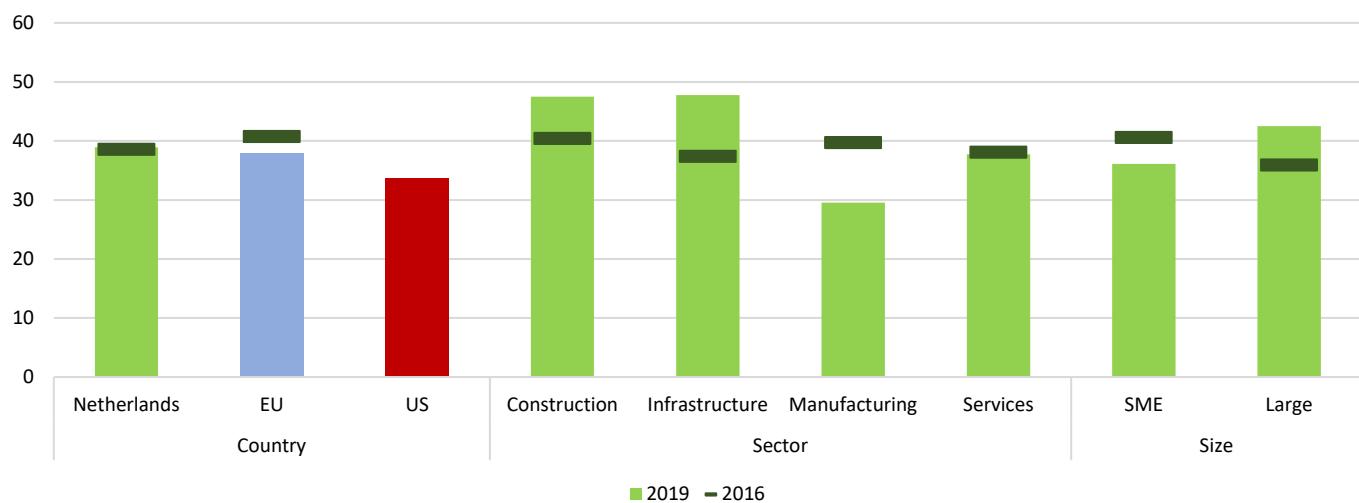
Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)



NETHERLANDS – ENERGY EFFICIENCY

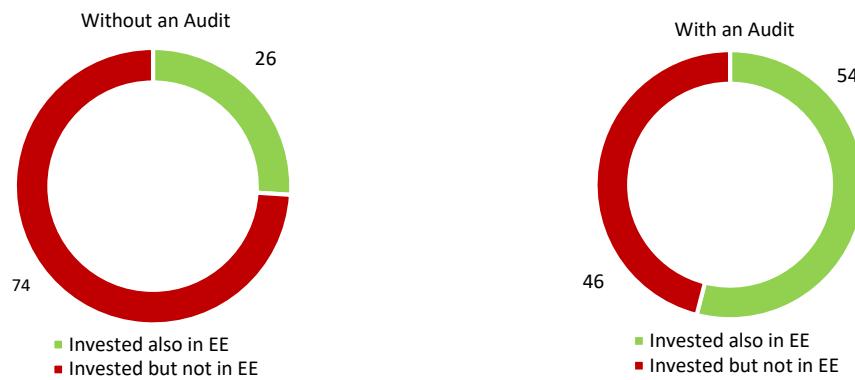
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

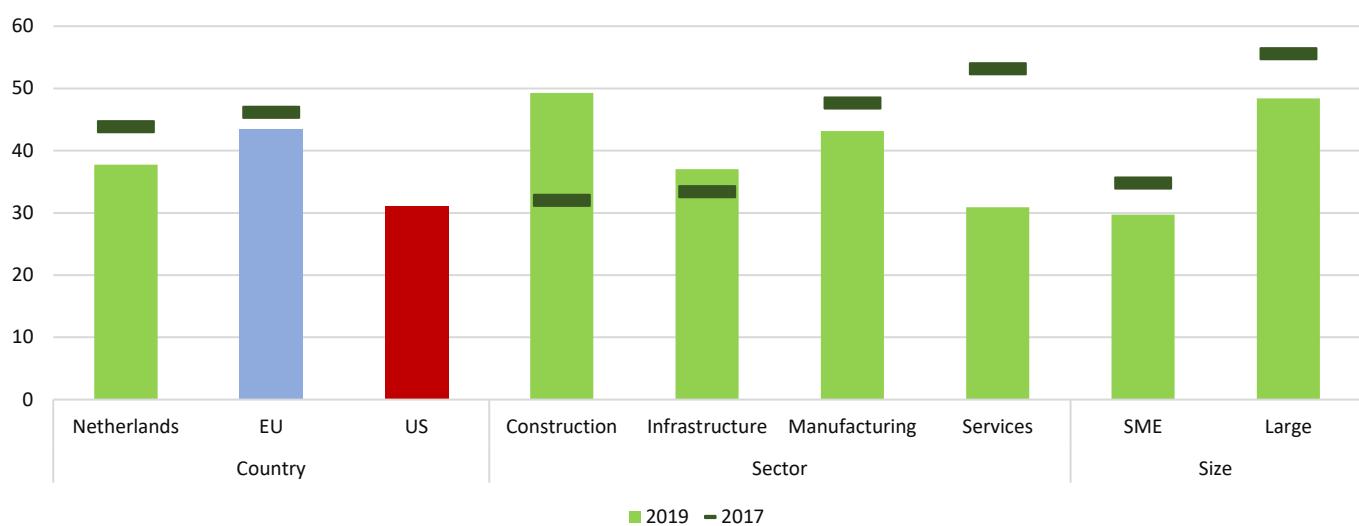
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

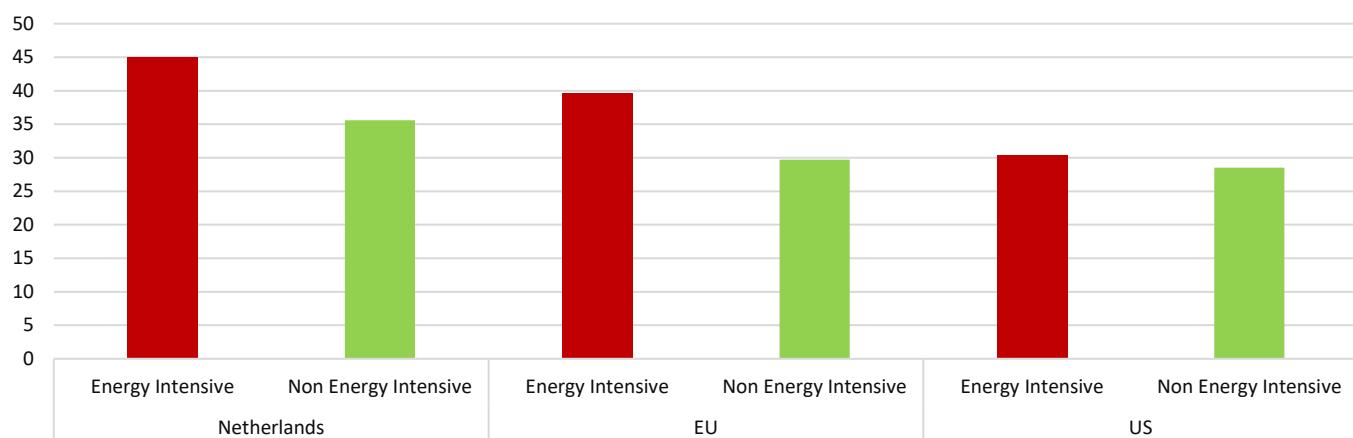
A1. Share of firms with an energy audit in the past three years (%)



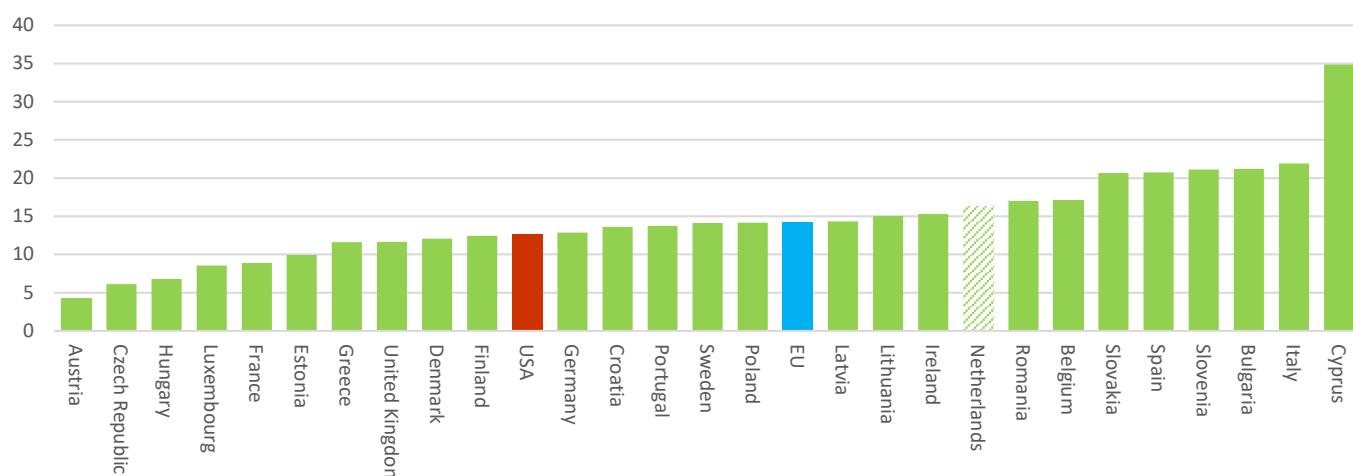
Base: All firms (data not shown for those who said no/don't know/refused)

NETHERLANDS – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

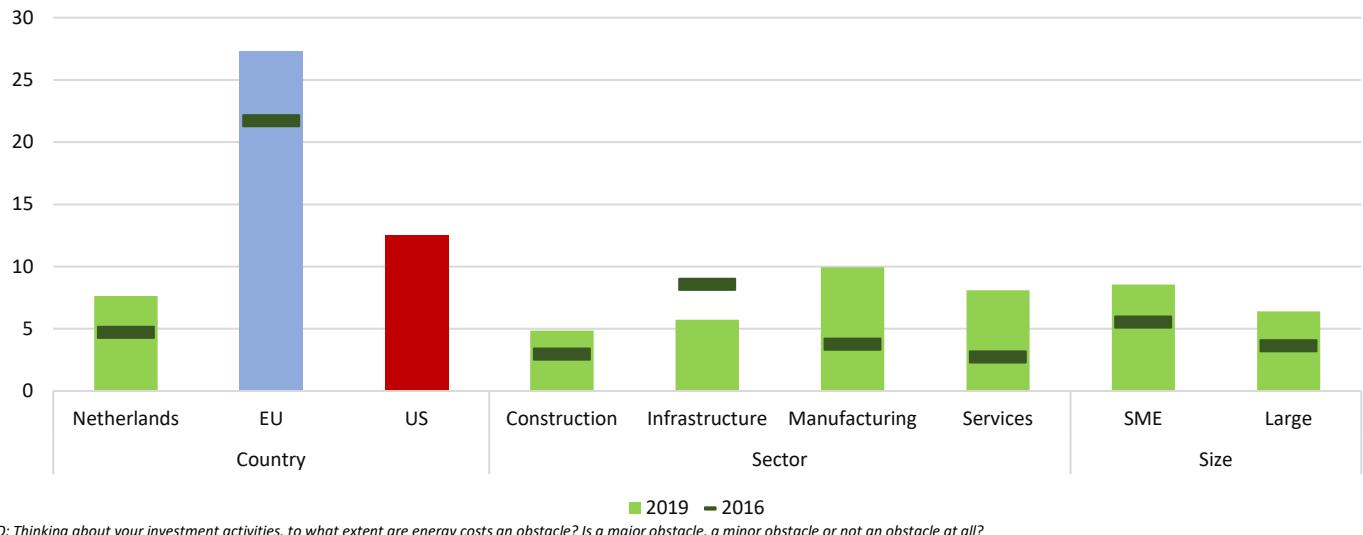
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 9 | 11 | 10 | 9 | 9 |
| Large | 10 | 10 | 12 | 4 | 4 |
| SME | 11 | 10 | 8 | 5 | 5 |
| Services | 13 | 12 | 12 | 2 | 7 |
| Manufacturing | 15 | 16 | 13 | 13 | 8 |
| Infrastructure | 9 | 9 | 11 | 6 | 5 |
| Construction | 5 | 49 | 20 | 10 | 7 |
| Energy Intensive | 22 | 38 | 10 | 8 | 8 |
| Non Energy Intensive | 10 | 42 | 8 | 4 | 8 |

● Invested also in EE ● Invested but not in EE

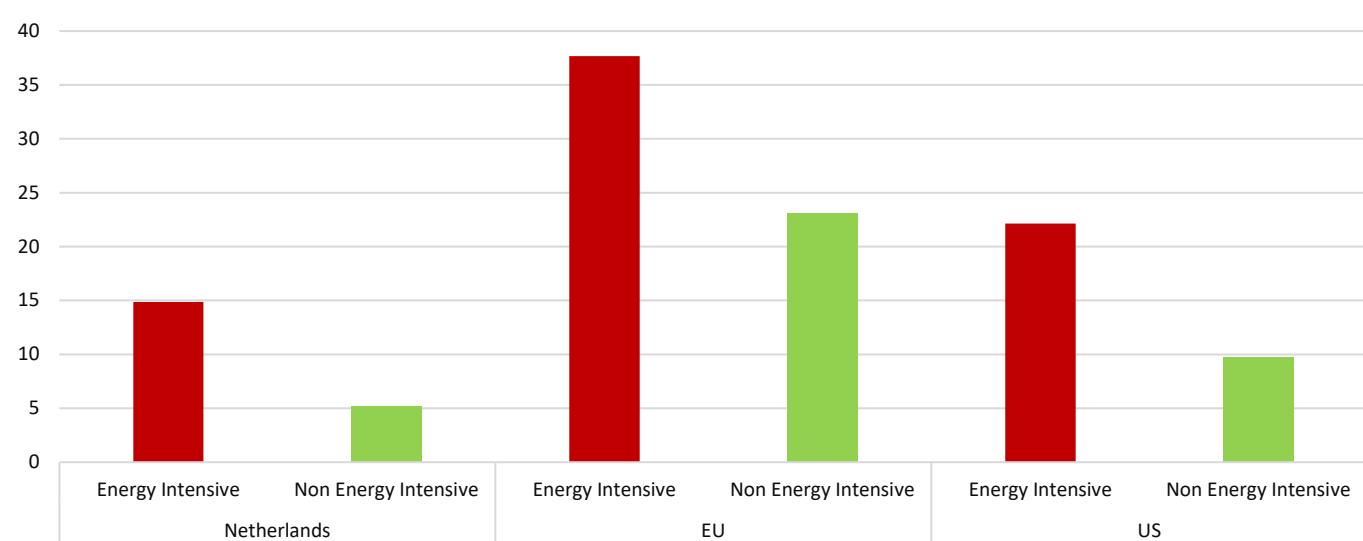
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

NETHERLANDS – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



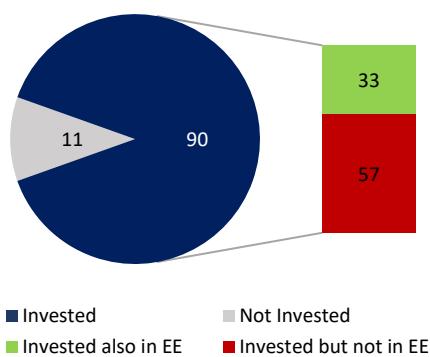
POLAND – ENERGY EFFICIENCY

Summary

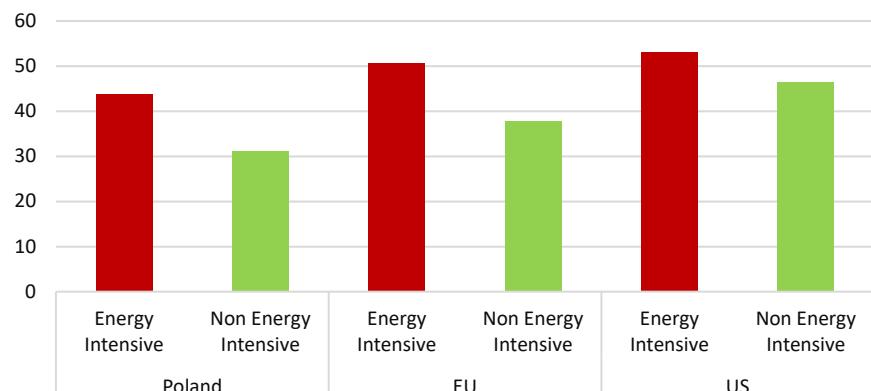
- Almost two fifths of firms that invest in Poland, also invest in EE (33% of all firms).
- Firms in Poland allocate 7% of their total investment in EE improvements, less than the EU and the US average. This proportion is higher in energy intensive sectors such as infrastructure.
- Firms in Poland report a fifth of their building stock to be of high or highest energy efficiency (EE) standards, a share significantly below that of EU and US counterparts (two fifths and a third, respectively).
- Almost half of the firms surveyed in Poland with an energy audit invest in EE improvements.
- More than half of the firms surveyed in Poland had an energy audit in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Poland are more likely to invest in EE improvements when they implement advanced management practices.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



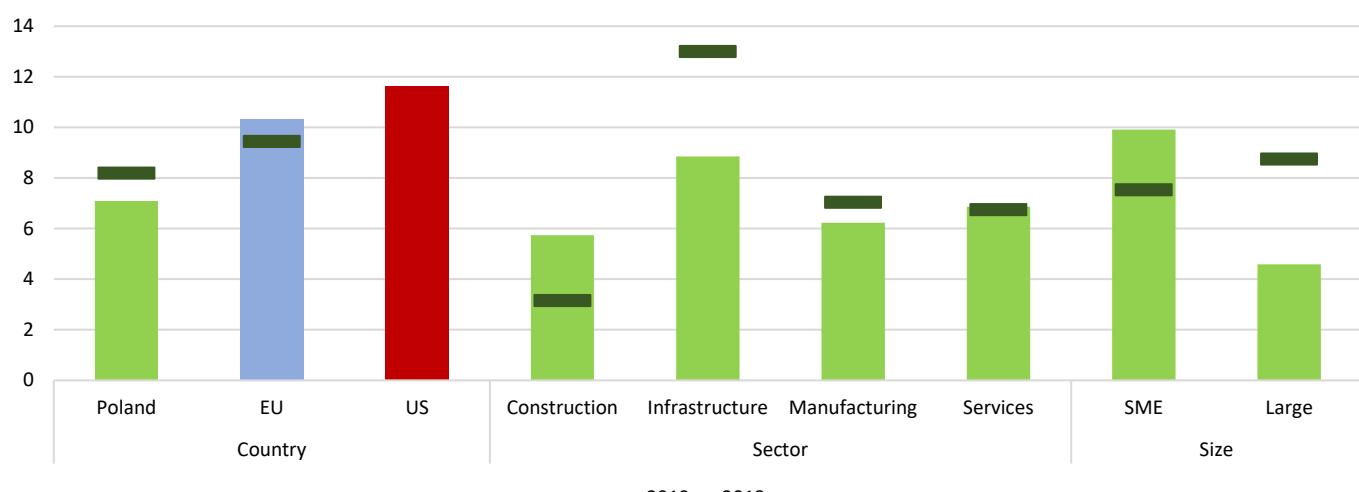
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

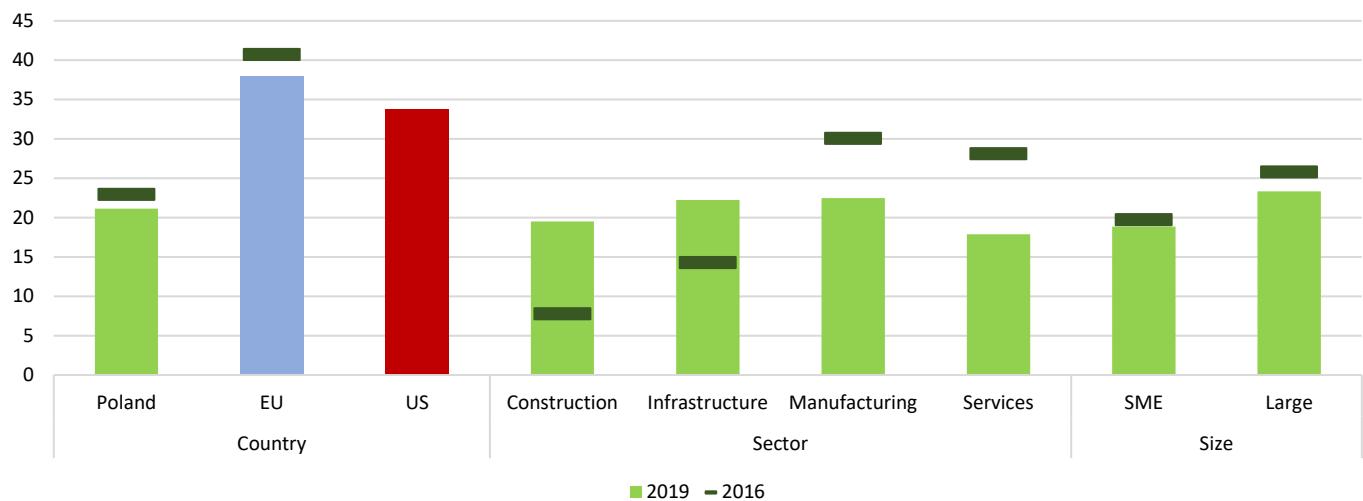


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

POLAND – ENERGY EFFICIENCY

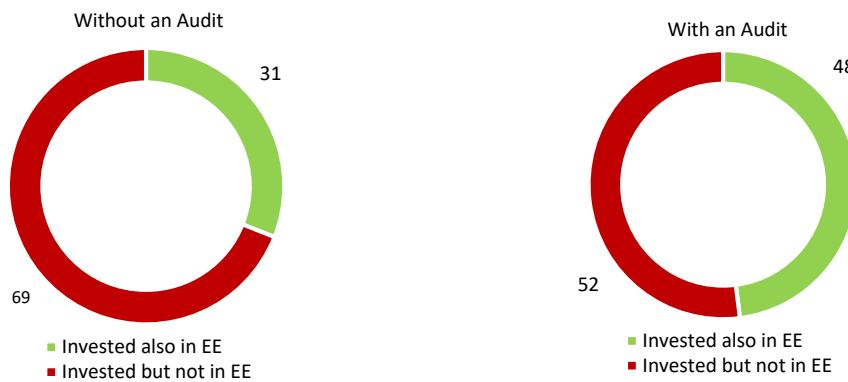
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

