



SCOTTISH WHOLESAL ASSOCIATION
The voice of the Scottish Food, Drink and Allied Trades

Decarbonising the Scottish Wholesale Sector

Exploring the sector's carbon emissions
and attitudes to climate action



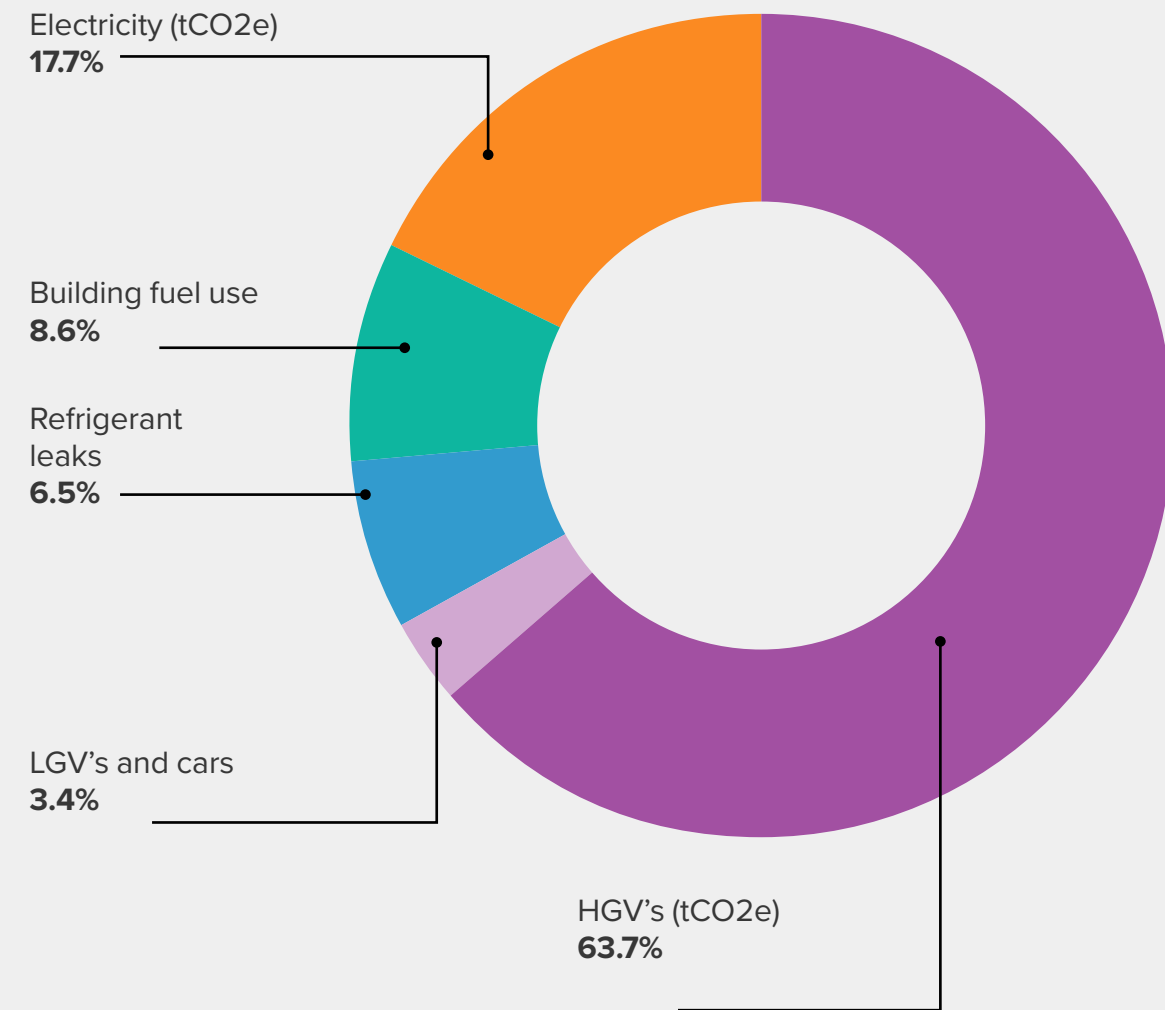
Executive Summary

As the climate crisis worsens and impacts are felt across food supply chains, urgent action from business is needed. The Scottish wholesale sector is stepping up to the challenge, joining the [UK-wide sector ambition of reaching net zero by 2040](#). This report is designed to provide useful insights on Scottish wholesalers' current levels of Green House Gas (GHG) emissions, the barriers they face in reducing them and key motivations for action. It also highlights the need for supportive government policy to facilitate deep decarbonisation of the sector's entire value chain.

Our research identifies key sources of operational emissions for the sector as road transport (particularly HGVs), followed by electricity and use of fuel to heat buildings. Certain decarbonisation actions are already being implemented by Scottish wholesalers, with a survey of SWA members revealing route optimisation, waste reduction and purchasing of renewables to be the most widely reported measures. However, wholesalers also cited significant barriers to further action including cost of upfront capital investment and lack of government support.