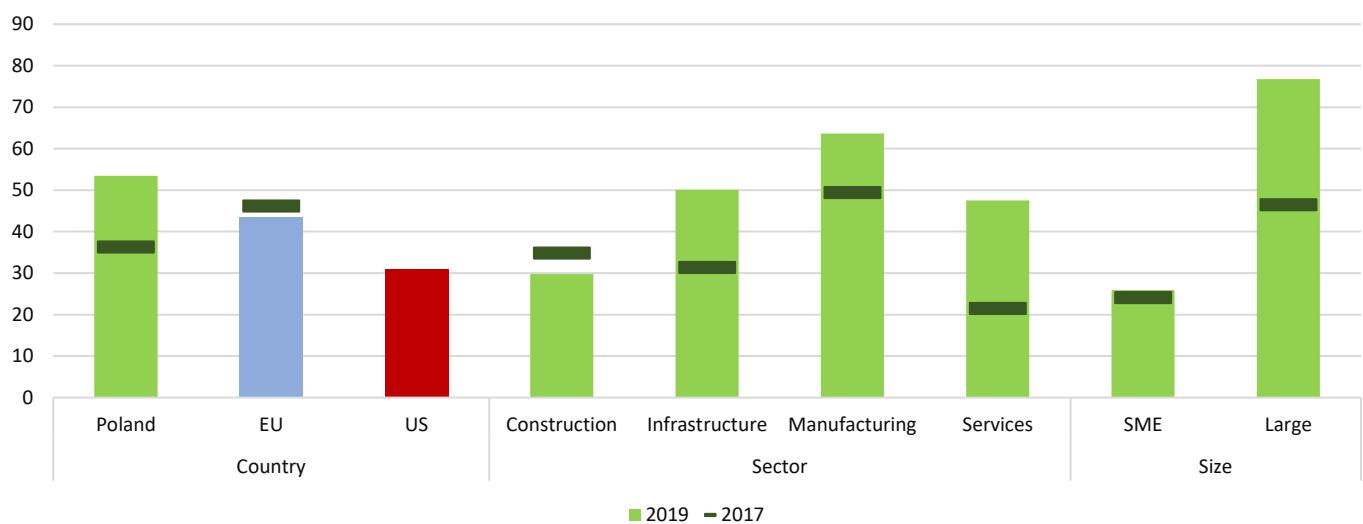
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

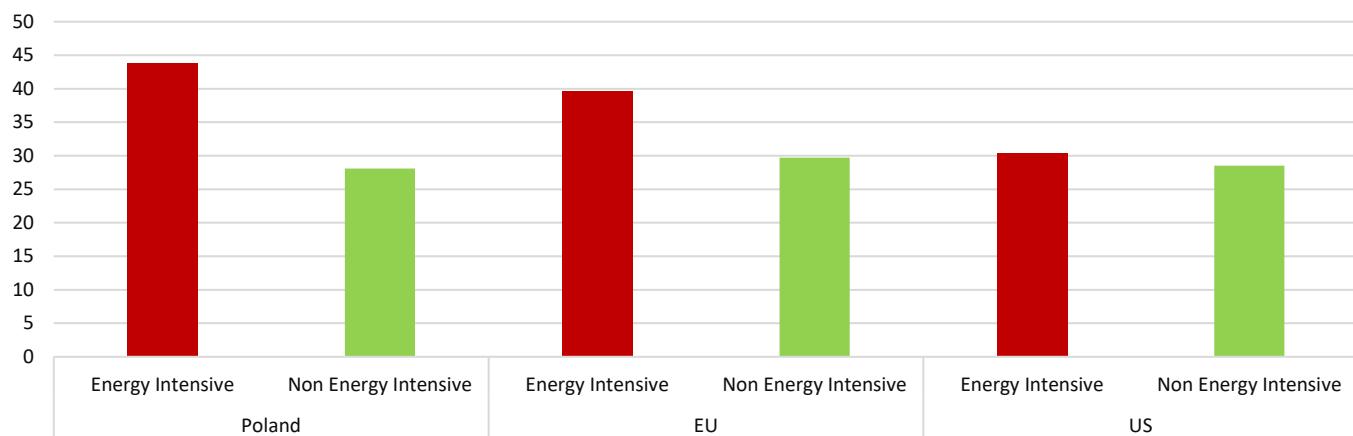
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

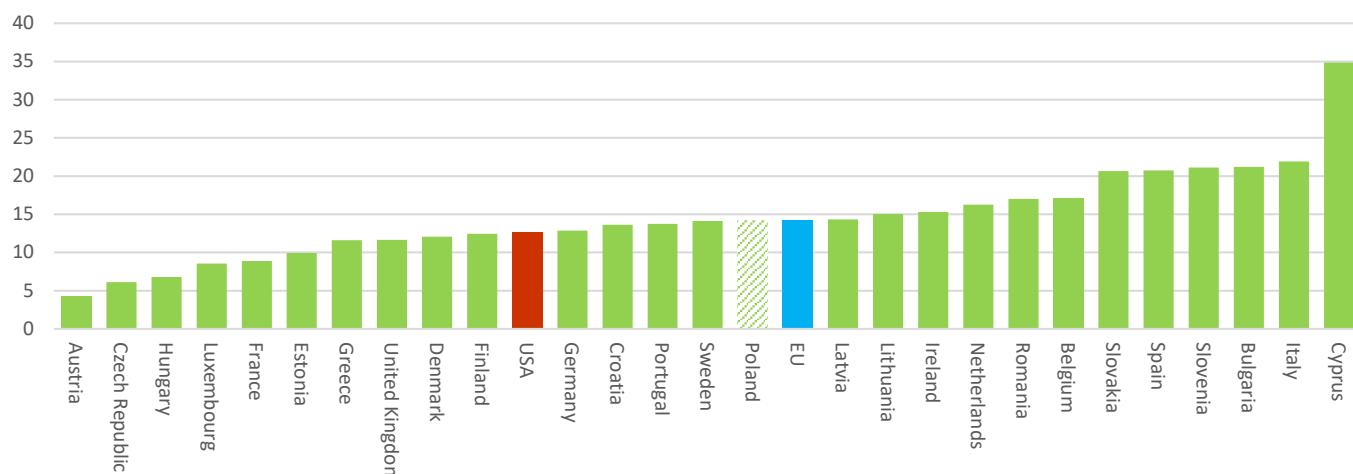
POLAND – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)*

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

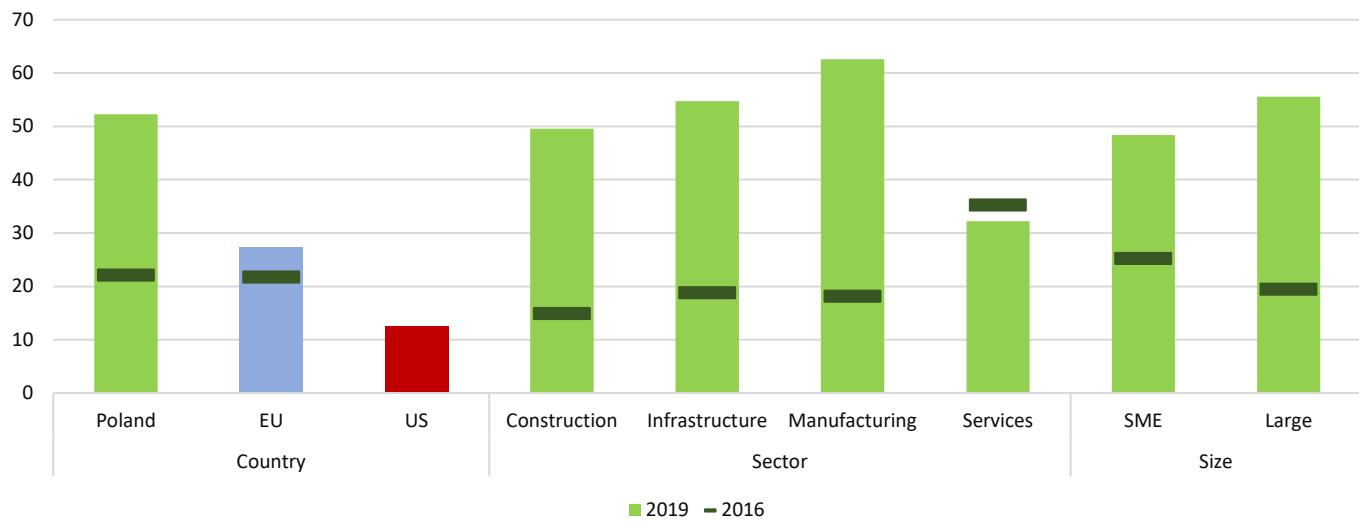
C. Long term barriers to investment



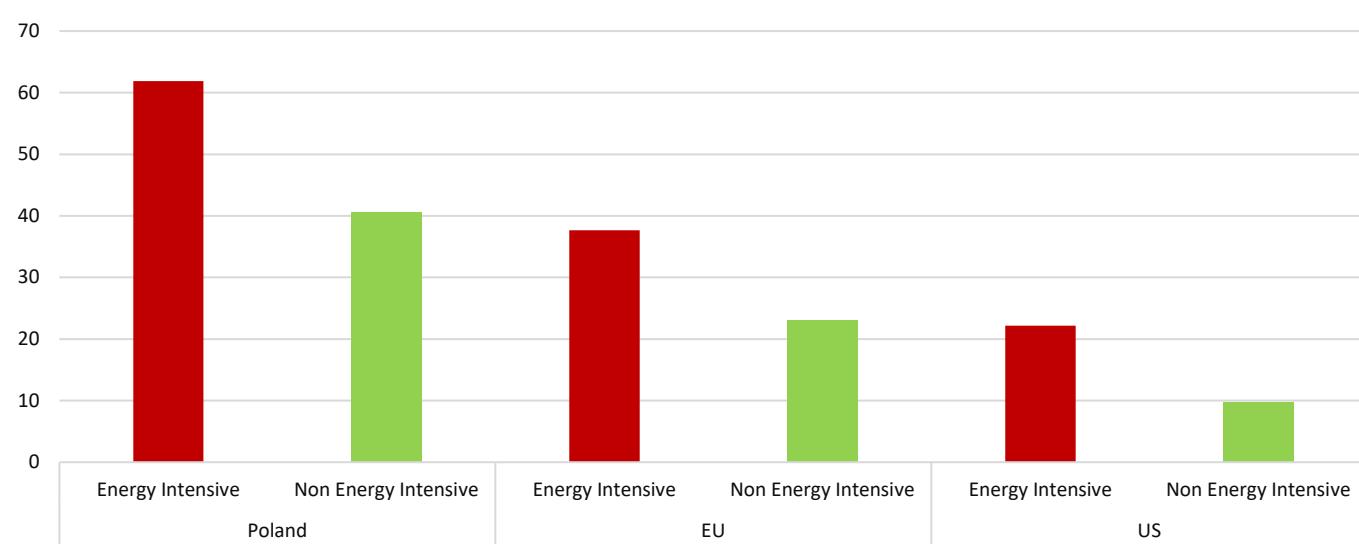
*Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)*

POLAND – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



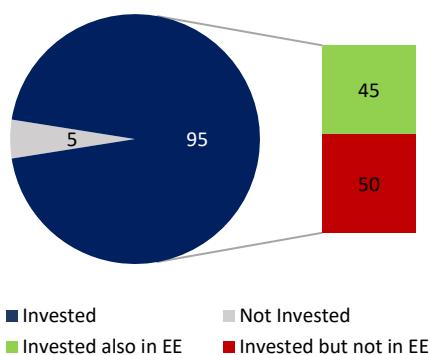
PORUGAL – ENERGY EFFICIENCY

Summary

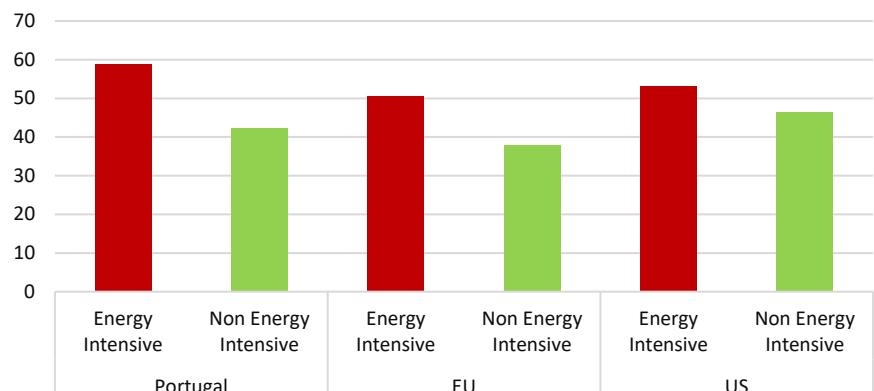
- Half of firms that invest in Portugal, also invest in EE (45% of all firms). This share jumps to 60% for the energy intensive sectors.
- Firms in Portugal allocate more than *a tenth of their total investment in EE improvements*, similar to the EU and the US average. This proportion is higher in energy intensive sectors such as infrastructure.
- Firms in Portugal report *more than a third* of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and similar to the US.
- Two thirds* of the firms surveyed in Portugal with an **energy audit invest in EE improvements**.
- More than two fifths* of the firms surveyed in Portugal had an **energy audit** in the past three years, similar to the EU and compared to a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Portugal are *more likely* to **invest in EE improvements when they implement advanced management practices**.
- Firms that are *more affected by energy costs* are *more likely* to **invest in EE improvements**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



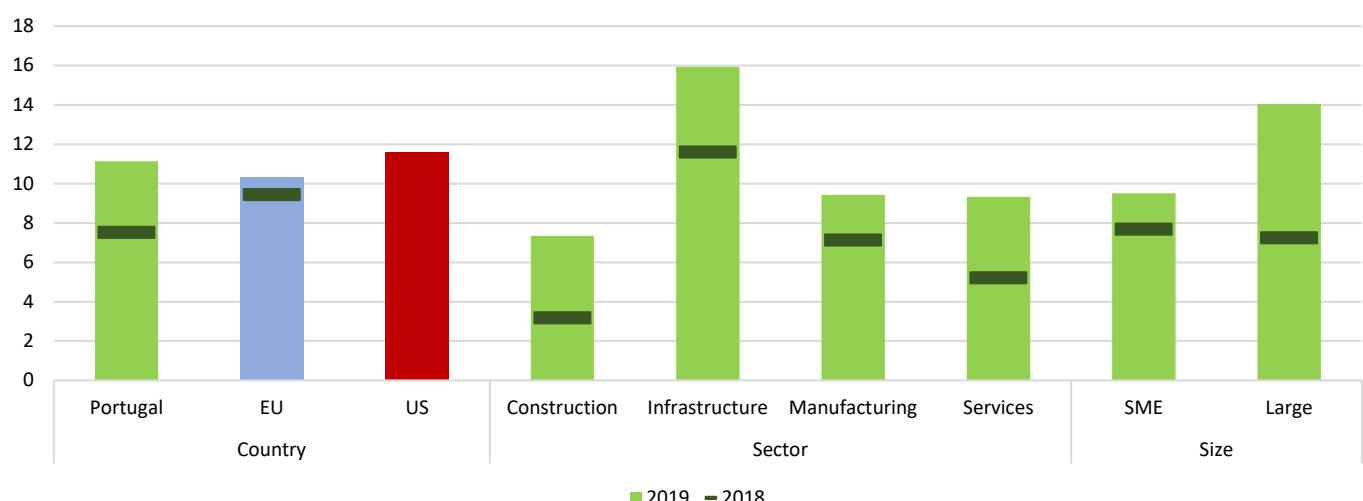
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

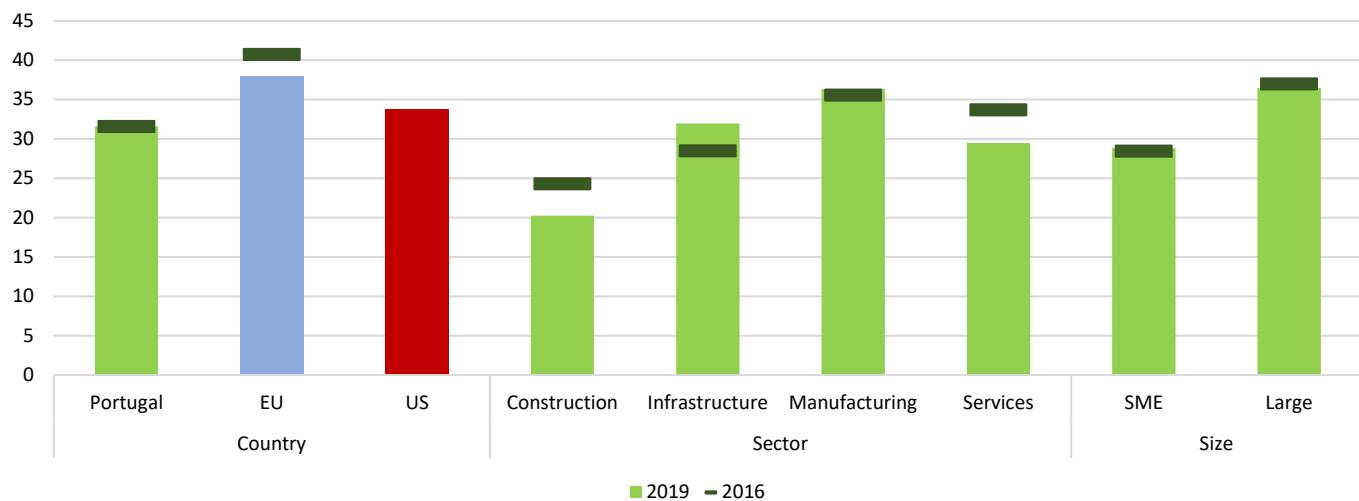


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

PORUGAL – ENERGY EFFICIENCY

D. Perceived share of building stock of high or highest energy efficiency standards (%)

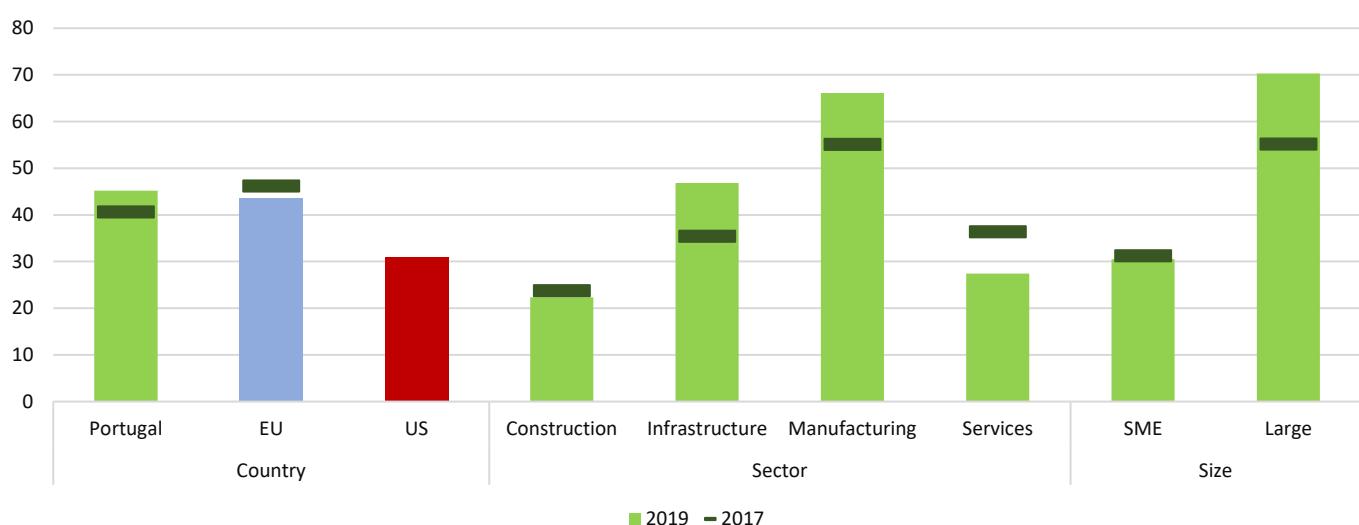


Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions

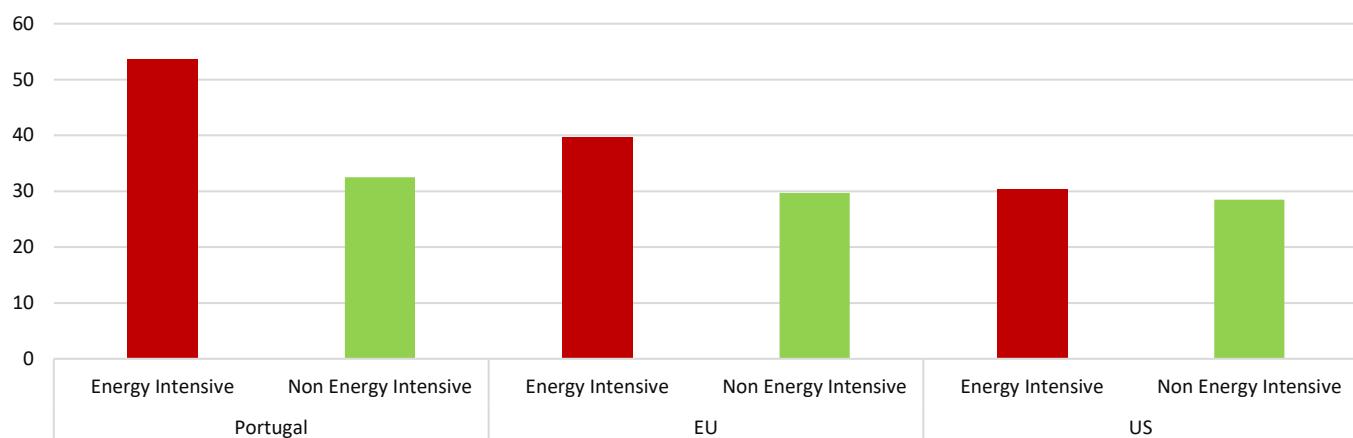


A1. Share of firms with an energy audit in the past three years (%)



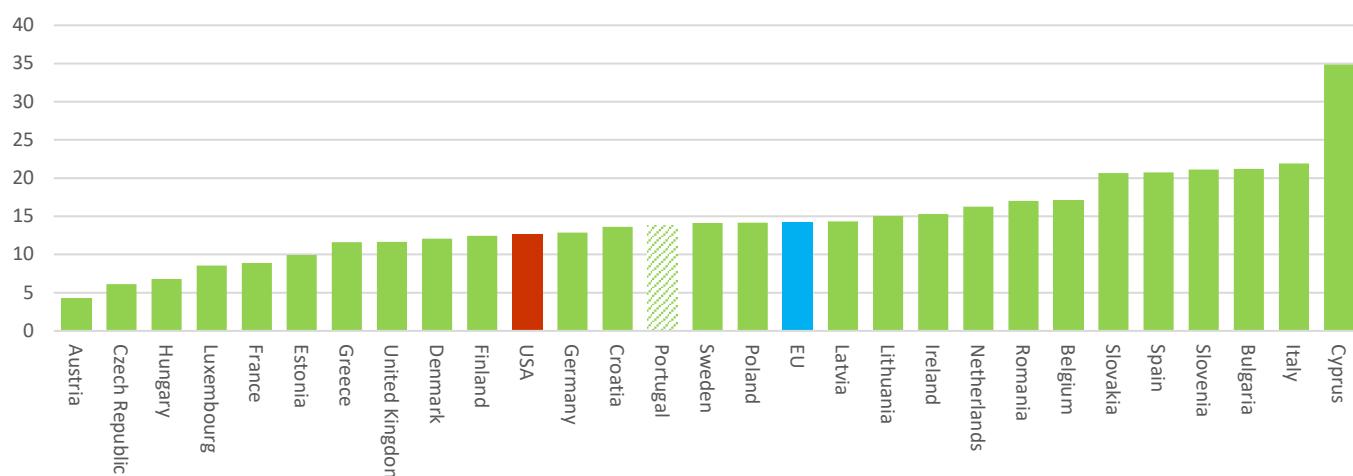
PORUGAL – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

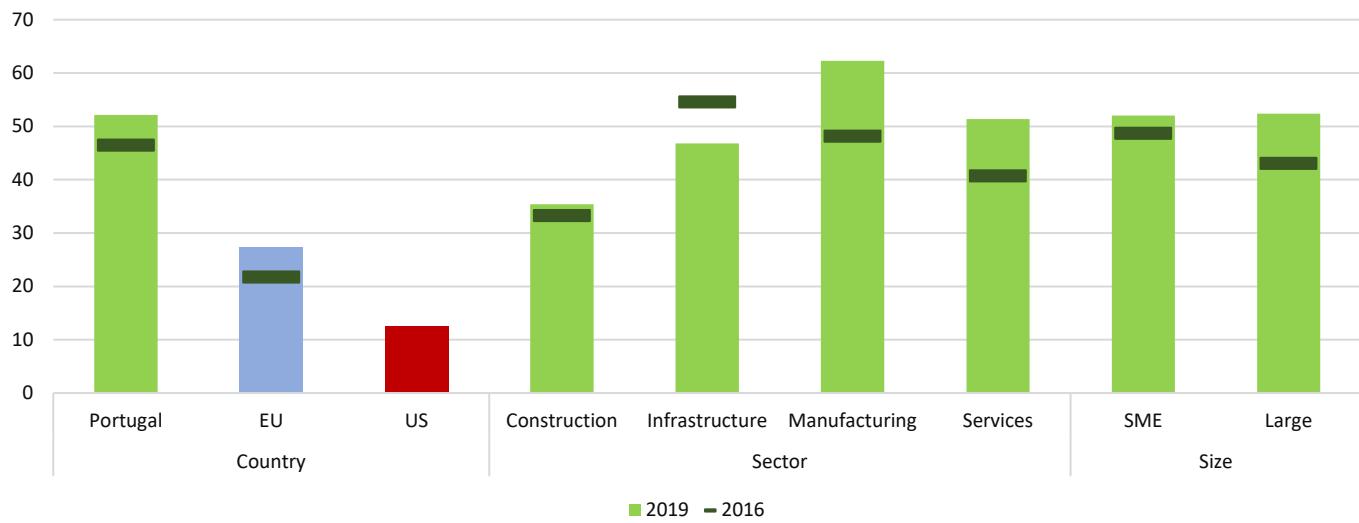
C. Long term barriers to investment



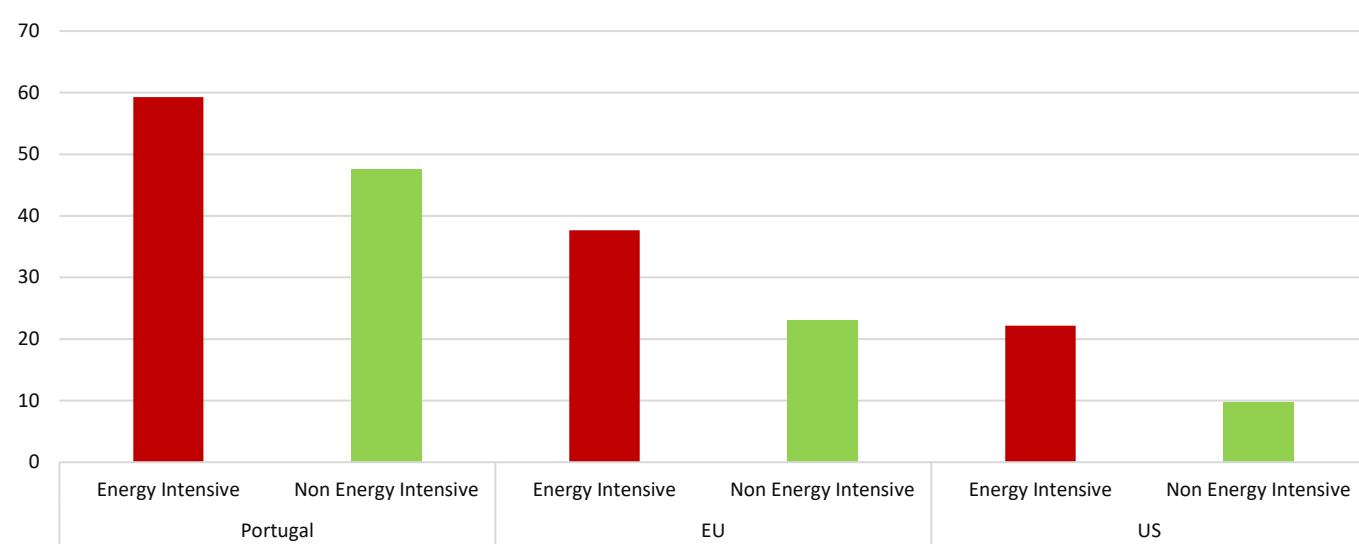
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

PORUGAL – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



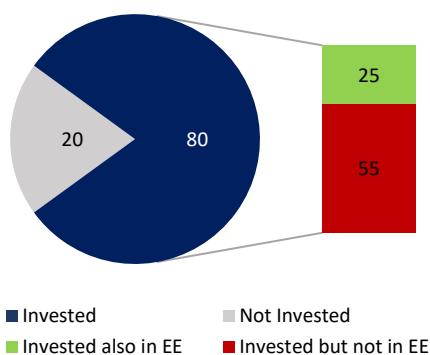
ROMANIA – ENERGY EFFICIENCY

Summary

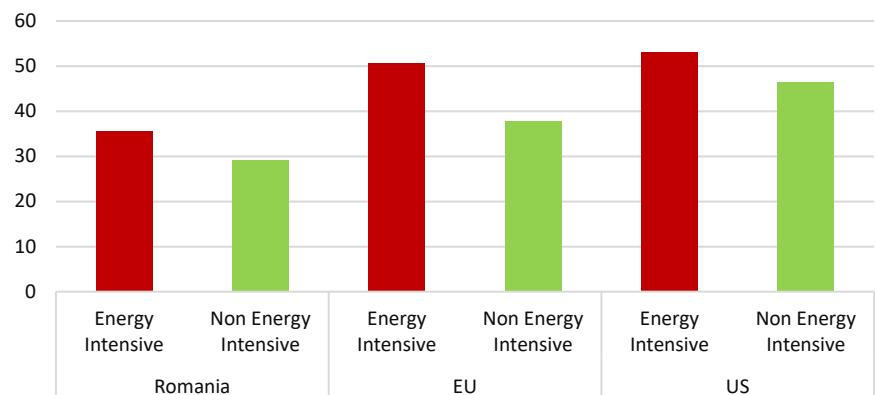
- A third of firms that invest in Romania, also **invest in EE** (25% of all firms).
- Firms in Romania allocate **a tenth of their total investment in EE improvements**, similar to the EU and less than the US average.
- Firms in Romania report **a third** of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and similar to the US.
- **Half** of the firms surveyed in Romania with an **energy audit** **invest in EE improvements**.
- **More than a third** of the firms surveyed in Romania had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Romania are **more likely** to **invest in EE improvements** when they implement **advanced management practices**.
- Firms that are **more affected by energy costs** are **more likely** to **invest in EE improvements**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



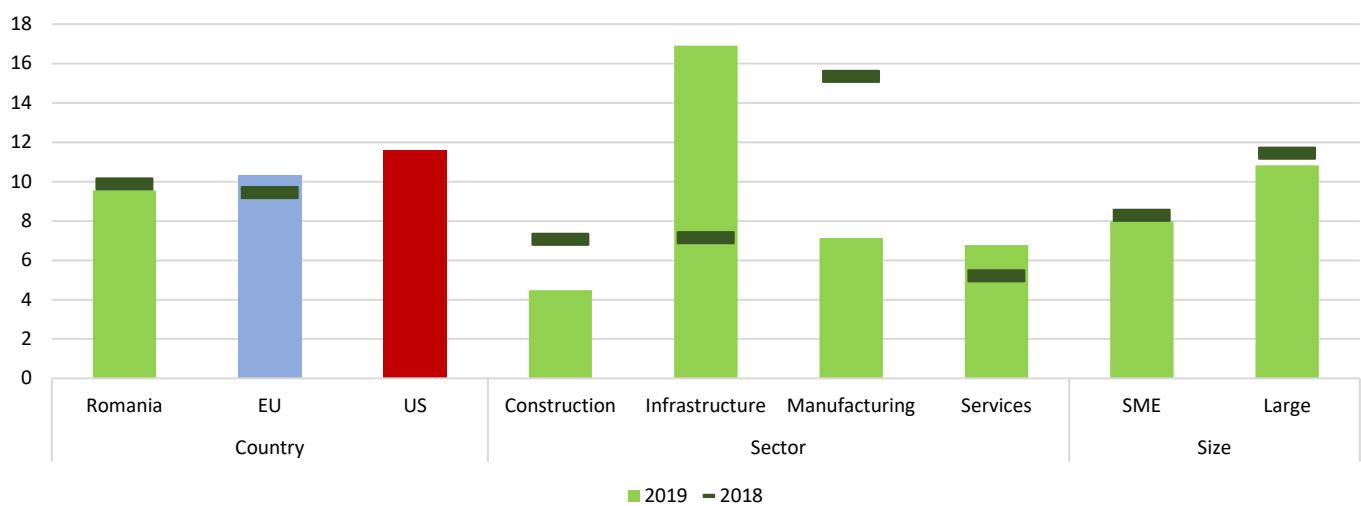
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

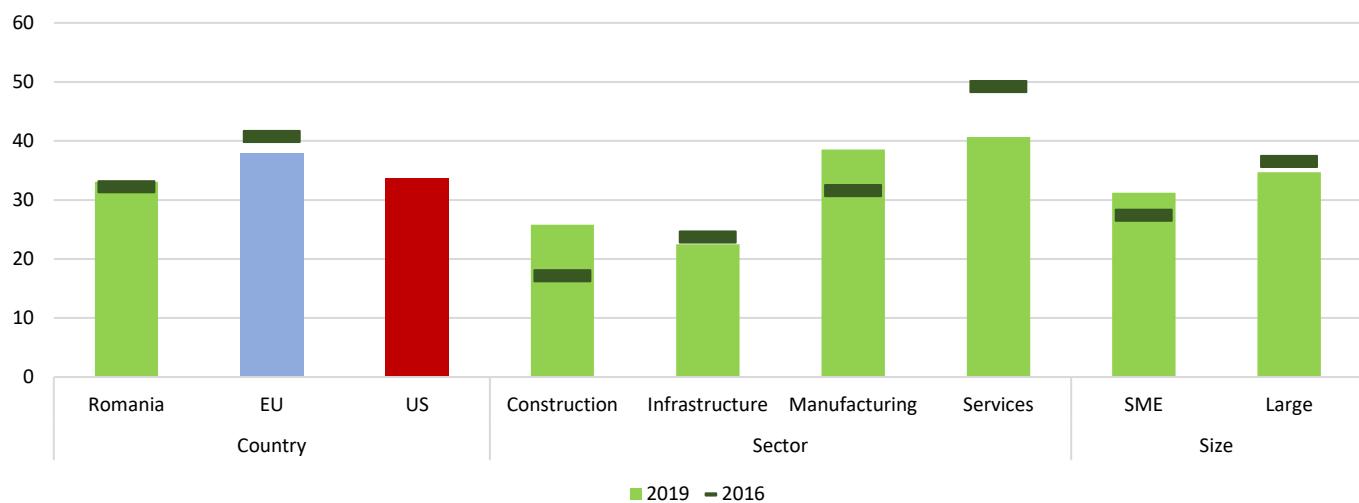


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

ROMANIA – ENERGY EFFICIENCY

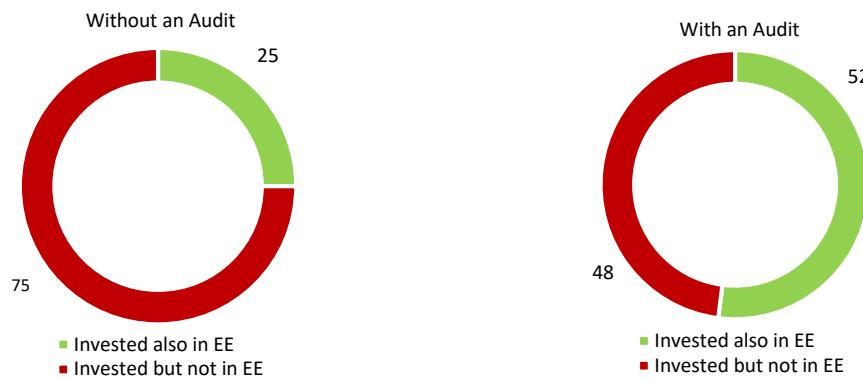
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

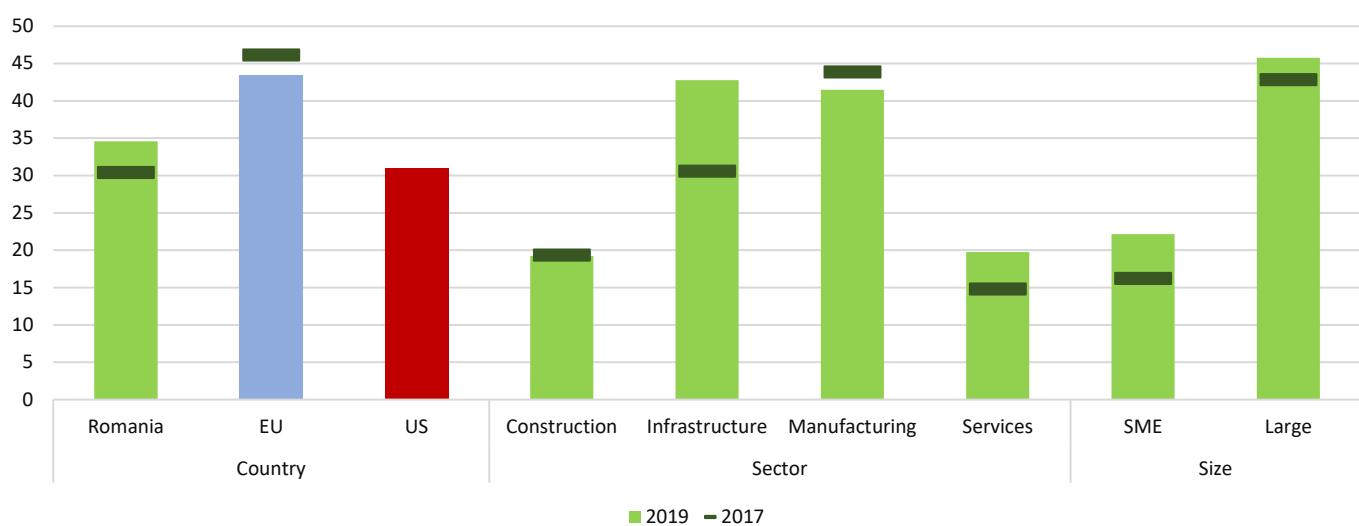
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

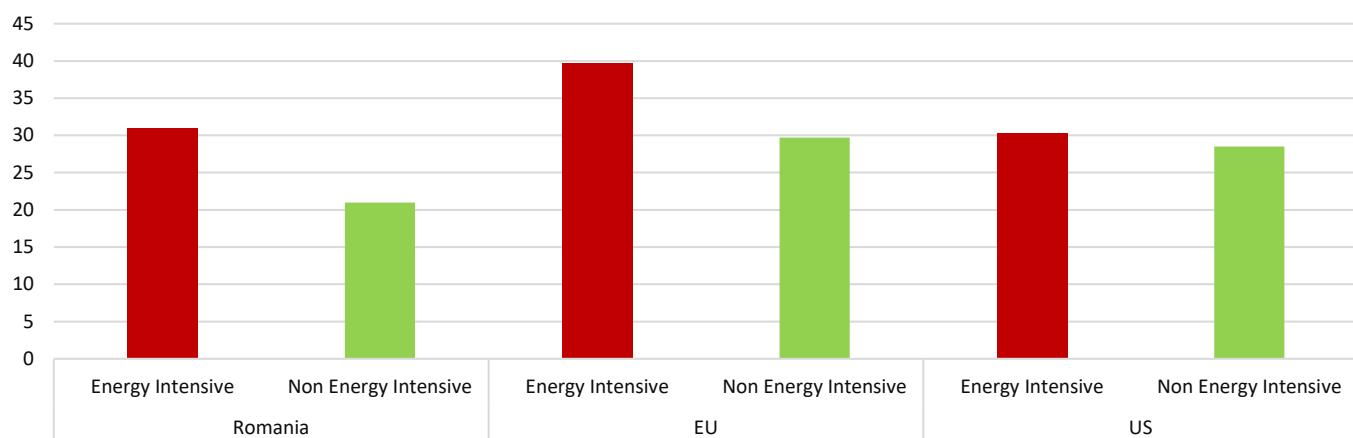
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

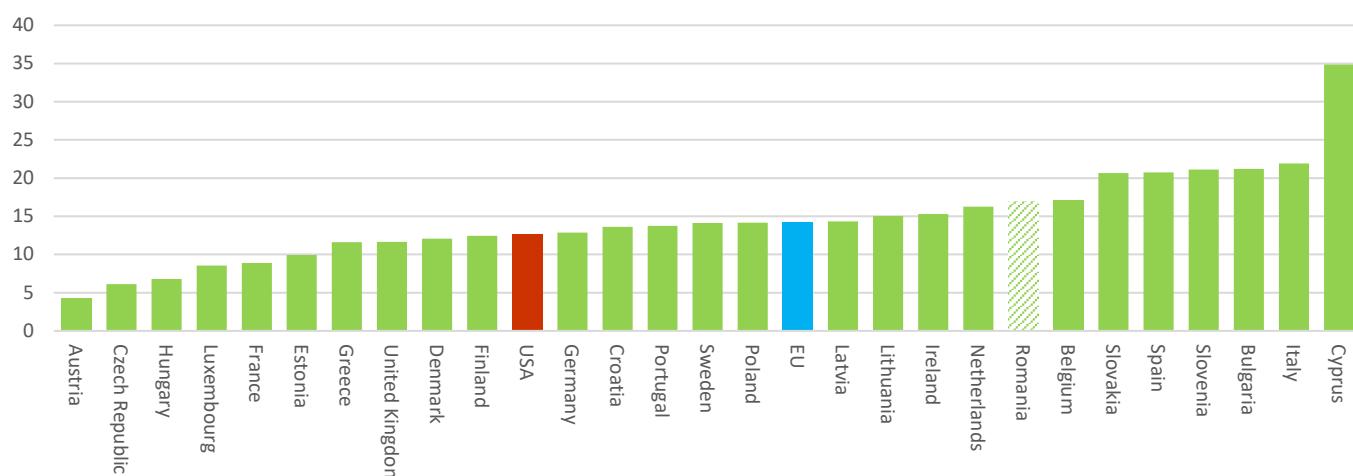
ROMANIA – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



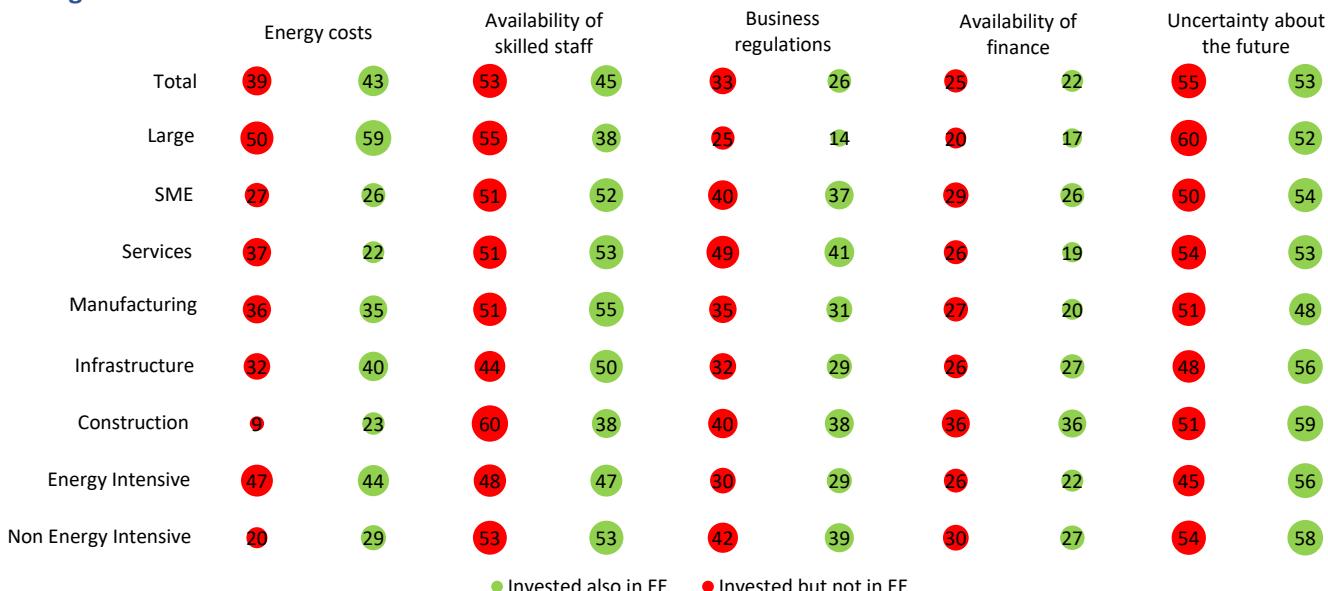
Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