Based on the analysis of Scottish wholesalers' survey data, key policy asks include infrastructure and capital cost support for a shift to zero-emissions transport, as well as improved planning and grid connection systems for deployment of renewable electricity. Governments in both Westminster and Holyrood must ensure that appropriate legislation and financial incentives are in place to enable a rapid and deep decarbonisation of the Scottish wholesale sector.

FIGURE E1: SCOTTISH WHOLESALE SECTOR OPERATIONAL EMISSIONS



Foreword and Contents

The Scottish Wholesale Association (SWA) and our members are sector leads in decarbonising our fleet emissions within Scotland’s food and drink supply chain.

In this report we outline the primary sources of operational GHG emissions within our sector. We also highlight by region and business size the key motivations for member action, the barriers to be overcome, and crucially the support needed if we are to make decarbonisation of the wholesale sector a reality by 2040 - our net zero ambition as a sector across the UK - and in time for Scotland’s net zero target by 2045.






The report has been produced alongside the UK-wide Wholesale Sector Net Zero Roadmap, which we developed in collaboration with the Federation of Wholesale Distributors (FWD).

This report is an important step on our sustainability journey. It highlights SWA’s commitment to work hard to drive a just transition to a net zero economy that can benefit all of Scotland’s wholesale sector.

**Colin Smith, Chief Executive,
Scottish Wholesale Association**



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ABOUT THIS REPORT

SWA and its members join FWD in a UK-wide wholesale sector ambition of reaching net zero by 2040. This report has been produced alongside the [UK wholesale sector 2040 roadmap](#), with the aim of providing additional insights which are tailored to the Scottish context.

Drawing on primary data collected in a survey of SWA members, this publication provides an analysis of the Scottish wholesale sector’s operational GHG emissions, as well as exploring decarbonisation barriers, motivations and enablers specific to wholesalers operating Scotland. The barriers and motivations explored in this research also helped to inform the key policy enablers featured throughout the report which must be implemented for wholesalers in Scotland to reach net zero emissions. This report builds on previous [fleet decarbonisation reports](#) published by SWA in 2021.

We would like to extend thanks to all of the SWA members who contributed to this report through the provision of their data, experiences and opinions.

Setting the scene

As the climate crisis deepens, we are increasingly seeing negative impacts across society, including for businesses. Wholesalers are particularly vulnerable to extreme weather shocks which can cause reduced crop yields and increased price volatility for key agricultural commodities. A changing climate can also lead to disruptions in logistics and supply chain networks.

It is therefore critical that Scottish wholesalers play their part in taking action to reduce emissions across the value chain. There are a variety of climate-related actions members can take. From calculating their GHG footprint (see figure 1) to setting

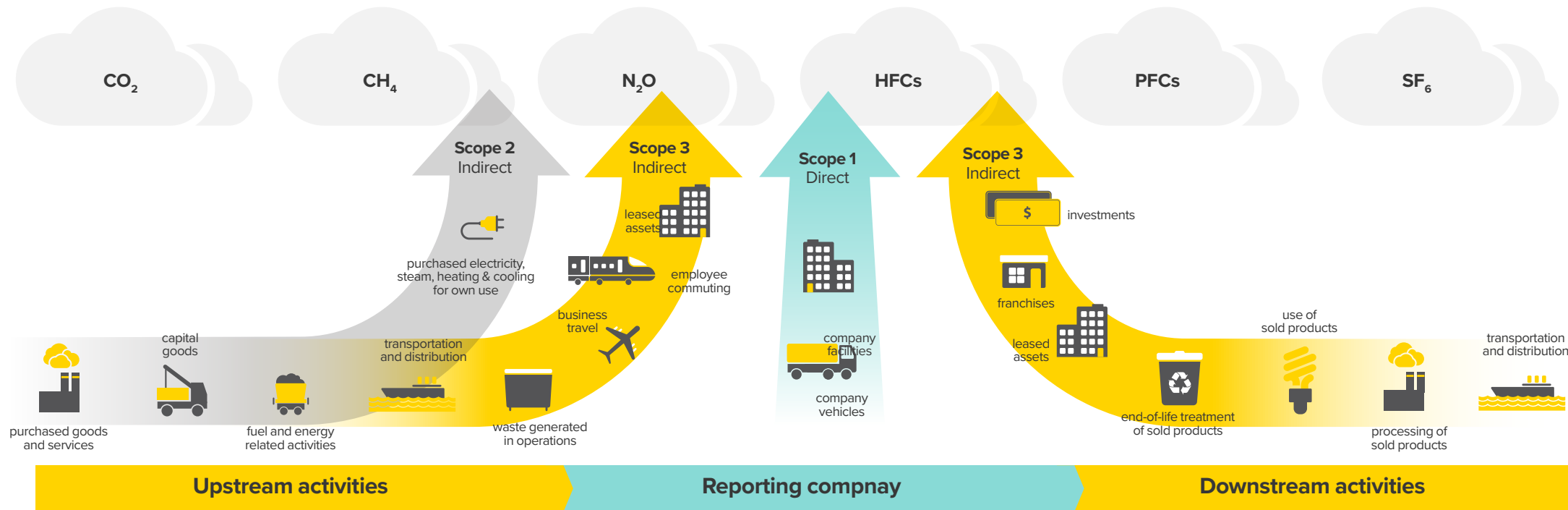
targets (e.g. via the Science-Based Targets initiative or the UK SME Climate Hub) and developing a decarbonisation strategy. The [UK-wide wholesale net-zero roadmap](#) includes a helpful 'getting started guide' for businesses who are kick starting their climate journey.