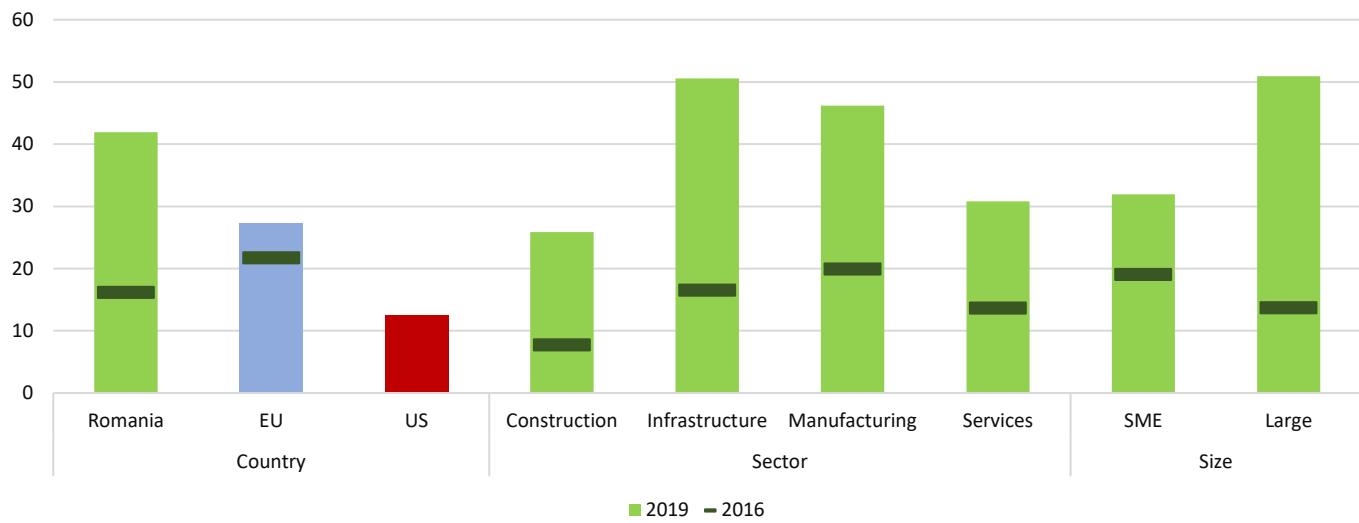
C. Long term barriers to investment



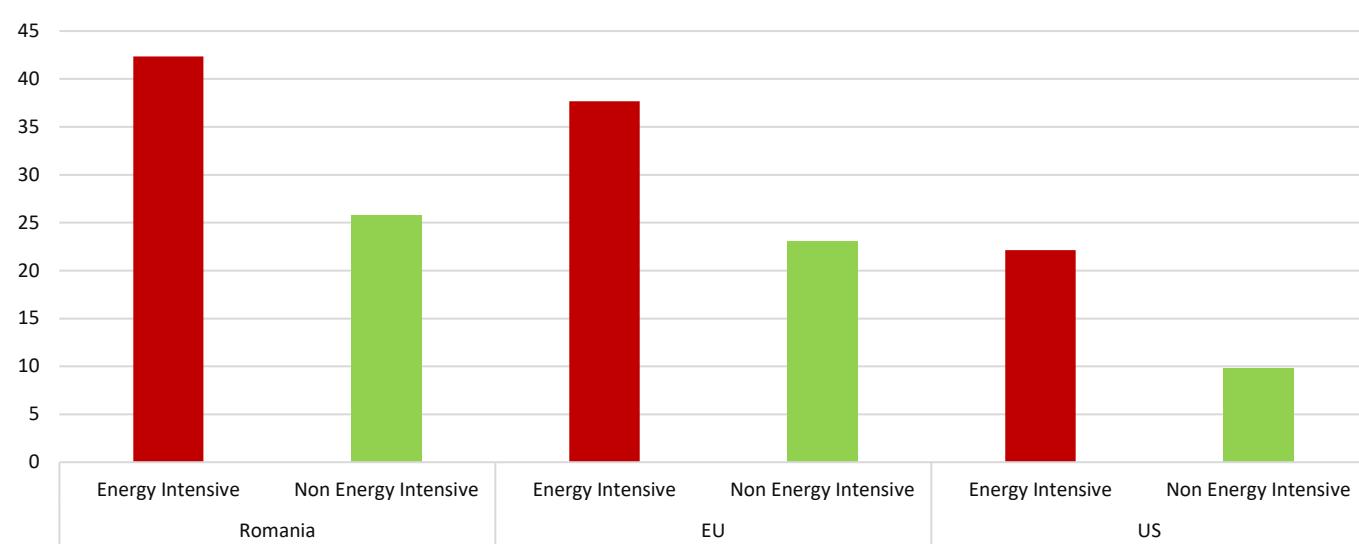
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

ROMANIA – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



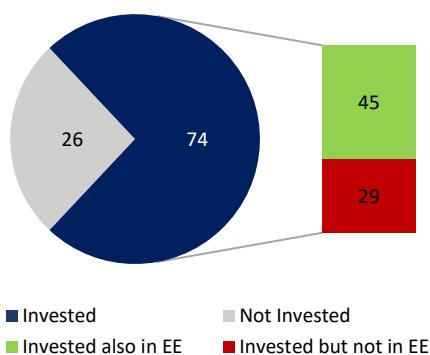
SLOVAKIA – ENERGY EFFICIENCY

Summary

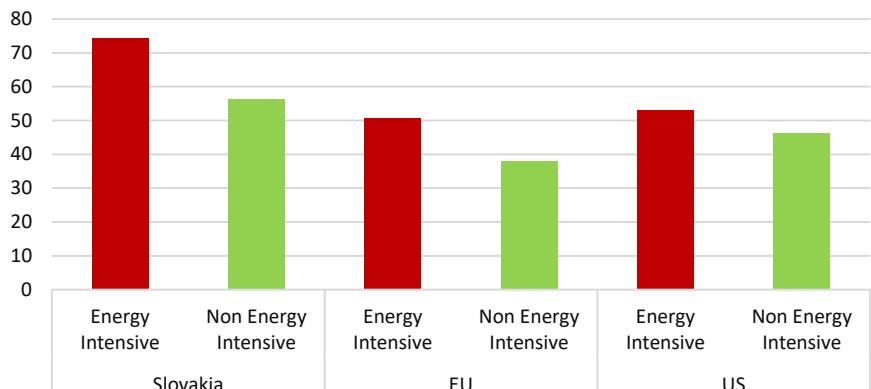
- *Three fifths* of firms that invest in Slovakia, also **invest in EE** (45% of all firms). This share jumps to 74% for the energy intensive sectors.
- Firms in Slovakia allocate almost **15% of their total investment in EE improvements**, more than the EU and the US average. This proportion is higher in energy intensive sectors such as infrastructure.
- Firms in Slovakia report **two fifths** of their **building stock to be of high or highest energy efficiency (EE) standards**, similar to the EU and compared to a third in the US.
- **Three fourths** of the firms surveyed in Slovakia with an **energy audit invest in EE improvements**.
- **More than a third** of the firms surveyed in Slovakia had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size.
- Firms in Slovakia are **more likely to invest in EE improvements when they implement advanced management practices**.
- Firms that are **more affected by energy costs are more likely to invest in EE improvements**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



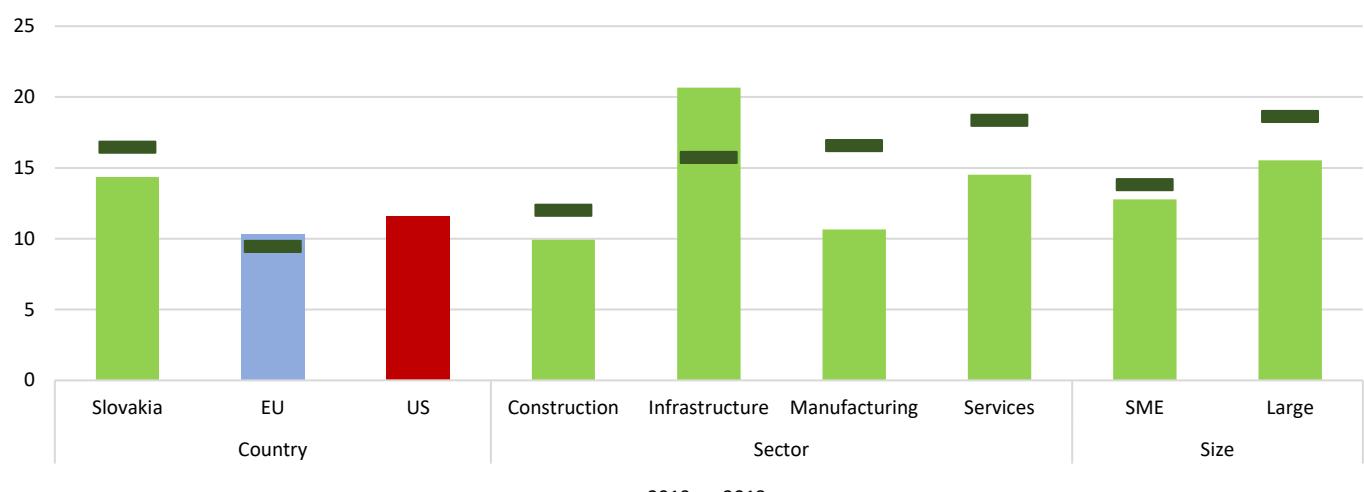
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

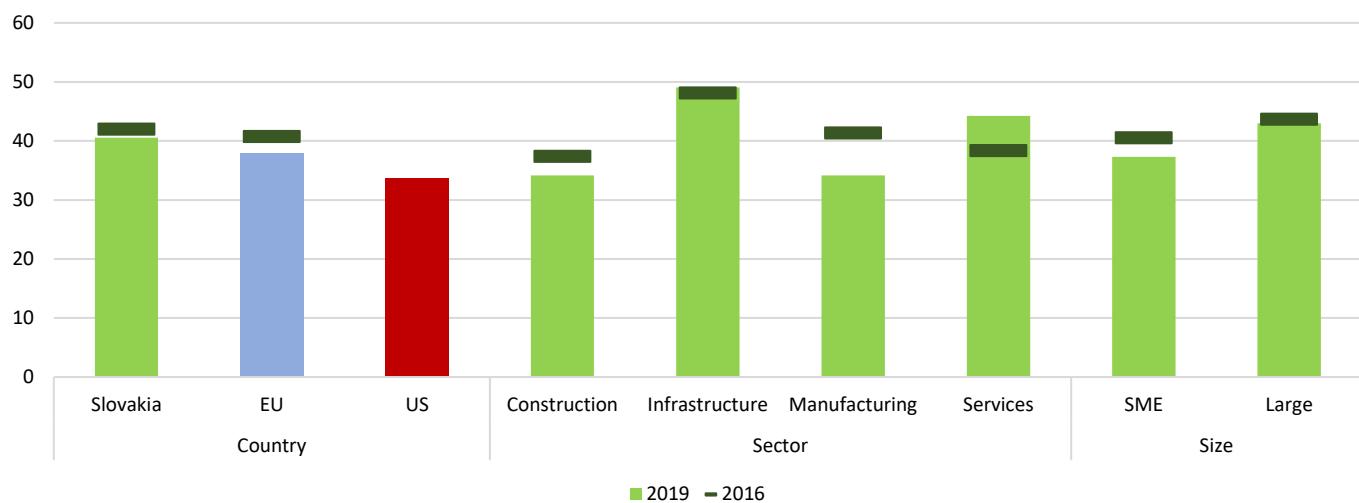


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

SLOVAKIA – ENERGY EFFICIENCY

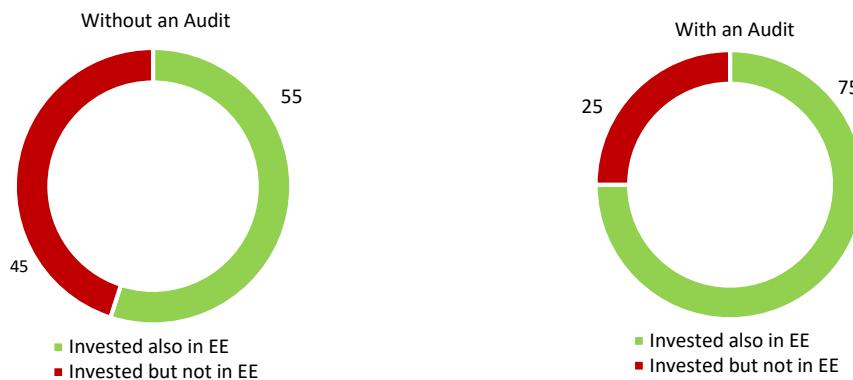
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

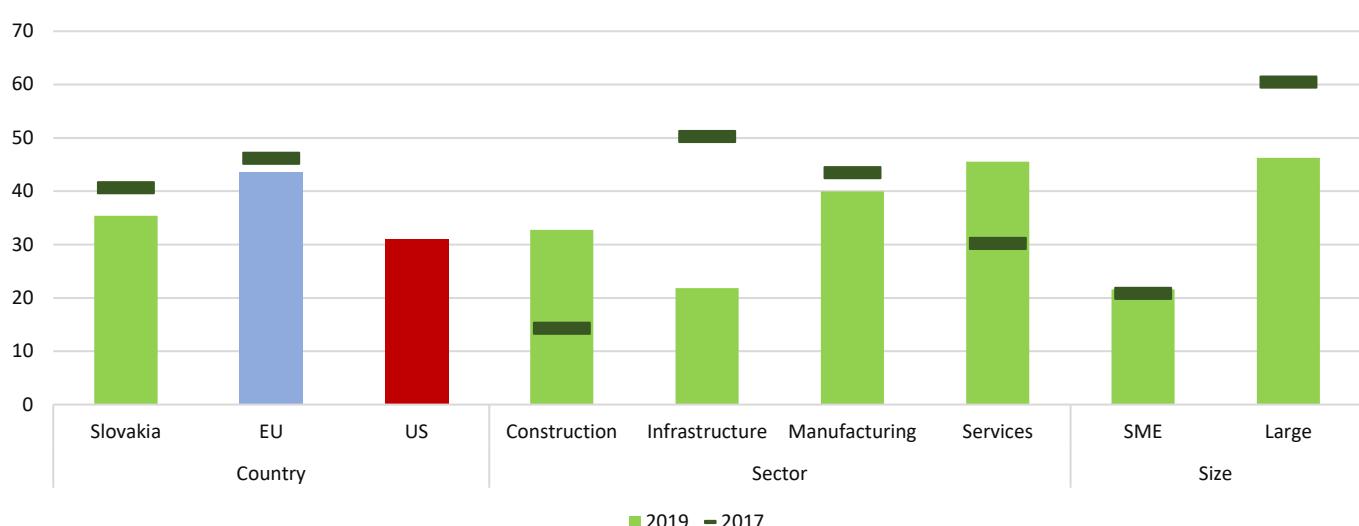
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

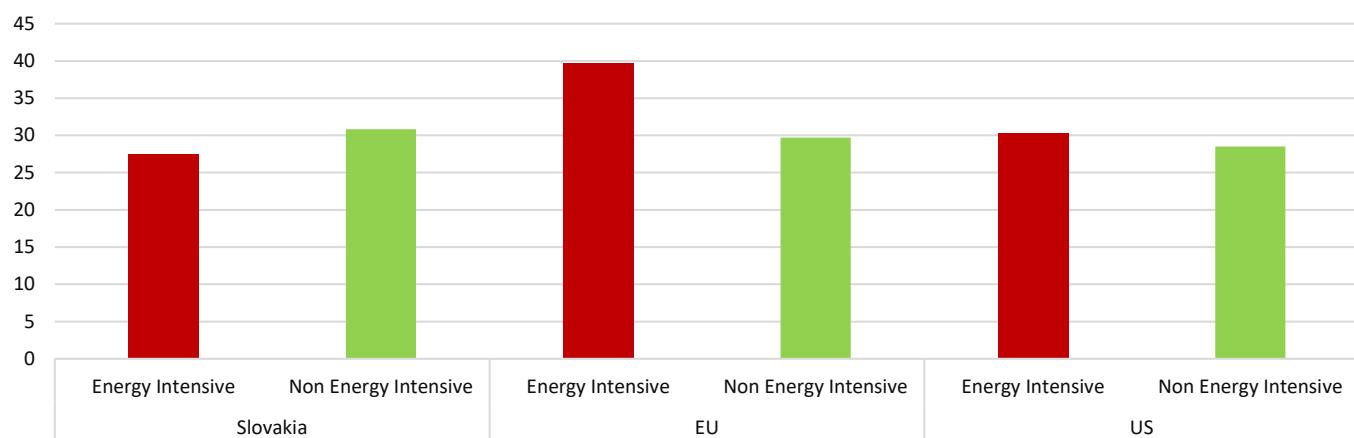
A1. Share of firms with an energy audit in the past three years (%)



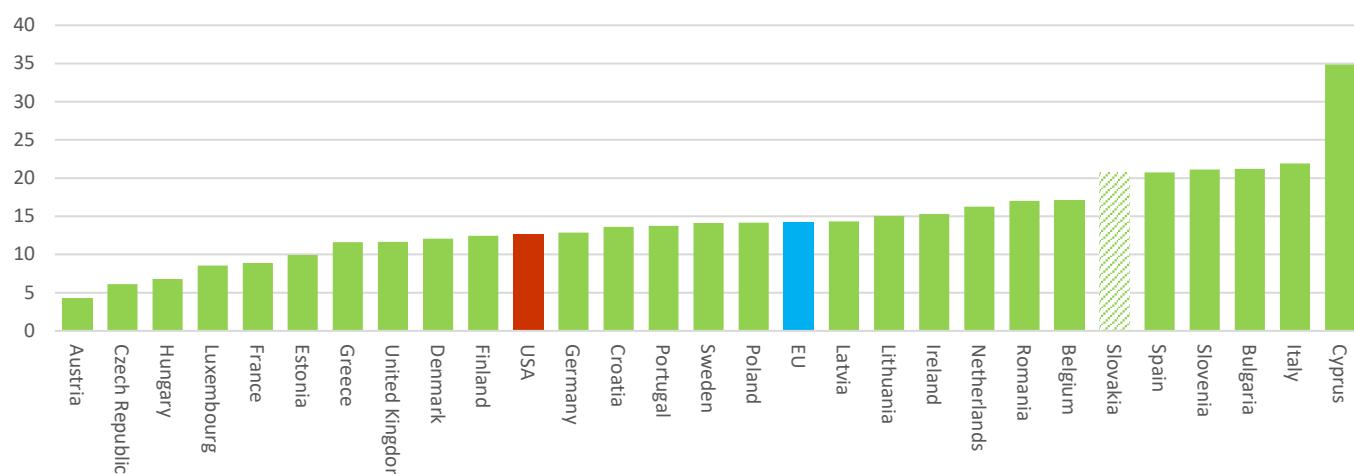
Base: All firms (data not shown for those who said no/don't know/refused)

SLOVAKIA – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity

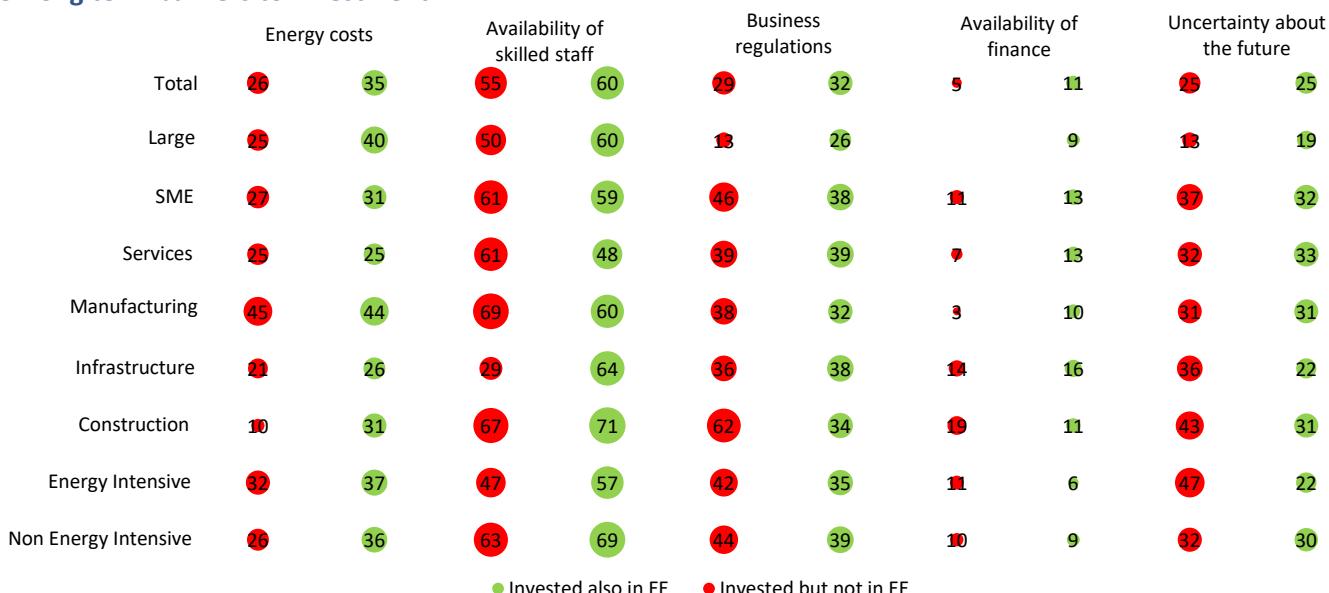


B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

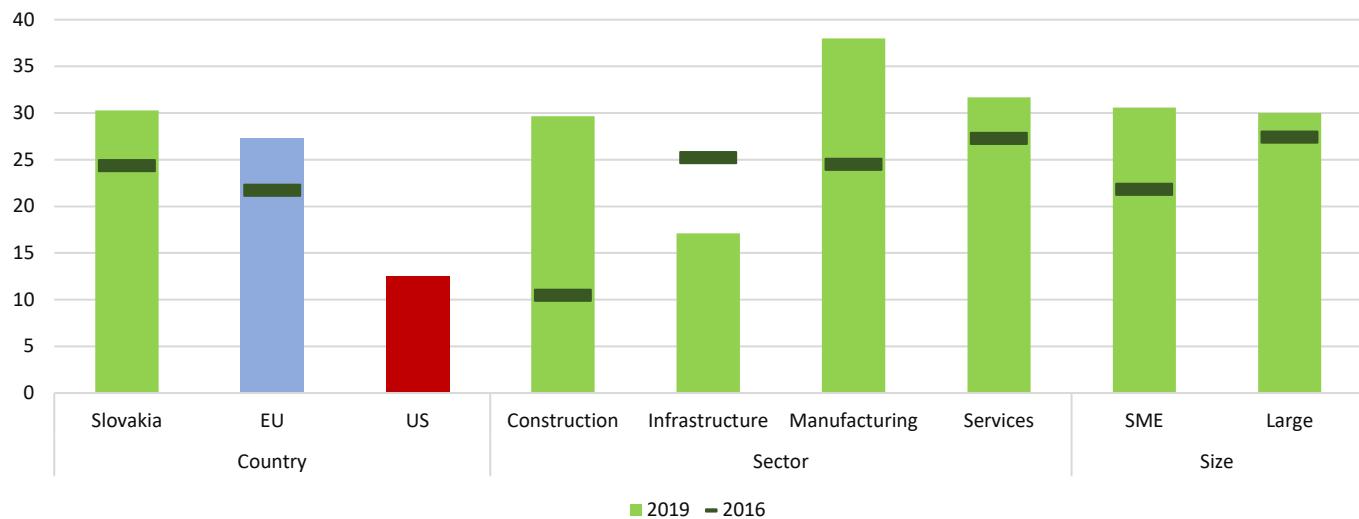


Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?

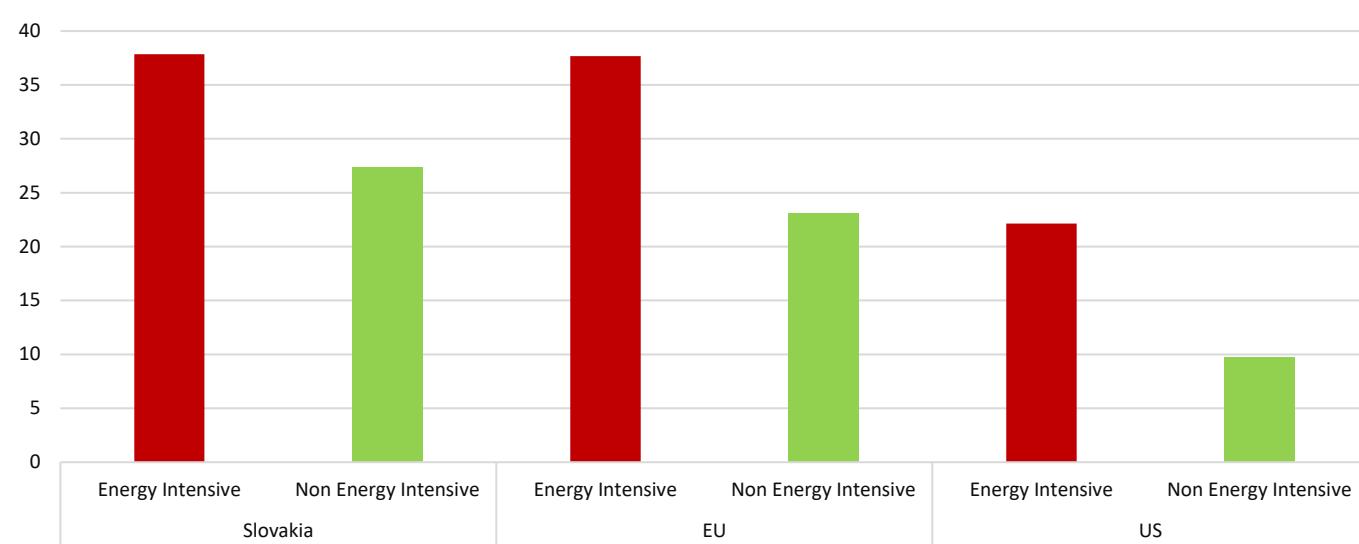
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

SLOVAKIA – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



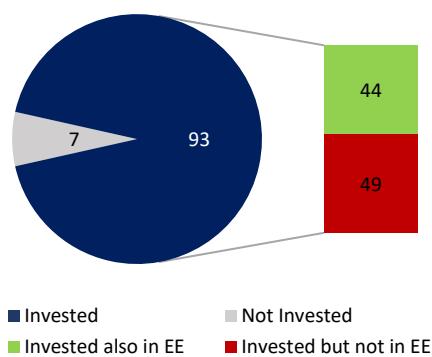
SLOVENIA – ENERGY EFFICIENCY

Summary

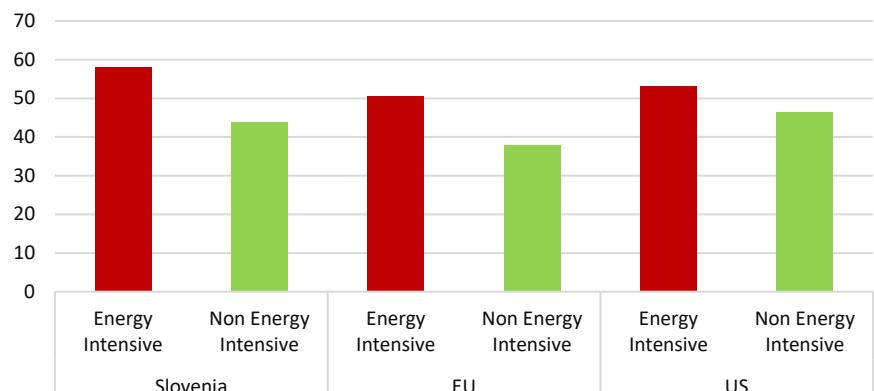
- Half of firms that invest in Slovenia, also invest in EE (44% of all firms). This share rises to 60% for the energy intensive sectors.
- Firms in Slovenia allocate 13% of their total investment in EE improvements, more than the EU and the US average. This proportion is higher in energy intensive sectors such as manufacturing and infrastructure.
- Firms in Slovenia report two fifths of their building stock to be of high or highest energy efficiency (EE) standards, similar to the EU and compared to a third in the US.
- Two thirds of the firms surveyed in Slovenia with an energy audit invest in EE improvements.
- More than a third of the firms surveyed in Slovenia had an energy audit in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Slovenia are more likely to invest in EE improvements when they implement advanced management practices.
- Firms that are more affected by energy costs are more likely to invest in EE improvements.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



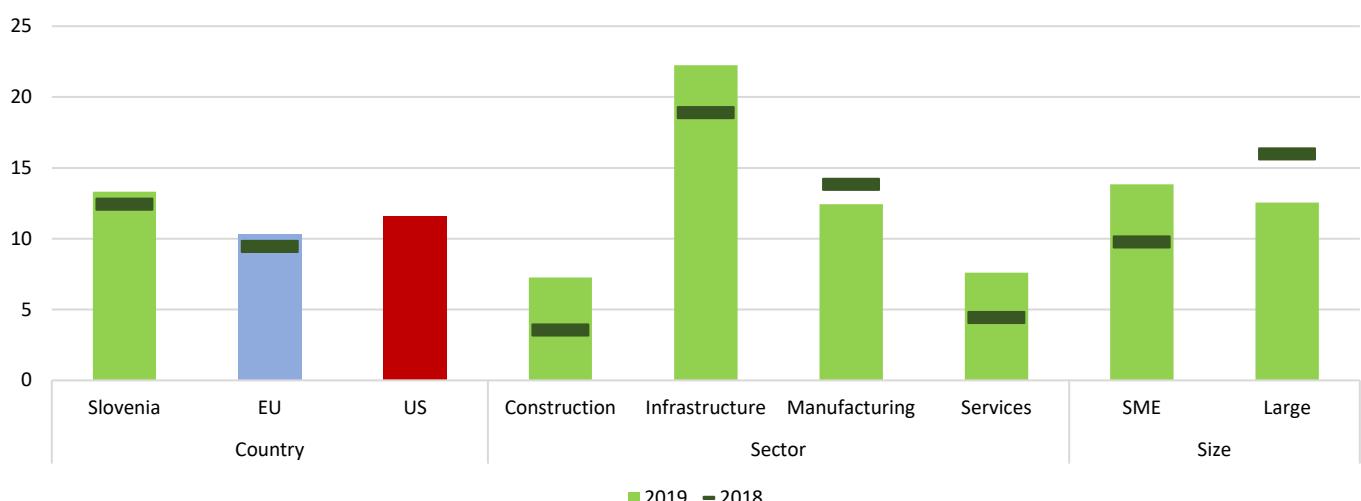
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

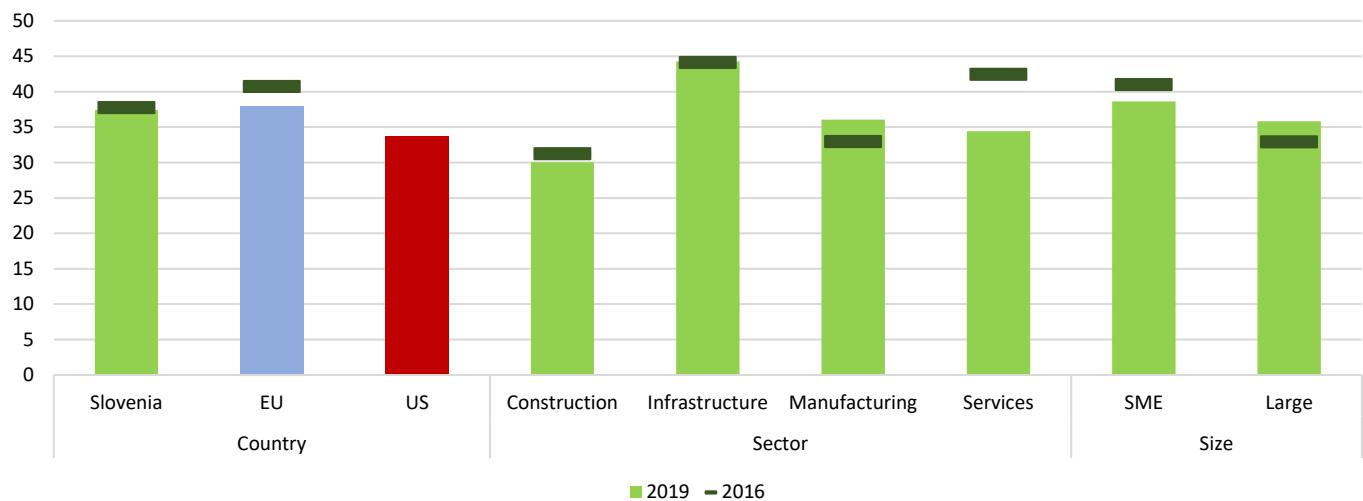


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

SLOVENIA – ENERGY EFFICIENCY

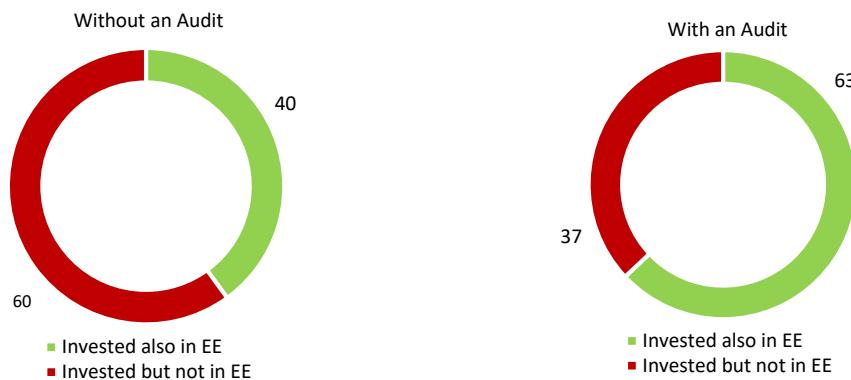
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

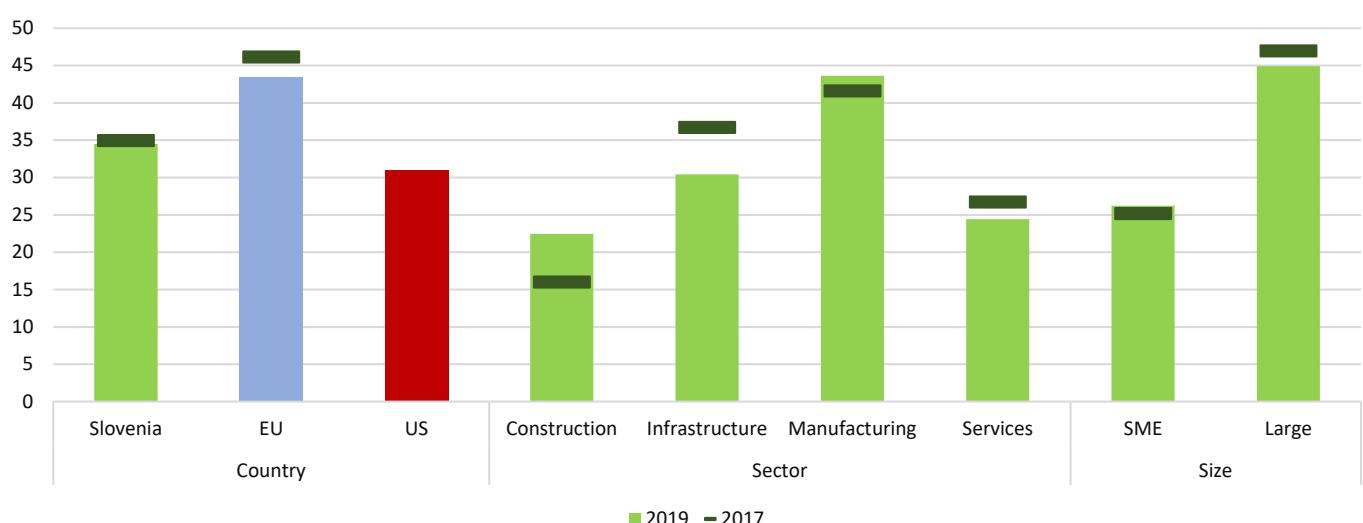
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

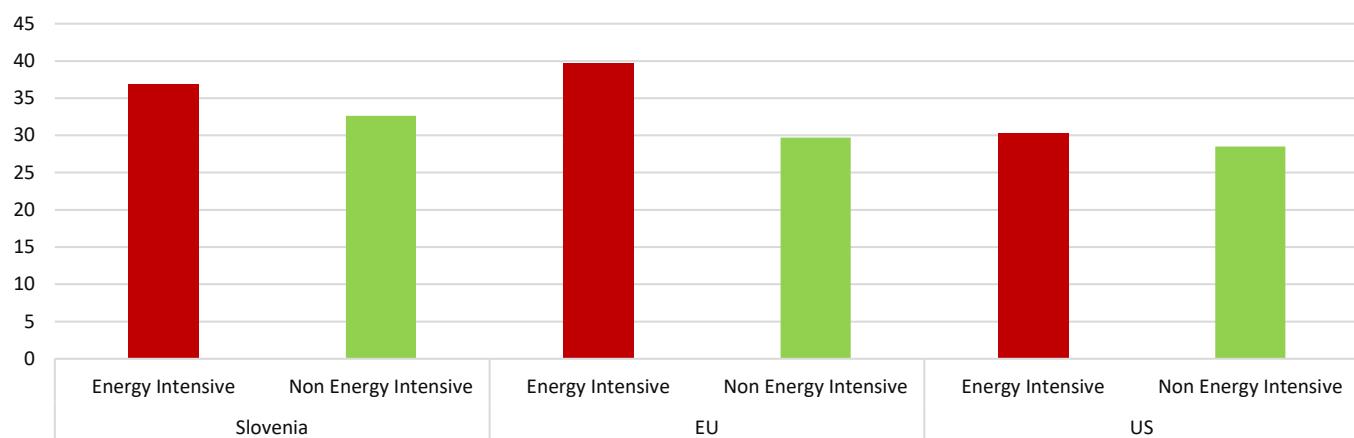
A1. Share of firms with an energy audit in the past three years (%)



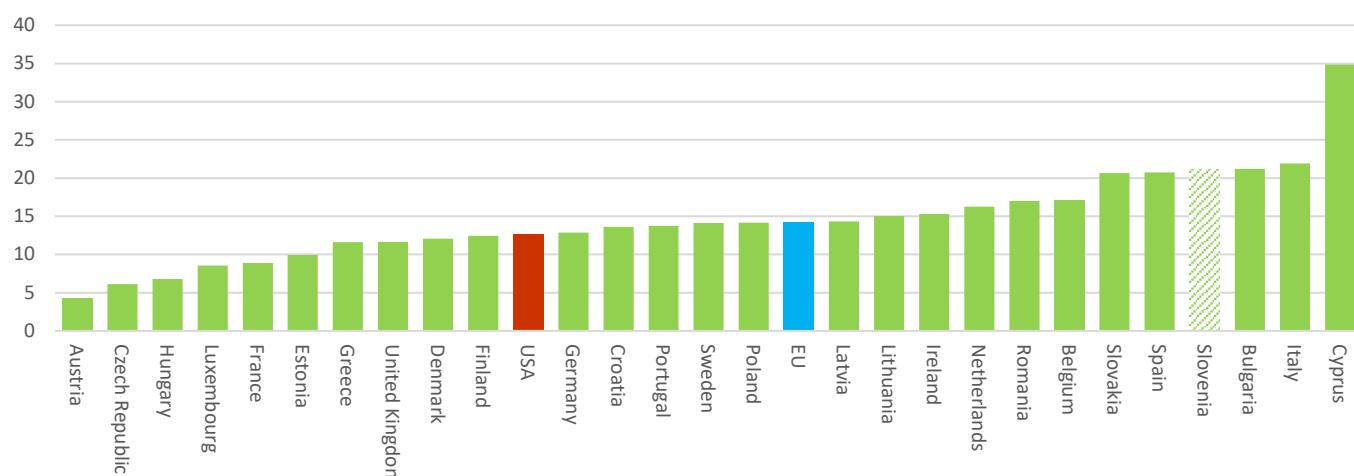
Base: All firms (data not shown for those who said no/don't know/refused)

SLOVENIA – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



C. Long term barriers to investment

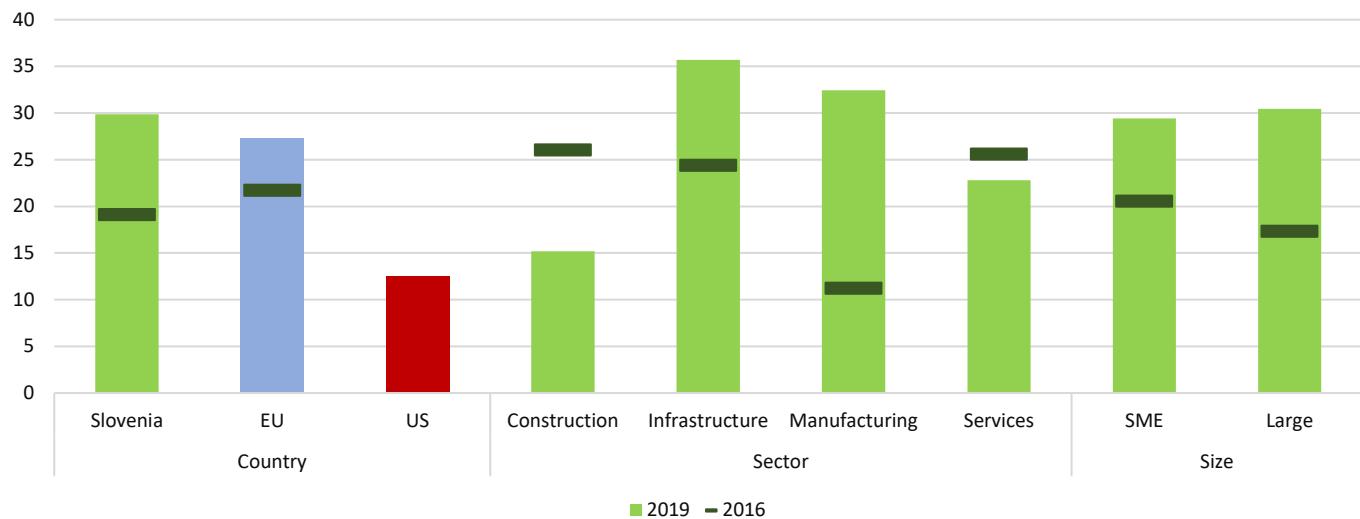
| | Energy costs | Availability of skilled staff | Business regulations | Availability of finance | Uncertainty about the future |
|----------------------|--------------|-------------------------------|----------------------|-------------------------|------------------------------|
| Total | 15 | 33 | 29 | 6 | 17 |
| Large | 11 | 31 | 32 | 6 | 11 |
| SME | 10 | 34 | 24 | 12 | 23 |
| Services | 22 | 26 | 19 | 11 | 24 |
| Manufacturing | 29 | 35 | 26 | 9 | 29 |
| Infrastructure | 24 | 38 | 24 | 14 | 17 |
| Construction | 4 | 30 | 29 | 10 | 19 |
| Energy Intensive | 31 | 48 | 22 | 9 | 22 |
| Non Energy Intensive | 15 | 28 | 24 | 10 | 22 |

● Invested also in EE ● Invested but not in EE

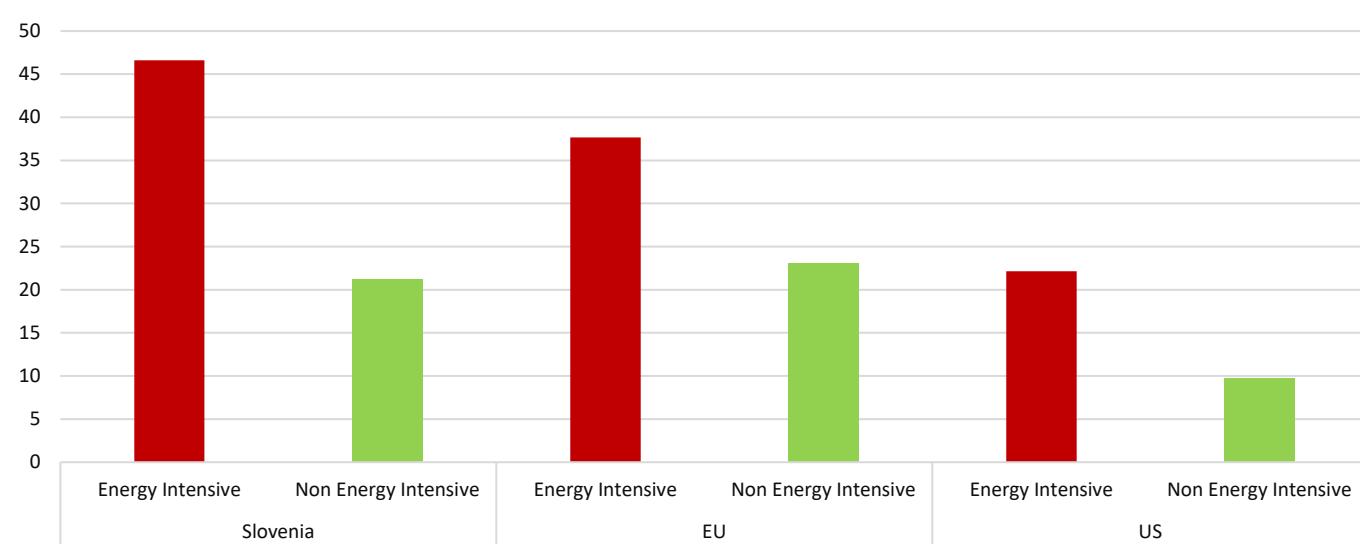
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