A supportive policy environment will also be necessary to enable the Scottish wholesale sector to reach net zero. It is therefore important that governments provide clarity and targeted financial support to stimulate investment in the solutions required to rapidly decarbonise.

Scottish policy context

- [Scotland's Climate Change Act 2019](#) sets a target date for net zero emissions by 2045, with interim targets of 75% by 2030 and 90% by 2040, against 1990 baseline levels. Scottish businesses are expected to contribute to carbon emissions reduction by drawing up plans for targeting emissions, and monitoring their progress
- The [Circular Economy \(Scotland\) Bill 2023](#) was introduced to establish the legislative framework to support Scotland's transition to a zero waste and circular economy, increase reuse and recycling rates, and modernise and improve waste and recycling services

FIGURE 1: CORPORATE GHG ACCOUNTING AND REPORTING FRAMEWORK

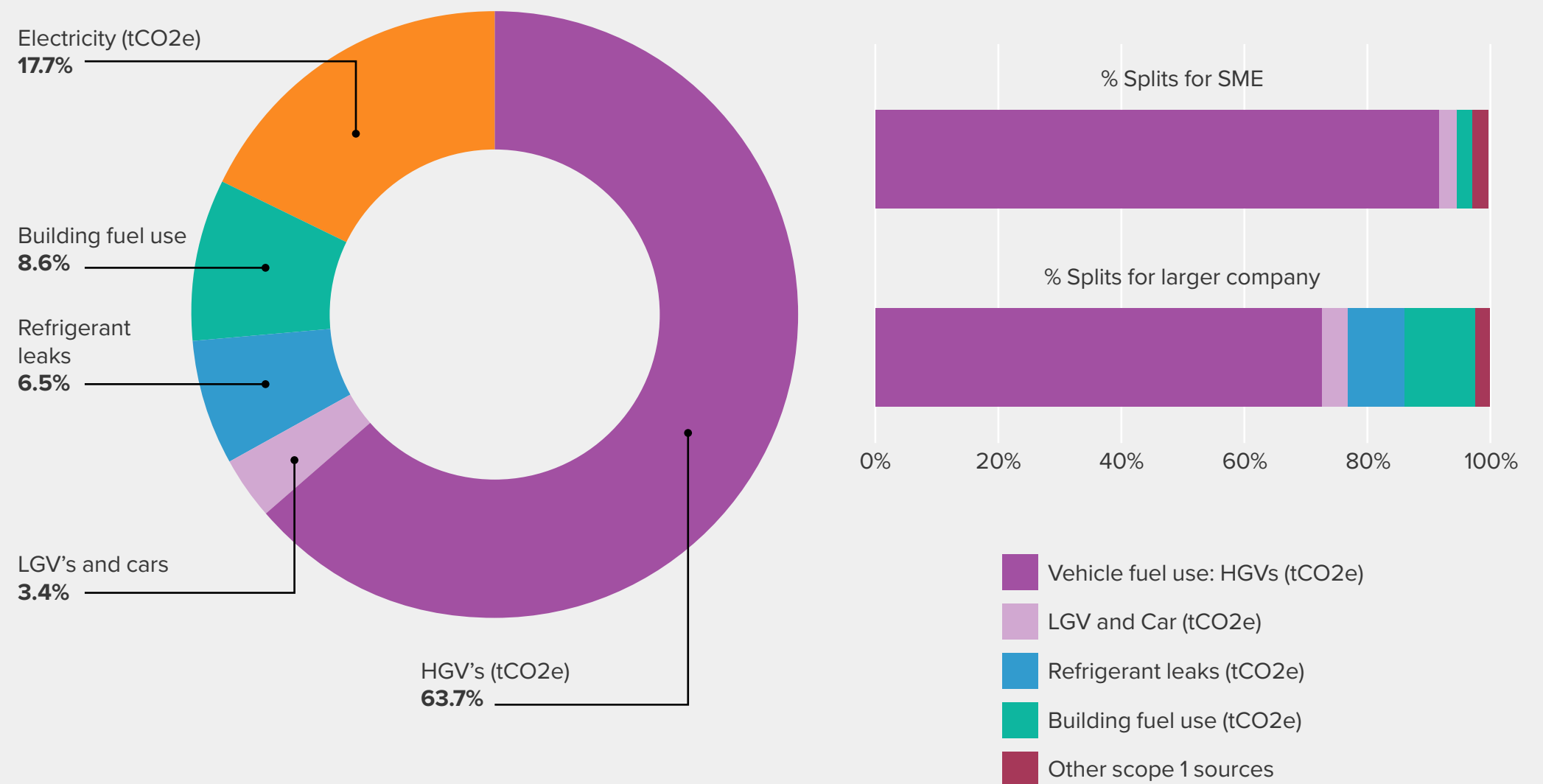


Scottish wholesale sector emissions

In order to build an understanding of key hotspots of the Scottish wholesale sectors' emissions, primary data on GHG emissions was gathered through a survey of SWA members. Analysis of the emissions data provided indicates that there are differences between the Scope 1 emissions profiles for Scottish wholesalers of different sizes. Vehicle emissions account for a higher proportion of emissions for SMEs compared with larger companies. The biggest variations in survey responses are for building fuel use and refrigerants - many SMEs either didn't answer these questions, or noted that it wasn't applicable to them. This suggests that the 'getting started guide' in the UK Wholesale sector roadmap should be used by SMEs to begin gathering the appropriate data.

Comparing the results of the Scottish wholesale emissions analysis with that of the UK-wide wholesale sector (see pg 14 of the [UK net-zero roadmap](#)) shows that overall, the profile of emissions for UK-wide and Scottish wholesalers are similar. The majority of Scope 1 emissions for Scottish wholesalers are from vehicle fleets, which aligns with the wider UK emissions analysis; Scottish vehicles emissions are however a slightly higher proportion of Scope 1 emissions. For other operational emissions categories there are minor differences such as for stationary fuel emissions, which make up a higher proportion of emissions. The Scottish picture reinforces the importance of addressing logistics emissions in order to reach net zero.

FIGURE 2: SCOTTISH WHOLESALE SECTOR EMISSIONS PROFILE & SCOPE 1 SPLIT BY COMPANY SIZE



Decarbonisation actions survey

A survey designed to capture information on decarbonisation barriers and motivations for wholesalers was sent to 40 SWA members, varying across business size and geography. 56% of the Scottish wholesale sector by revenue provided responses to the survey. The rest of this report presents an analysis of the survey's findings.

In the survey, barriers and motivations were grouped by five decarbonisation themes: Zero Emissions Vehicles, Renewable Electricity, Low Carbon Refrigeration, Heat Decarbonisation, and Value Chain Engagement. Potential actions for each theme were listed and respondents were asked to rank the barriers and motivations to these actions in order of relative significance. The appendix provides additional details on the exact actions, barriers and motivations included in the survey questions.

Survey respondents were also asked whether they were already implementing the listed decarbonisation actions, as well as for their level of willingness to take each action. The responses from these implementation and willingness questions are assessed on the transition enablers slides throughout this report, which are also grouped by the five overarching decarbonisation themes.