SLOVENIA – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



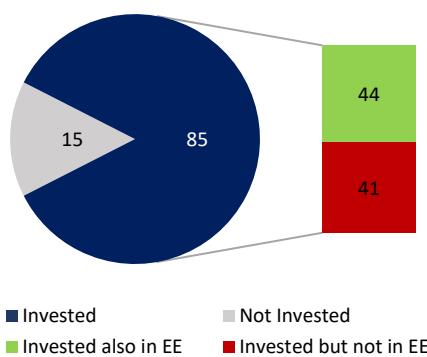
SPAIN – ENERGY EFFICIENCY

Summary

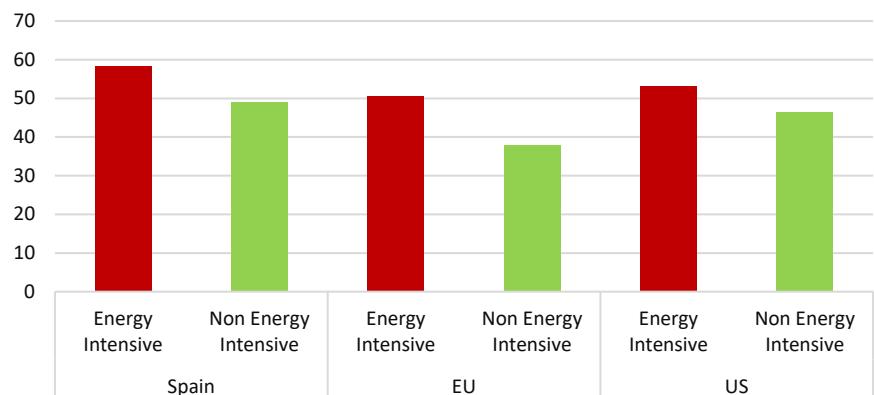
- Half of firms that invest in Spain, also **invest in EE** (44% of all firms). This share rises to 60% for the energy intensive sectors.
- Firms in Spain allocate **12% of their total investment in EE improvements**, more than the EU and the US average. This proportion is higher in energy intensive sectors such as manufacturing and infrastructure.
- Firms in Spain report **half of their building stock to be of high or highest energy efficiency (EE) standards**, a share significantly above that of EU and US counterparts (two fifths and a third, respectively).
- Almost three fourths** of the firms surveyed in Spain with an **energy audit invest in EE improvements**.
- Two fifths** of the firms surveyed in Spain had an **energy audit** in the past three years, similar to the EU and compared to a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Spain are **more likely to invest in EE improvements when they implement advanced management practices**.
- Firms that are **more affected by energy costs** are **more likely to invest in EE improvements**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



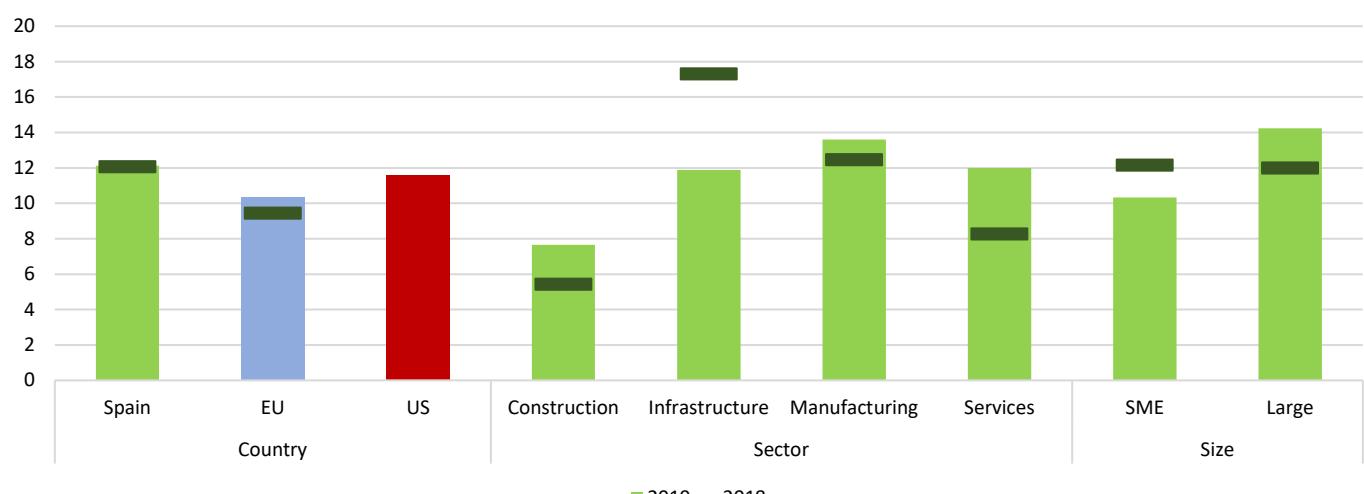
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

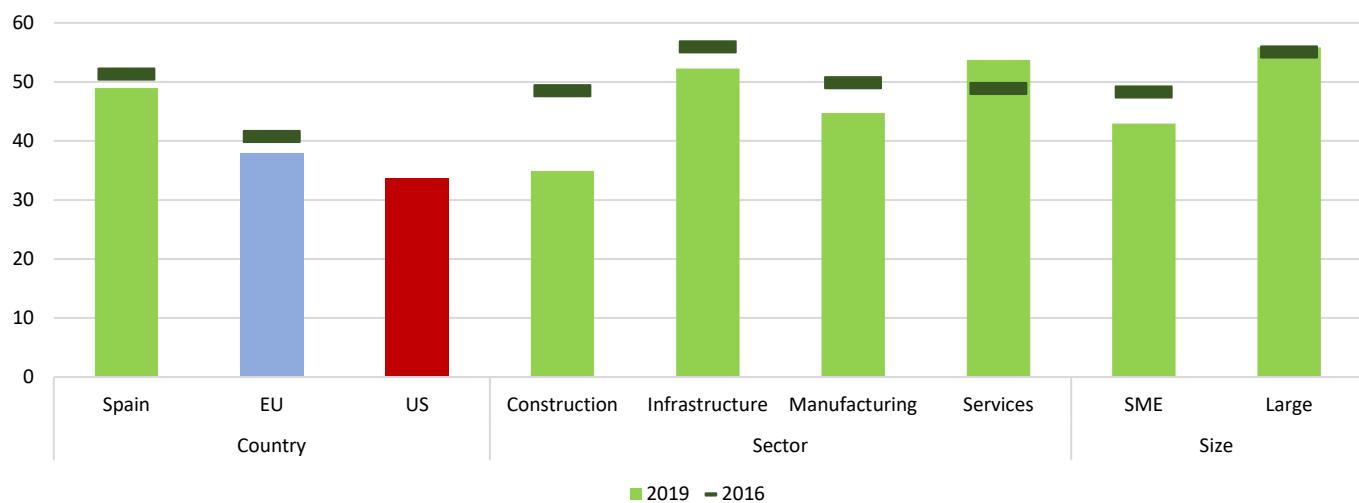


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

SPAIN – ENERGY EFFICIENCY

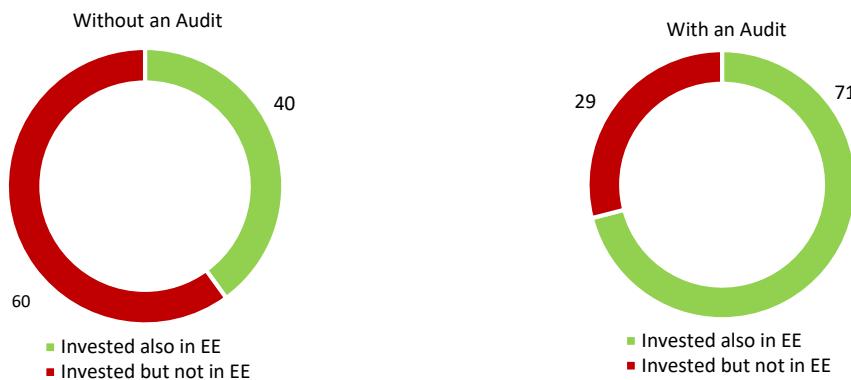
D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

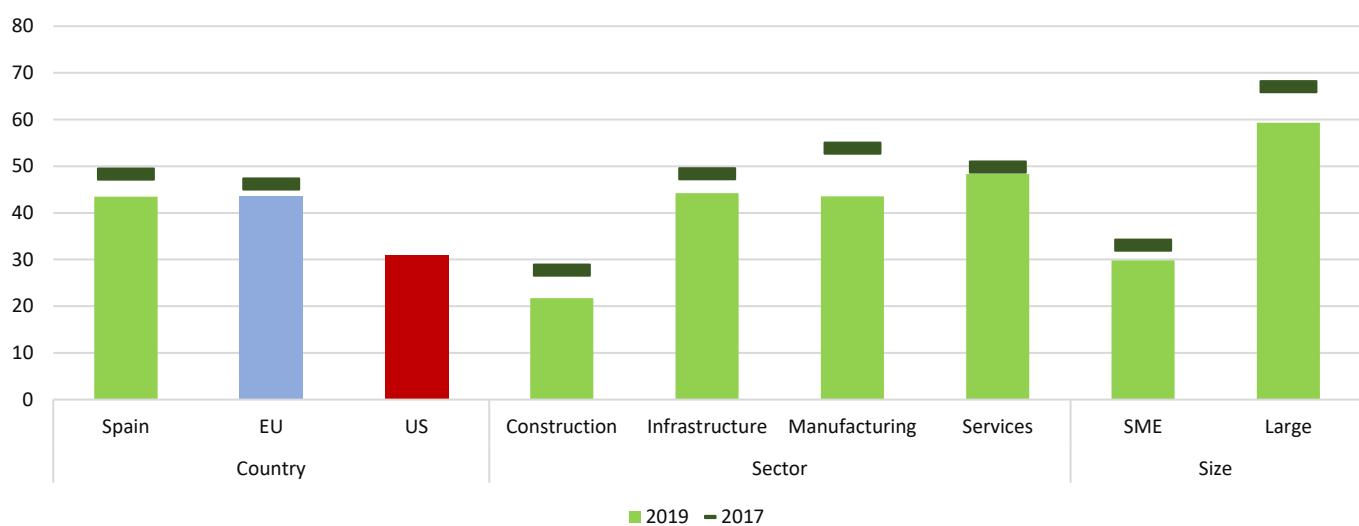
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

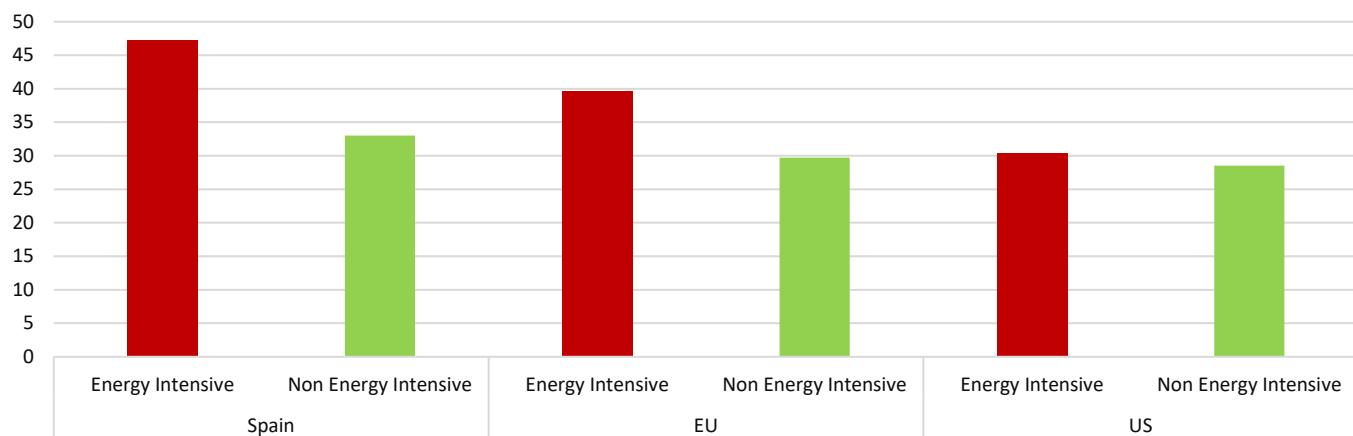
A1. Share of firms with an energy audit in the past three years (%)



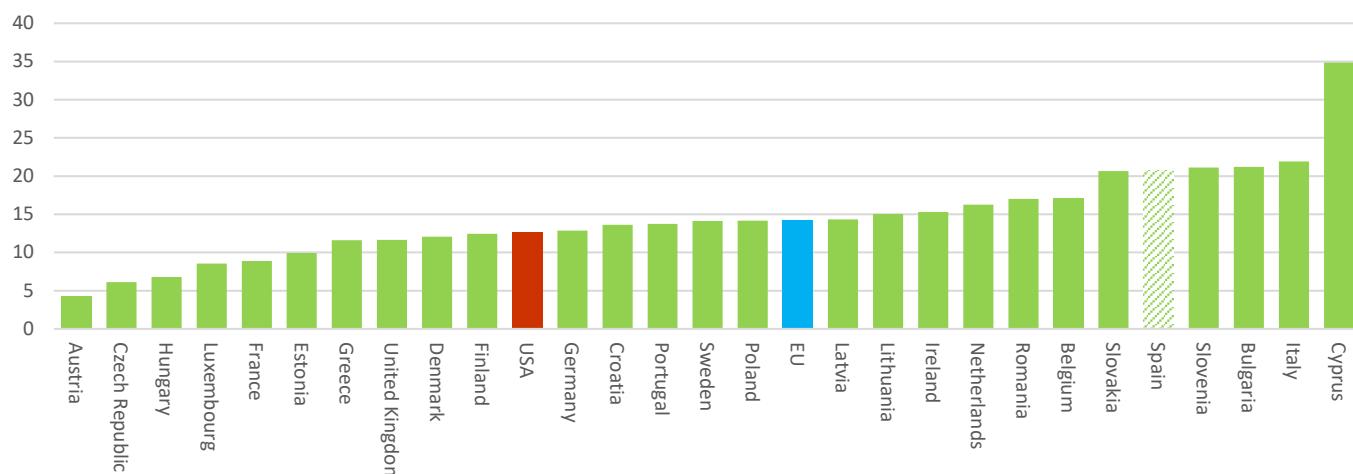
Base: All firms (data not shown for those who said no/don't know/refused)

SPAIN – ENERGY EFFICIENCY

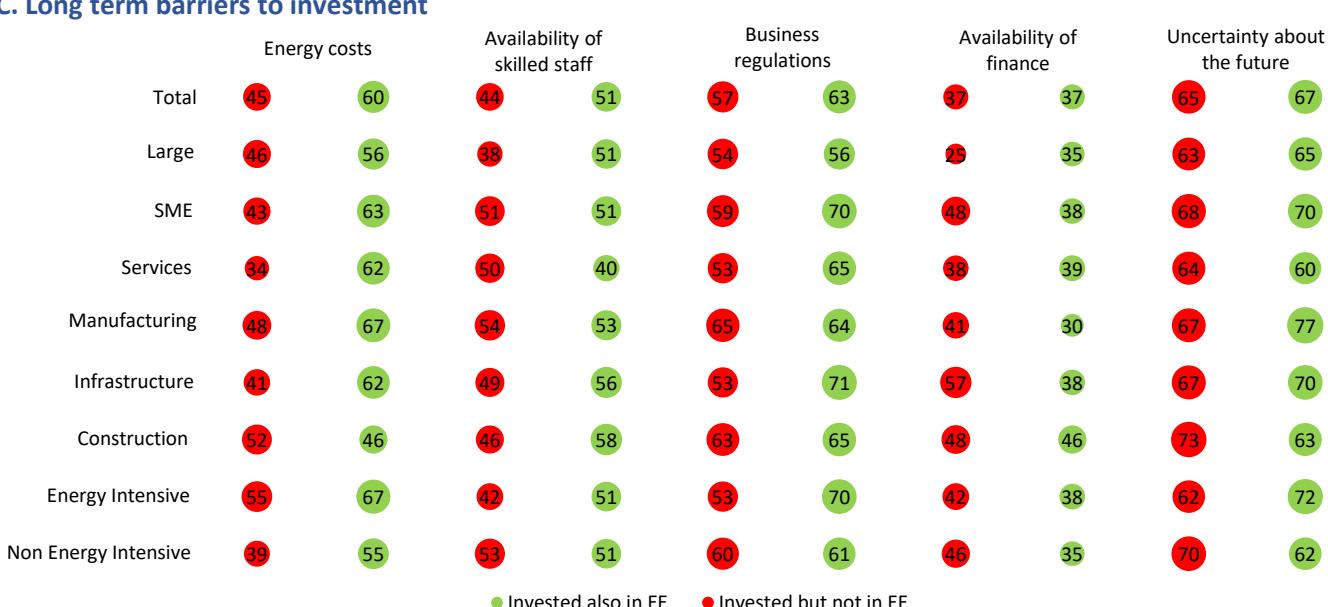
A2. Share of firms with an energy audit in the past three years (%), by energy intensity



B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



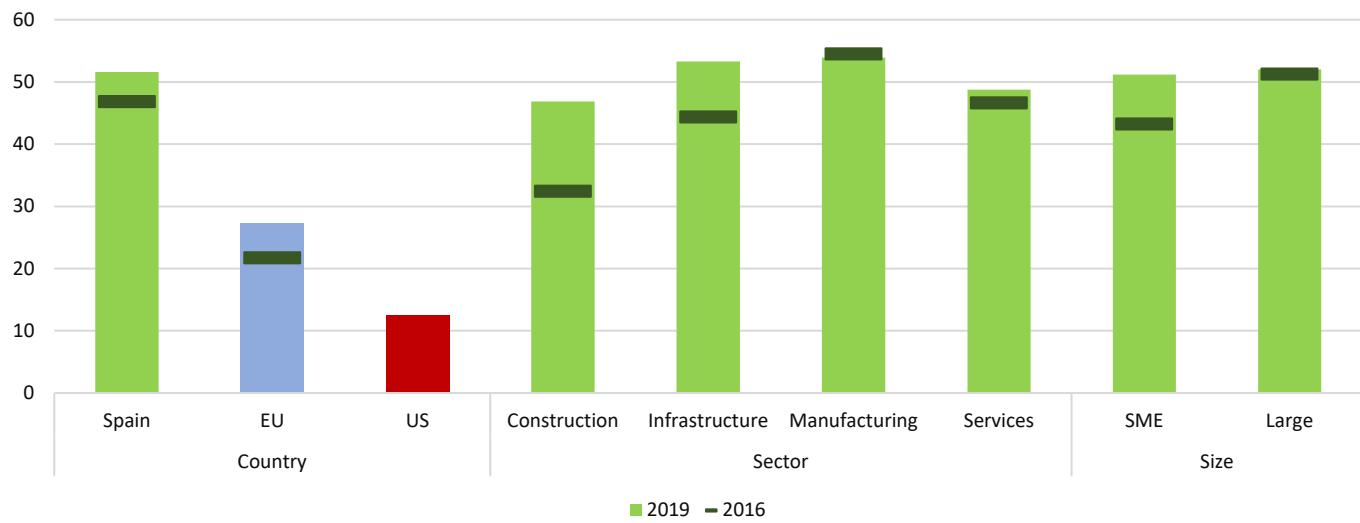
C. Long term barriers to investment



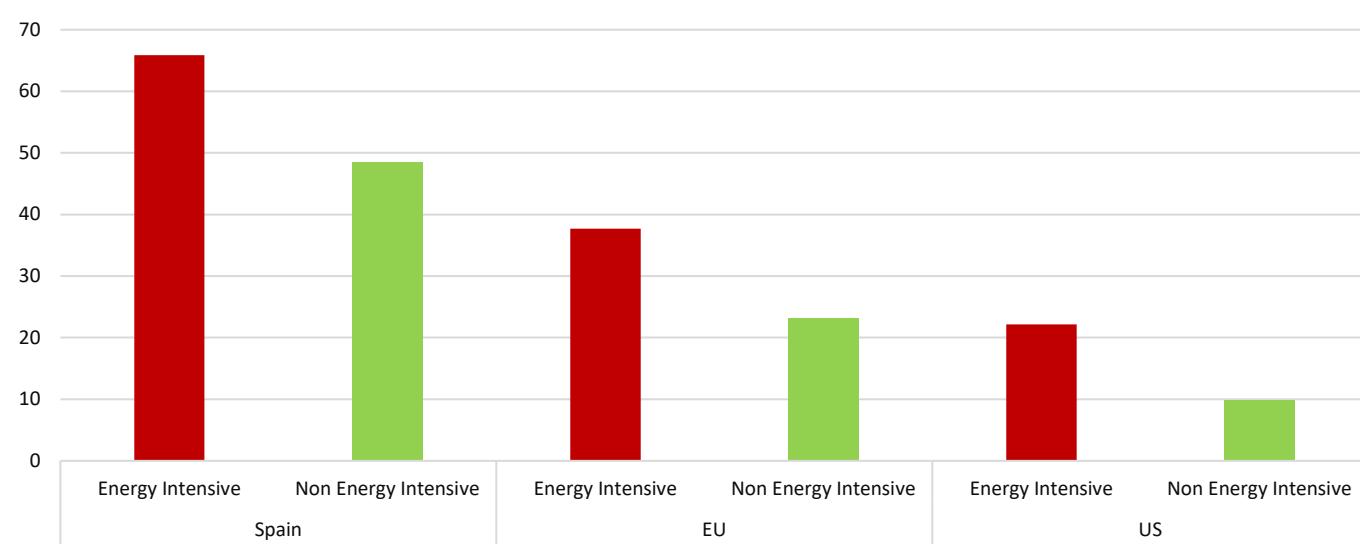
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