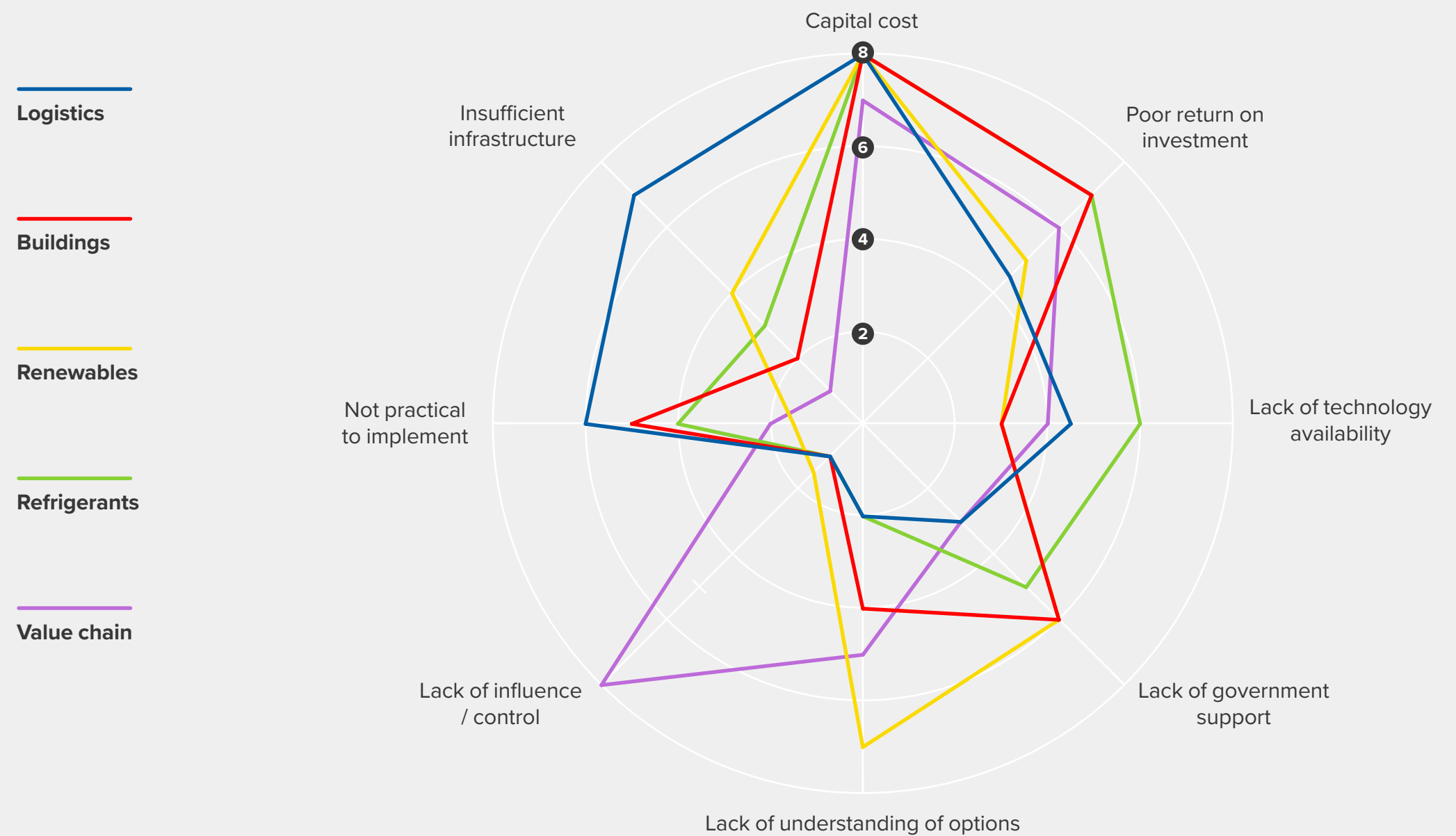
Barriers: Key Takeaways

Figure 3 depicts barriers to current decarbonisation action among survey respondents. There is alignment across all themes that capital cost is the greatest barrier to implementing or expanding action to tackle climate change. This suggests that capital support is important across the wholesale sector, for SMEs and larger businesses alike. Poor return on investment also emerges as a significant barrier across many themes. This represents a clear trend of financial-related barriers carrying the greatest weight for wholesalers.

A lack of government support ranked in the middle of the list for most themes, with SWA members ranking low levels of support from government as a more significant barrier for decarbonising buildings and rolling out renewable electricity than other themes. Important policy-related barriers were also cited as preventing further implementation across other actions, including insufficient infrastructure, which unsurprisingly was ranked as important for logistics.

Some outliers to the general trends include a lack of influence and control preventing action on value chain actions, which is understandable given wholesalers' position in the complex food and drink sector value chain. Another action with variation between themes is insufficient infrastructure, which is noted as a significant barrier for logistics emissions reduction actions. This is likely related to insufficient charging infrastructure which is required for the successful electrification of fleets across Scotland.

FIGURE 3: RELATIVE RANKING OF BARRIERS TO ACTION



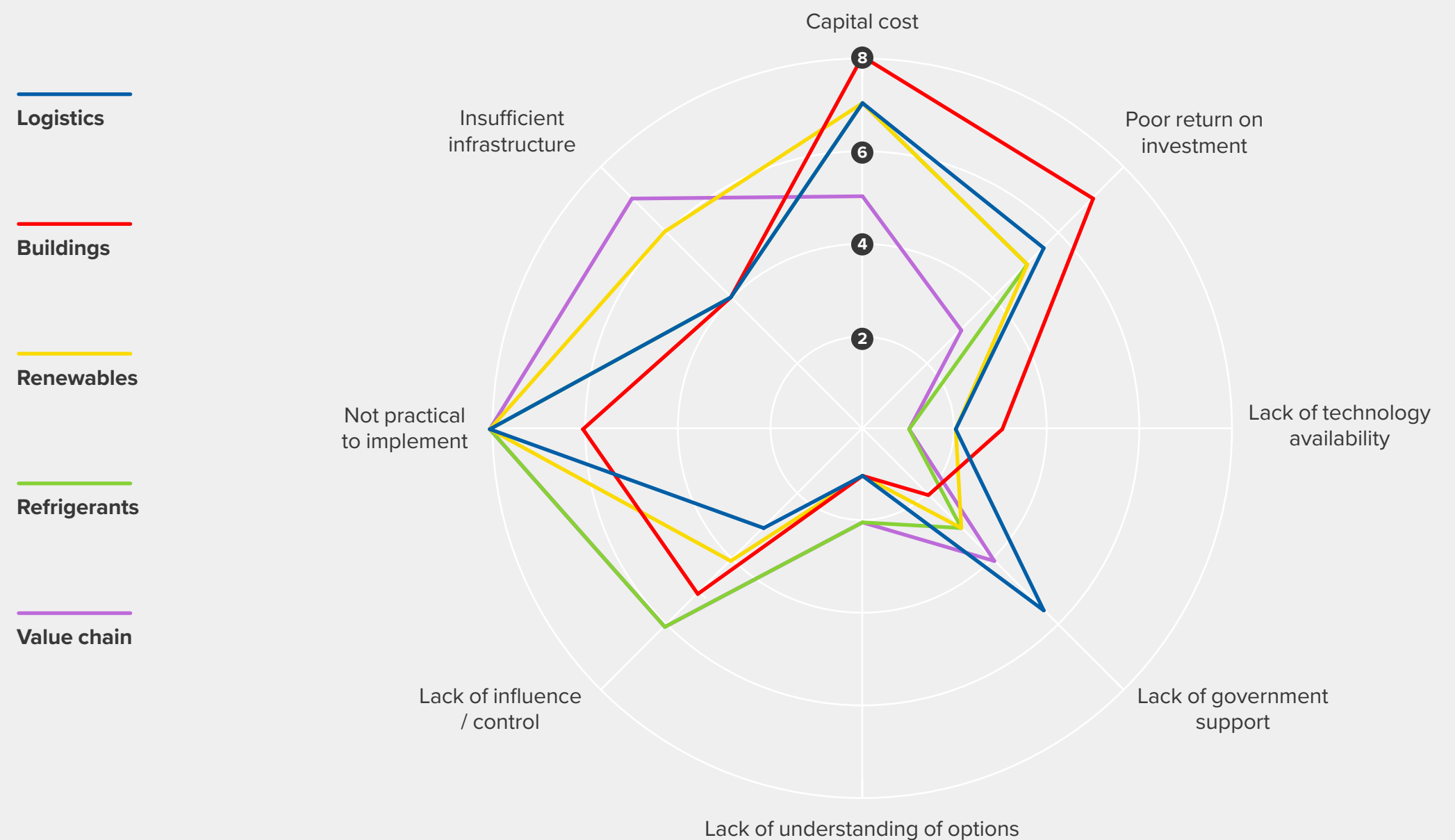
Motivations: Key Takeaways

The survey assessed key motivating factors for current action among Scottish wholesalers. The findings showed that communications benefits were a key impetus across themes. Similarly, other reputational considerations are also driving action (especially for value chain decarbonisation).

The high ranking of cost savings across themes indicates that wholesalers have so far focused efforts on ‘low-hanging fruit’, which are actions requiring less upfront investment. This is further evidenced by findings in other sections of the survey which show that most the widely implemented actions are those which result in cost savings e.g. route optimisation and waste reduction.

The low ranking of ‘financial support from government’ indicates that grants or subsidies have not been a significant factor in action. This may be due to a lack of significant government support to date, and because most implemented actions have been ‘low-hanging fruit’ without the need for major investment. This aligns with the finding in the barriers section of the survey that capital cost is preventing action. In order to deeply decarbonise, climate interventions requiring upfront investment will be crucial. Targeted financial support from government to the wholesale sector must therefore increase. Existing regulation is not a key motivating factor, however, anticipated future regulation is driving wholesalers to act. This underscores the importance of clear and consistent policy to ensure wholesalers can confidently make long-term plans.

FIGURE 4: RELATIVE RANKING OF MOTIVATIONS FOR ACTION



Impact of geography and operational scale

Undertaking analysis disaggregated by geography and scale of operations was a critical element of the survey in order to understand the complexities that exist across different operational variables. This analysis helped to inform actionable policy suggestions tailored to Scottish wholesalers' specific requirements.

GEOGRAPHIC ANALYSIS:

Capital cost remains the greatest barrier to action across all regions, further evidencing the need for accessible finance options for all Scottish wholesalers. For those operating in the Central Belt and Lowlands, perceptions over the durability of investment and practicality of implementation also represent significant barriers. Whereas a lack of government support was identified as a more significant barrier for members based in the Highlands & Islands, suggesting that additional measures may be required to enable equitable allocation of resources across harder-to-reach regions.

Rank	Urban	Rural	Highlands & Islands
1	Capital cost	Capital cost	Capital cost
2	Poor return on investment	Poor return on investment	Lack of government support
3	Not practical to implement	Lack of understanding of options	Not practical to implement

SIZE ANALYSIS:

Although minor differences were reported between businesses of different sizes, the greatest barriers remained consistent, with both SMEs and larger wholesalers rating capital cost as the highest ranked barrier. Across both business size and geography, different combinations of the same barriers ranked as having the greatest effect on inhibiting carbon reduction actions. This provides a unified message from Scottish wholesalers to policymakers regarding areas to prioritise support.