SPAIN – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



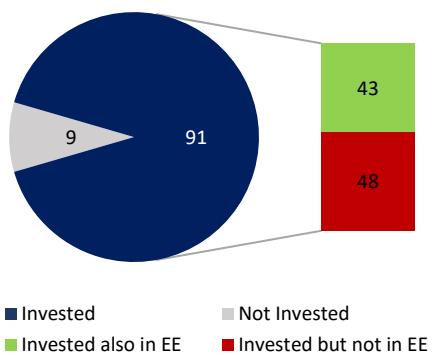
SWEDEN – ENERGY EFFICIENCY

Summary

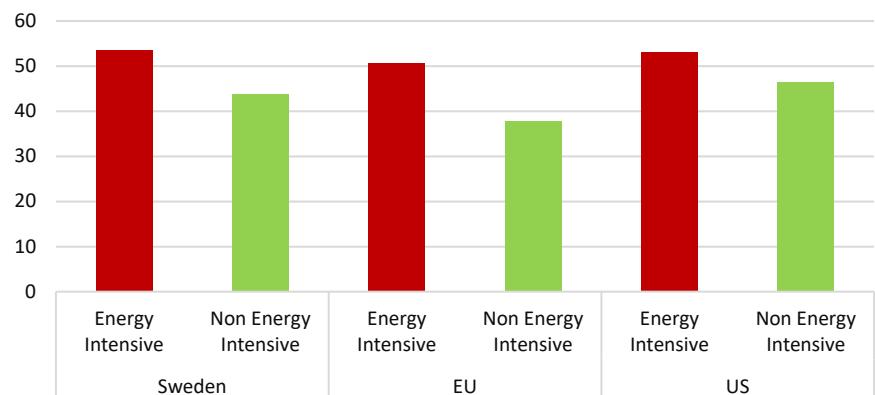
- Almost half of firms that invest in Sweden, also **invest in EE** (43% of all firms).
- Firms in Sweden allocate **14% of their total investment in EE improvements**, more than the EU and the US average. This proportion is higher in energy intensive sectors such as manufacturing and infrastructure.
- Firms in Sweden report *roughly a third* of their **building stock to be of high or highest energy efficiency (EE) standards**, compared to two fifths in the EU and similar to the US.
- More than half* of the firms surveyed in Sweden with an **energy audit invest in EE improvements**.
- Half of the firms surveyed in Sweden had an **energy audit** in the past three years, compared to two fifths in the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in Sweden are *more likely* to **invest in EE improvements when they implement advanced management practices**.
- Firms that are *more affected by energy costs* are *more likely* to **invest in EE improvements**.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



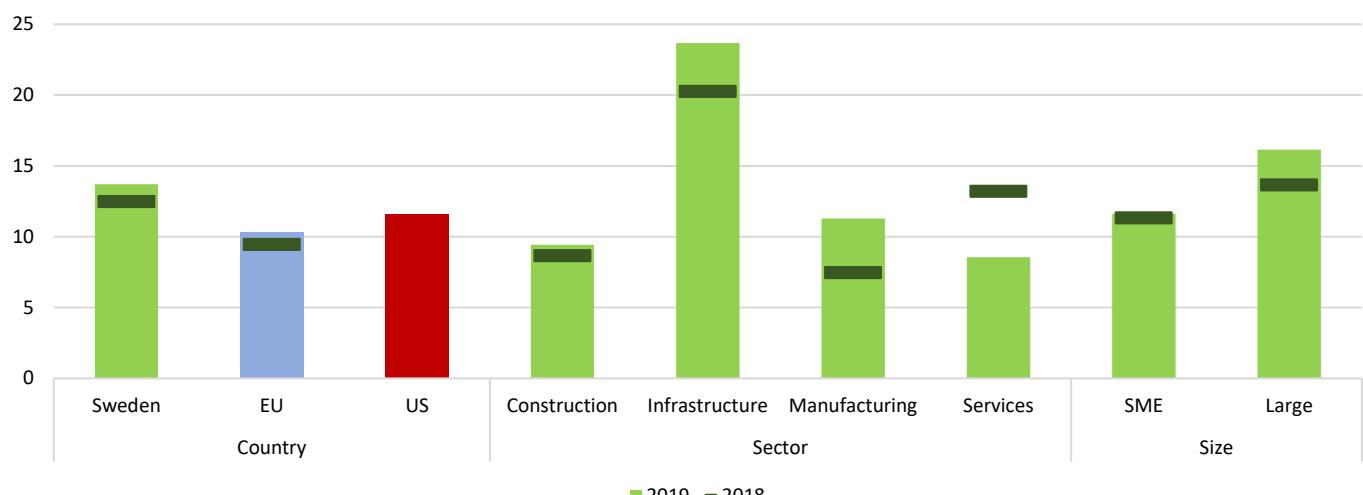
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

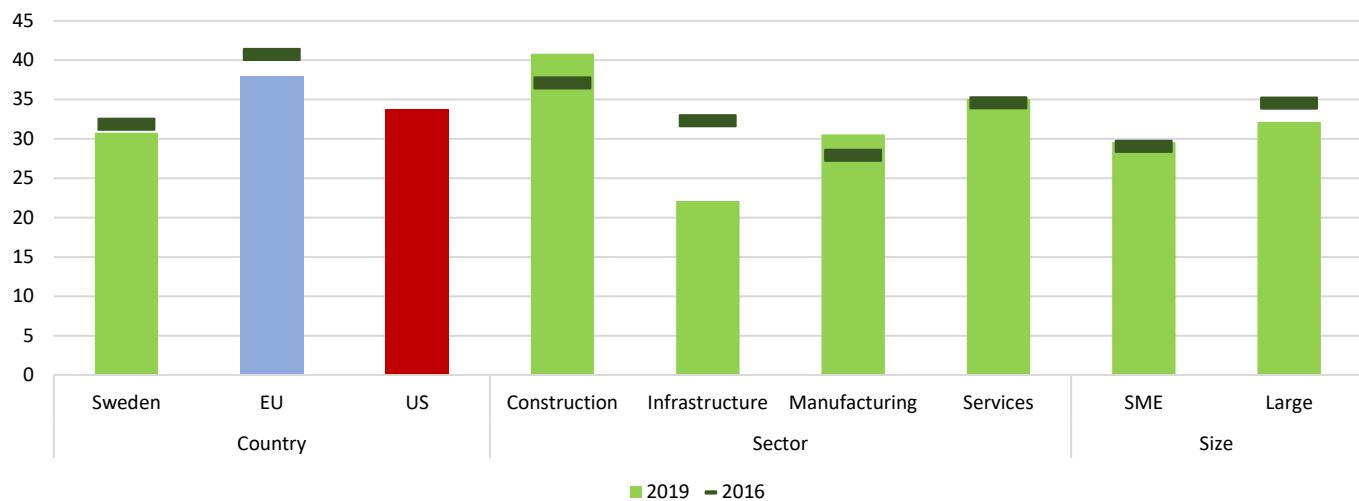


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

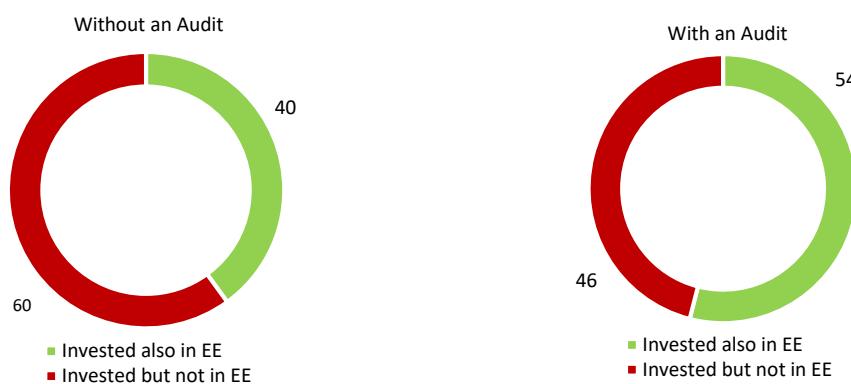
SWEDEN – ENERGY EFFICIENCY

D. Perceived share of building stock of high or highest energy efficiency standards (%)

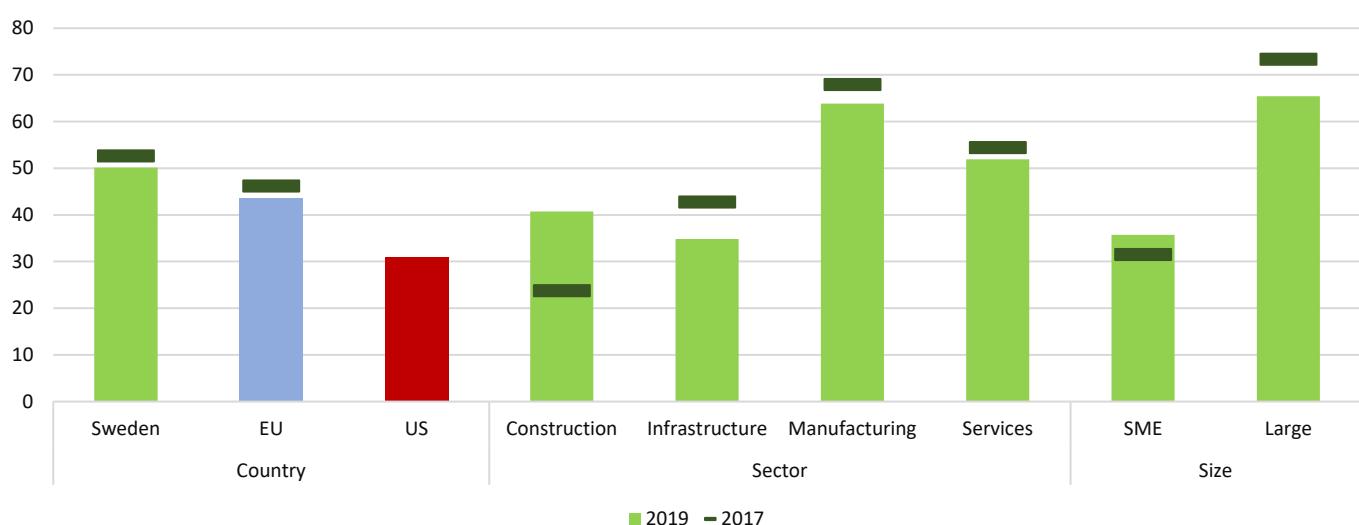


Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions

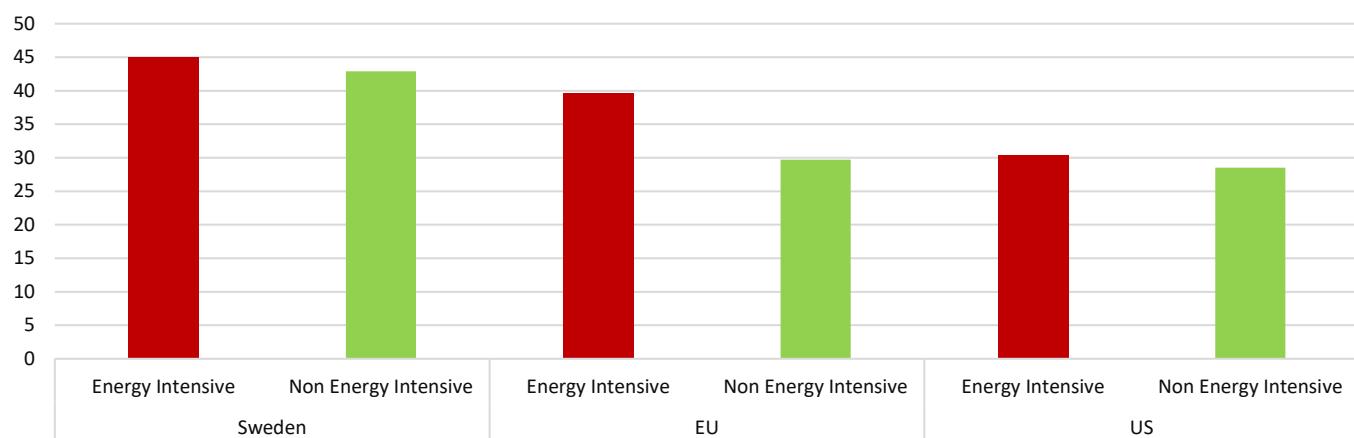


A1. Share of firms with an energy audit in the past three years (%)



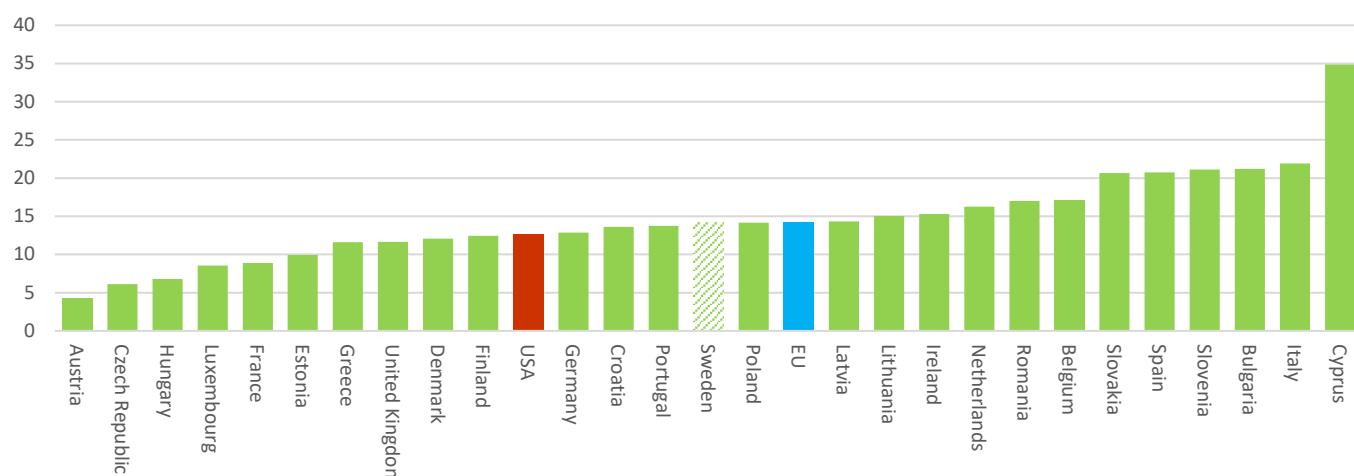
SWEDEN – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

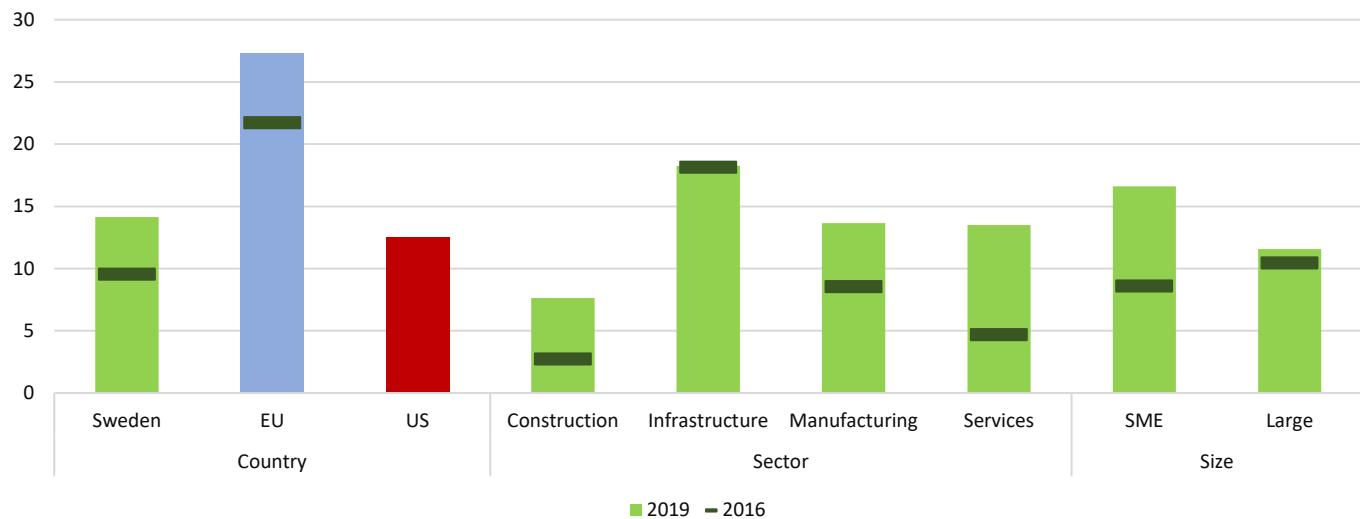
| | Energy costs | | Availability of skilled staff | | Business regulations | | Availability of finance | | Uncertainty about the future | |
|----------------------|--------------|----|-------------------------------|----|----------------------|----|-------------------------|---|------------------------------|----|
| Total | 10 | 16 | 32 | 33 | 8 | 14 | 13 | 7 | 21 | 20 |
| Large | 5 | 11 | 29 | 24 | | 13 | 14 | 7 | 24 | 20 |
| SME | 16 | 20 | 36 | 41 | 16 | 15 | 11 | 7 | 18 | 20 |
| Services | 13 | 17 | 26 | 30 | 11 | 15 | 9 | 9 | 21 | 20 |
| Manufacturing | 20 | 17 | 30 | 35 | 17 | 6 | 23 | 6 | 20 | 11 |
| Infrastructure | 15 | 22 | 37 | 27 | 4 | 16 | 4 | 6 | 20 | 24 |
| Construction | 6 | 14 | 56 | 62 | 28 | 24 | 3 | 7 | 18 | 29 |
| Energy Intensive | 26 | 28 | 26 | 31 | 7 | 17 | 11 | 6 | 9 | 24 |
| Non Energy Intensive | 11 | 15 | 39 | 41 | 15 | 15 | 13 | 8 | 22 | 20 |

● Invested also in EE ● Invested but not in EE

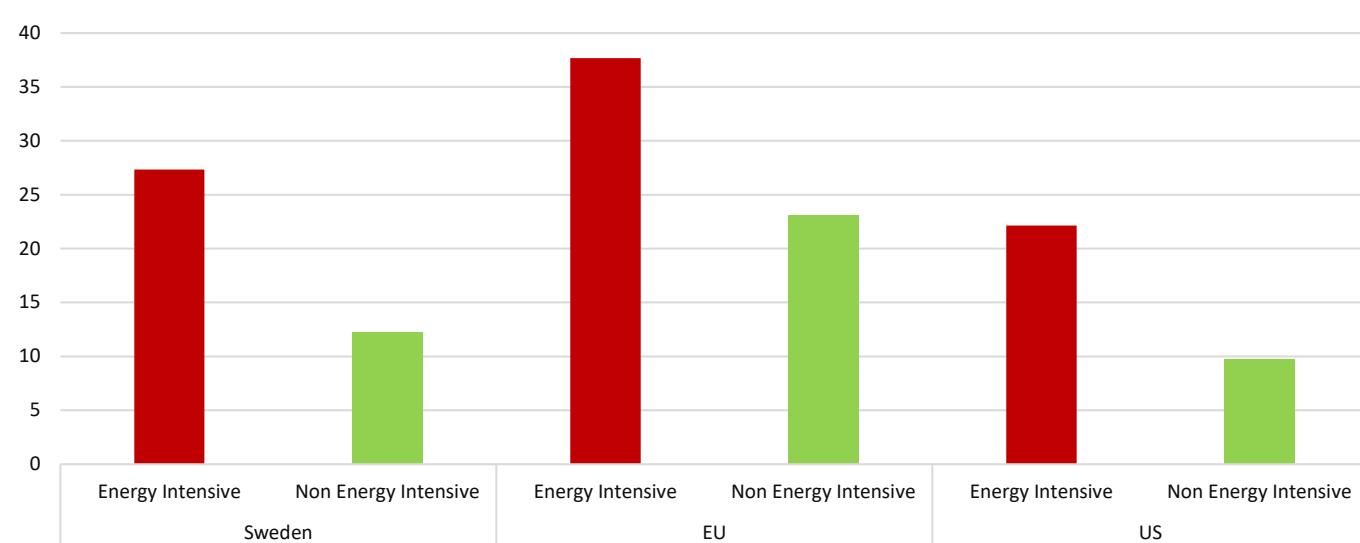
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

SWEDEN – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity



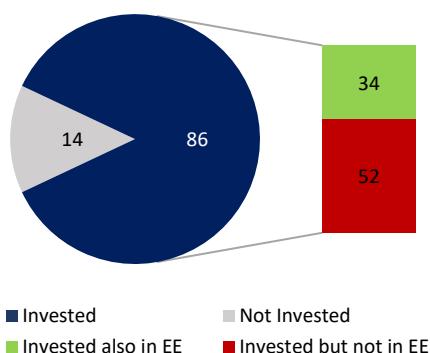
UNITED KINGDOM – ENERGY EFFICIENCY

Summary

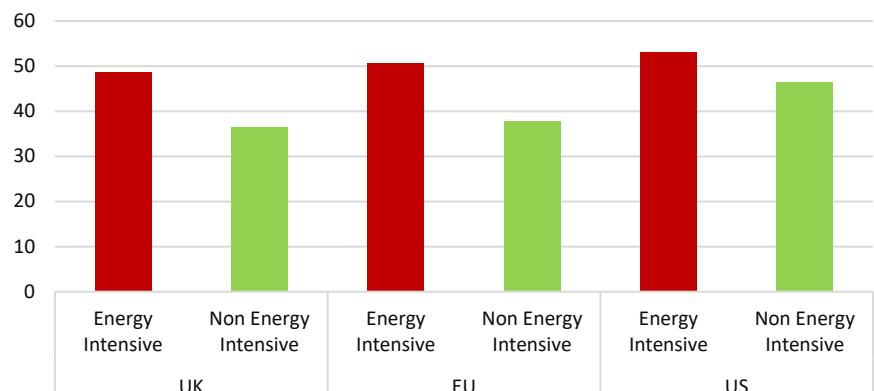
- **Two fifths** of firms in the UK invest in EE improvements (34% of all firms). This share jumps to 50% for the energy intensive sectors.
- Firms in the UK allocate **5%** of their total investment in EE improvements, substantially less than the EU and the US average.
- Firms in the UK report **a fourth** of their building stock to be of high or highest energy efficiency (EE) standards, a share significantly below that of EU and US counterparts (two fifths and a third, respectively).
- **Half** of the firms surveyed in the UK with an energy audit invest in EE improvements.
- **Two fifths** of the firms surveyed in the UK had an energy audit in the past three years, similar to the EU and a third in the US. The implementation rate of energy audits increases with size and is particularly high in energy intensive sectors.
- Firms in the UK are *more likely* to invest in EE improvements when they implement **advanced management practices**.
- Firms that are *more affected by energy costs* are *more likely* to invest in EE improvements.