Rank	SME	Larger business
1	Capital cost	Capital cost
2	Lack of government support	Not practical to implement
3	Poor return on investment	Lack of government support



ZERO EMISSIONS VEHICLES

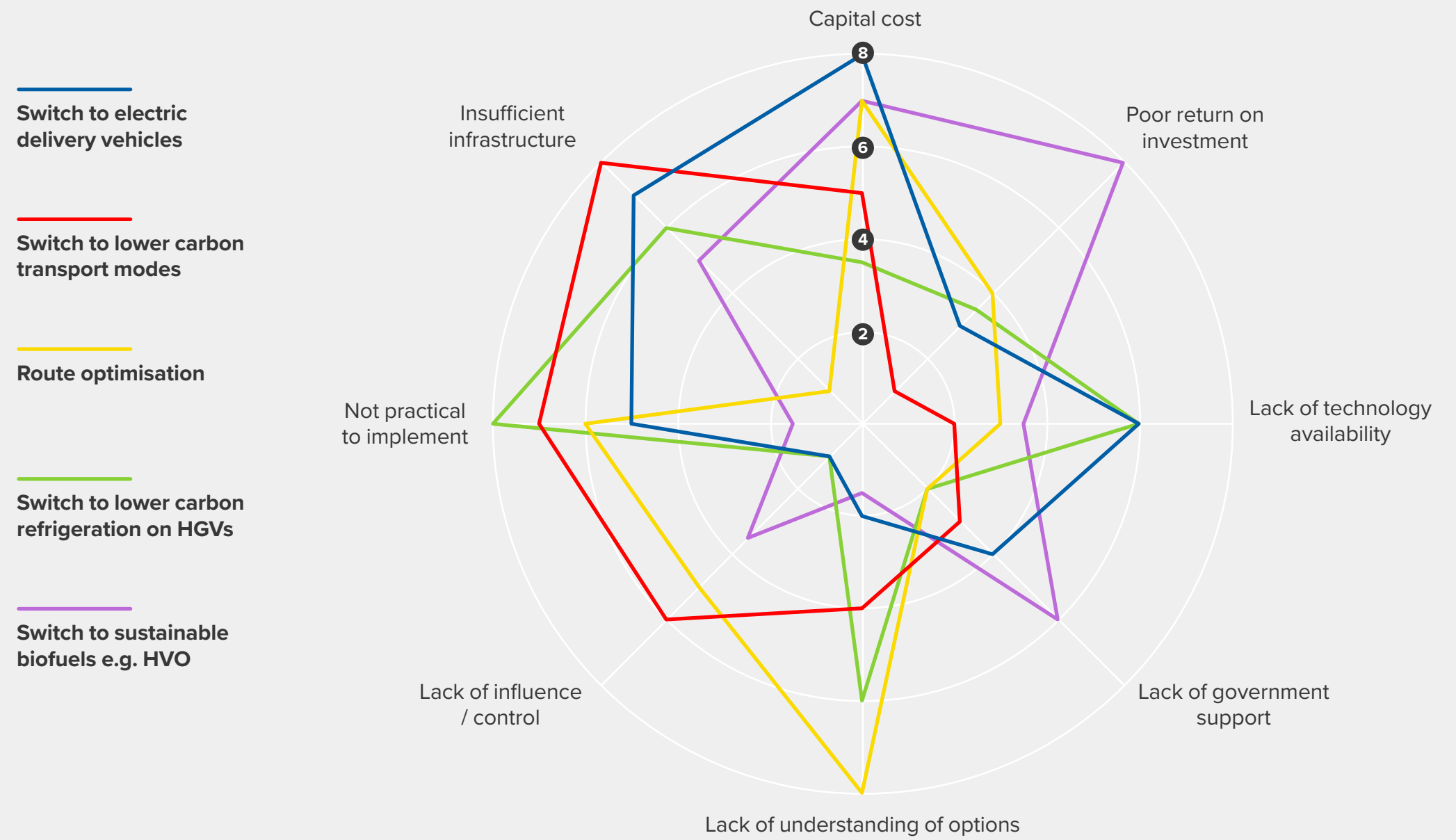
Barriers to action

Logistics account for **67%** of the Scottish wholesale sector's operational emissions, and represent a key area for action in order to reach net zero. These emissions occur during road transportation, primarily from HGVs. Decarbonising heavy goods road transport poses significant infrastructure and technology challenges, which will be explored across the following two pages.

Figure 5 shows that capital cost and insufficient infrastructure are the greatest barriers to carbon reduction actions related to logistics at the thematic level.

However when investigating key barriers to action, there is significant variation in barrier ranking with no unifying trend. Capital cost remained the largest barrier for actions centred around changing vehicle power source either through electric or biofuels. Respondents also referred to reserving investment in fleet improvement for when hydrogen fuel cells become available as the [Scottish Government's Hydrogen Action Plan](#) (2022) is operationalised. However despite being a powerful fuel source, there are limitations to its use case in road transport ([IET, 2022](#); [Plotz, 2022](#)), therefore hydrogen shouldn't be relied on exclusively as a vehicle decarbonisation solution. The survey also highlighted the existence of more structural barriers. For instance, wholesalers typically have a high reliance on rented fleets or third party logistics providers, therefore limiting their degree of control to implement changes.