Energy efficiency (EE) investment

A. Share of firms investing in EE and other areas (%)



B. Share of firms investing in EE (%), by energy intensity



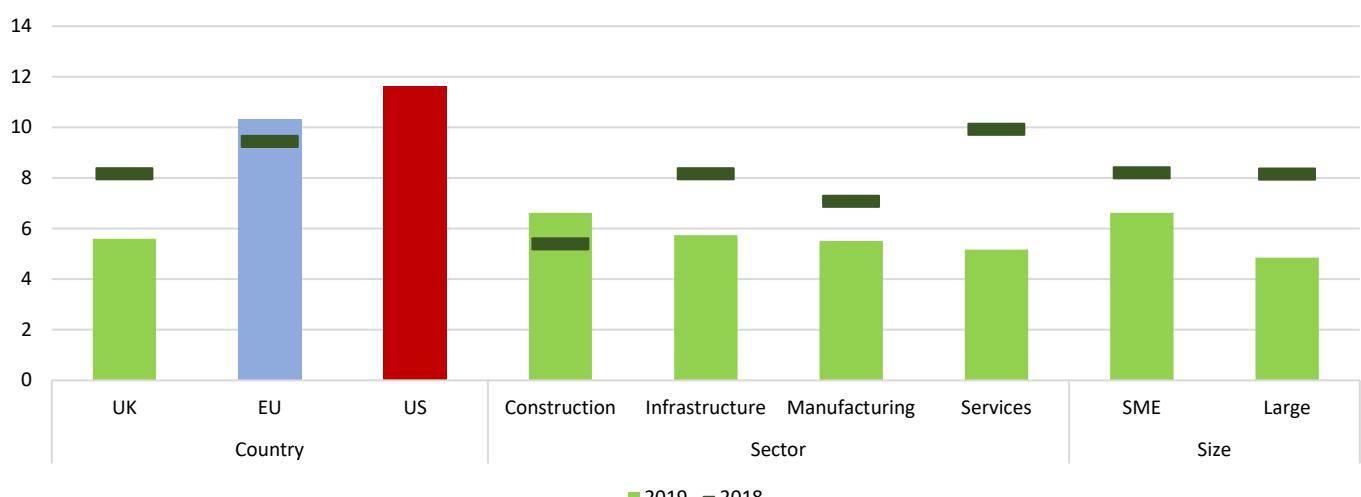
Q: What proportion of the total investment was for EE improvements or/and other areas in your organisation?

Base: all firms

Note: Investment decision is a binary variable that takes the value of one when firms surveyed have invested and 0 otherwise

Note: Sectors are divided in energy intensive and non-energy intensive using clustering analysis. Energy intensive sectors are the following (using 2-digit NACE codes): 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 24, 35, 36, 37, 38, 39, 49, 50, 51

C. Proportion of firms' total investment for measures to improve EE (%)

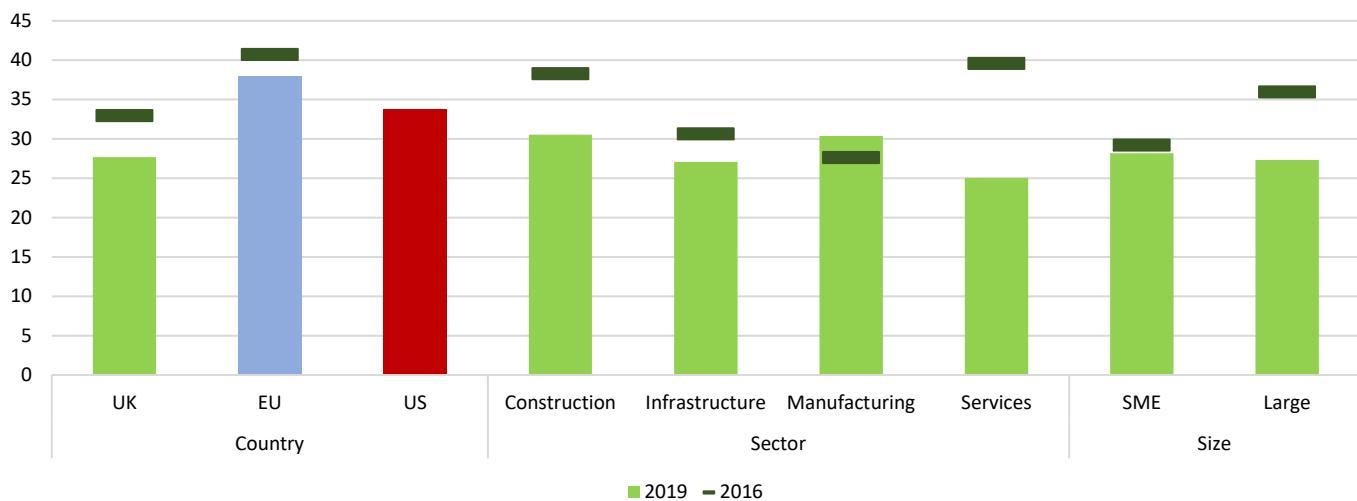


Q: What proportion of the total investment was primarily for measures to improve energy efficiency in your organisation?

Base: All firms which have invested (data not shown for those who said don't know/refused)

UNITED KINGDOM – ENERGY EFFICIENCY

D. Perceived share of building stock of high or highest energy efficiency standards (%)



*Q: What proportion, if any, of your commercial building stock satisfies high or highest energy efficiency standards?
Base: All firms (data not shown for those who said don't know/refused)*

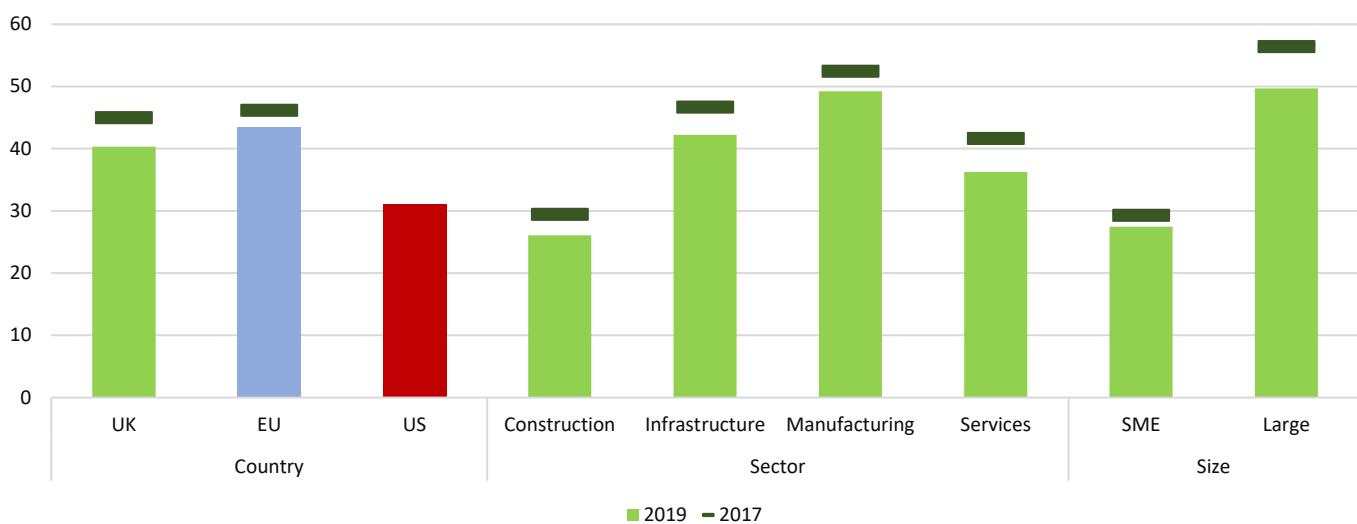
Factors affecting Energy efficiency (EE) investments

A. Energy audits and energy-efficiency investment decisions



*Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms which have invested (data not shown for those who said don't know/refused)*

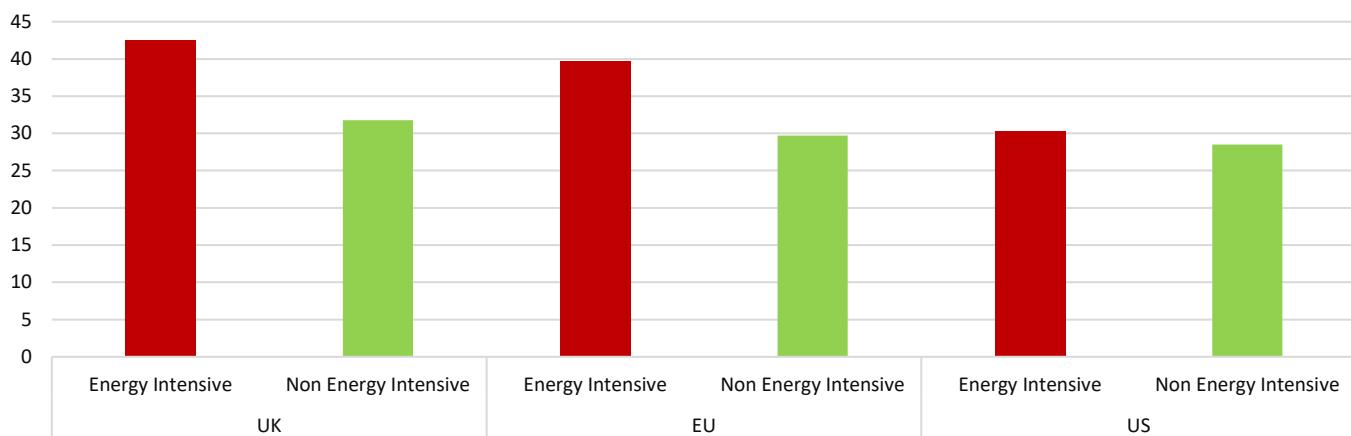
A1. Share of firms with an energy audit in the past three years (%)



Base: All firms (data not shown for those who said no/don't know/refused)

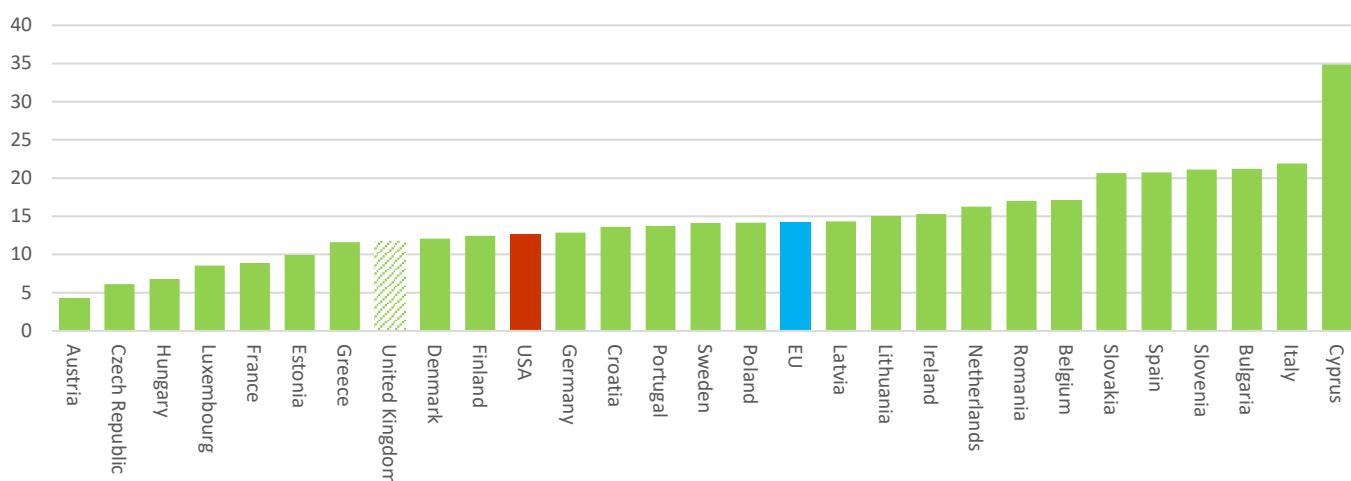
UNITED KINGDOM – ENERGY EFFICIENCY

A2. Share of firms with an energy audit in the past three years (%), by energy intensity



Q: Can I check, in the past three years has your company had an energy audit? By this I mean an assessment of the energy needs and efficiency of your company's building or buildings.
Base: All firms (data not shown for those who said no/don't know/refused)

B. Difference in the probability of investing in EE by firms with advanced managerial practices (%)



Note: Firms with advanced management practices are those that have a pay performance practice and/or a strategic monitoring system

C. Long term barriers to investment

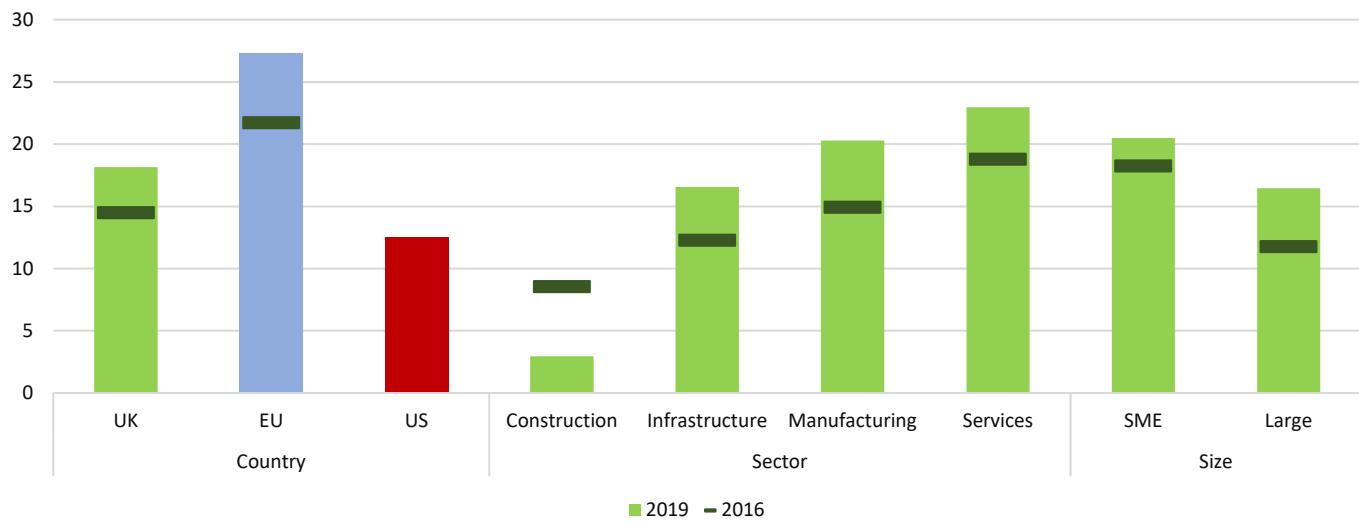
| | Energy costs | | Availability of skilled staff | | Business regulations | | Availability of finance | | Uncertainty about the future | |
|----------------------|--------------|----|-------------------------------|----|----------------------|----|-------------------------|----|------------------------------|----|
| Total | 16 | 20 | 34 | 38 | 15 | 15 | 12 | 8 | 41 | 38 |
| Large | 16 | 15 | 28 | 38 | 9 | 14 | 9 | 8 | 44 | 39 |
| SME | 17 | 25 | 39 | 38 | 20 | 16 | 14 | 8 | 38 | 37 |
| Services | 25 | 30 | 41 | 38 | 29 | 12 | 14 | 7 | 49 | 32 |
| Manufacturing | 15 | 25 | 31 | 34 | 9 | 10 | 12 | 9 | 40 | 40 |
| Infrastructure | 14 | 23 | 39 | 41 | 19 | 29 | 11 | 9 | 30 | 39 |
| Construction | 10 | 4 | 41 | 38 | 17 | 14 | 19 | 8 | 29 | 42 |
| Energy Intensive | 22 | 37 | 24 | 44 | 15 | 15 | 10 | 10 | 39 | 34 |
| Non Energy Intensive | 16 | 20 | 40 | 38 | 19 | 15 | 14 | 5 | 38 | 38 |

● Invested also in EE ● Invested but not in EE

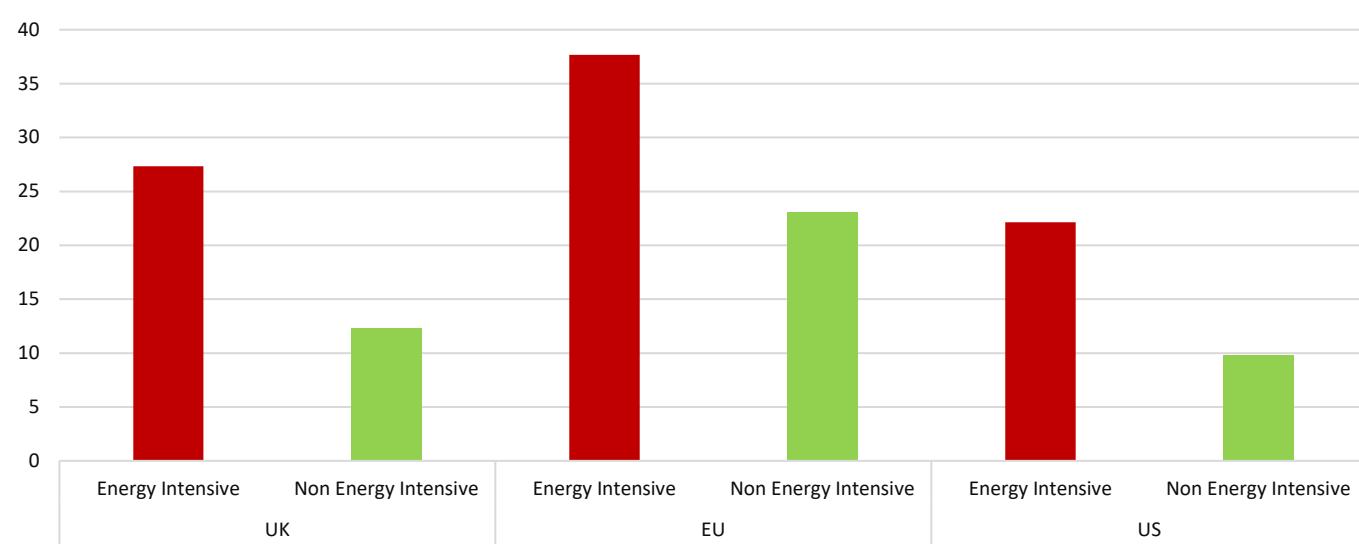
Q: Thinking about your investment activities, to what extent are the above-mentioned an obstacle? Is a major obstacle, a minor obstacle or not an obstacle at all?
Base: All firms (data not shown for those who said a minor obstacle/not an obstacle at all/don't know/refused)

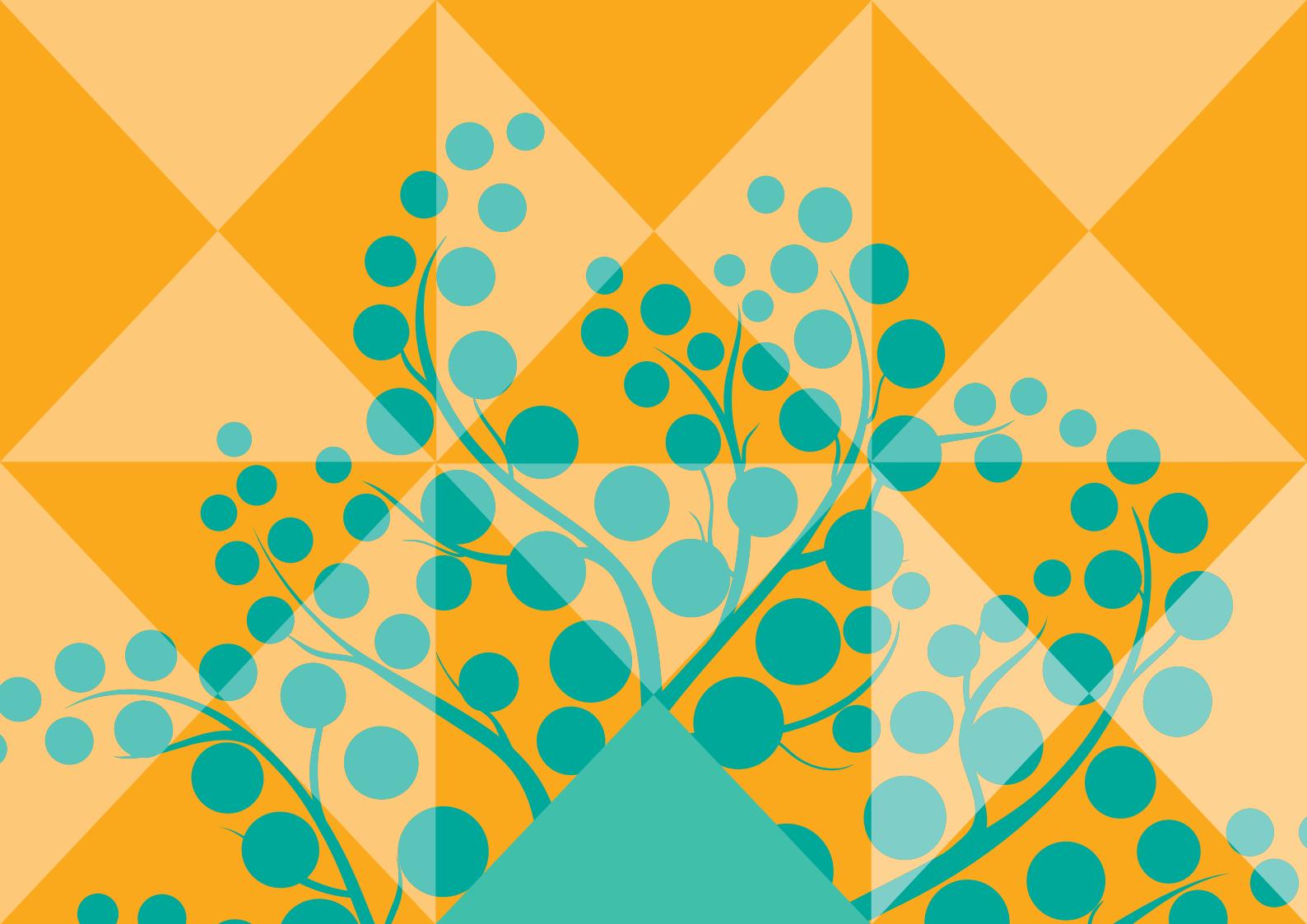
UNITED KINGDOM – ENERGY EFFICIENCY

D. Energy costs as major obstacle to investment (%)



D1. Energy costs as major obstacle to investment (%), by energy intensity





European Investment Bank
98-100, boulevard Konrad Adenauer
L-2950 Luxembourg
+352 4379-1
www.eib.org – info@eib.org

twitter.com/EIB
facebook.com/EuropeanInvestmentBank
youtube.com/EIBtheEUbank

eBook: ISBN 978-92-861-4711-1
pdf: ISBN 978-92-861-4712-8

06/2020 – EN