FIGURE 5: RELATIVE RANKING OF BARRIERS TO ACTION ON ZERO EMISSIONS VEHICLES





ZERO EMISSIONS VEHICLES

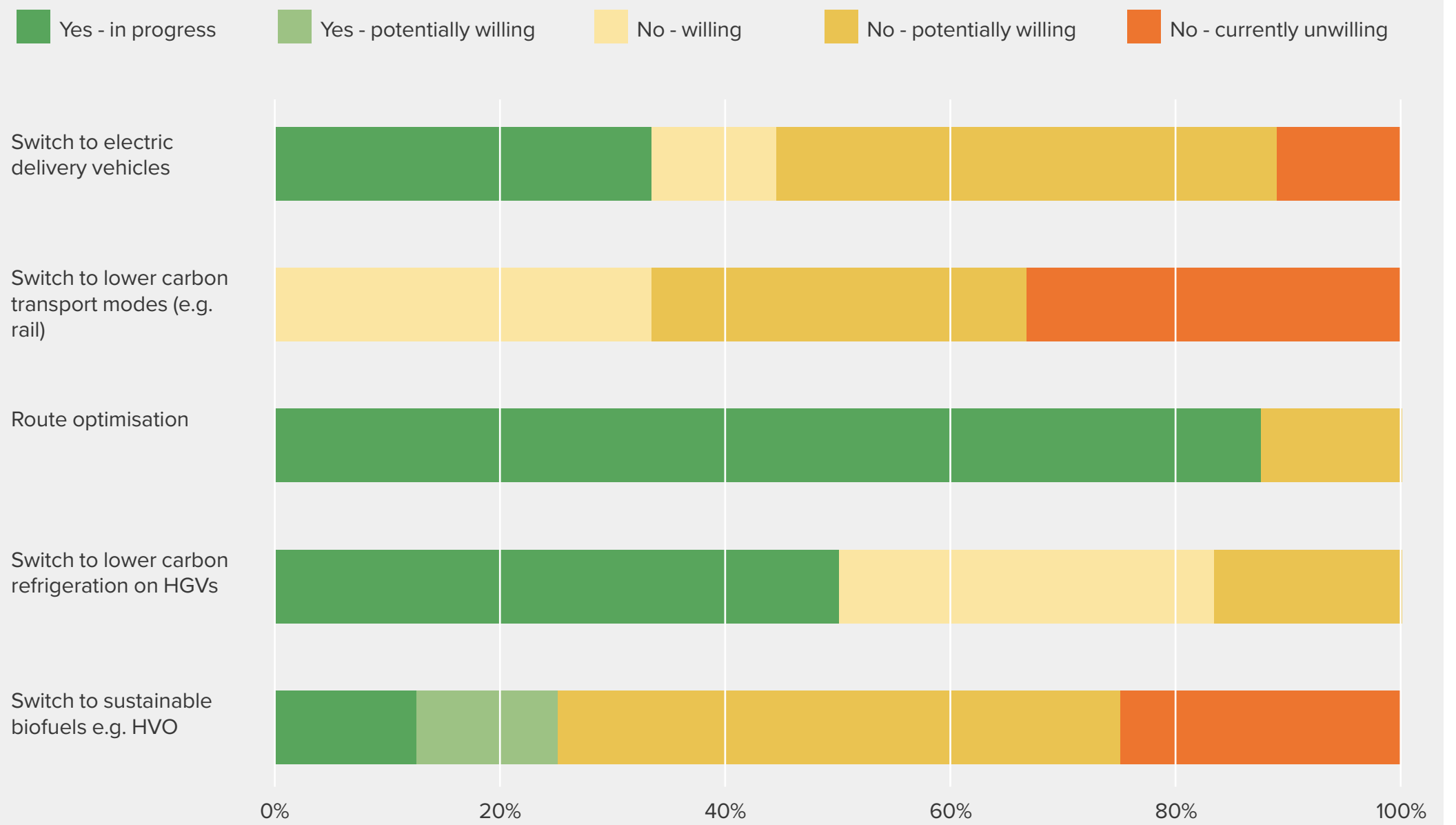
Transition enablers

As with barriers, significant variation exists in the degree of progression made on implementing the key actions listed. Overall, 85% of respondents are already utilising route optimisation, with this action having the highest current implementation rate. This may be due to the combined benefits of achieving cost efficiencies and reducing carbon emissions. However, the reduction potential of route optimisation is limited, therefore further action is required to reach net zero. Operational changes such as switching to lower carbon transport modes, e.g. rail, were among the least popular actions. This is because wholesalers typically make journeys that have multiple destinations combined with varying frequency, rather than a lower number of very significant, 'highway' routes that would better suit rail transport. Other justifications for those currently unwilling to implement the actions listed were the disproportionate cost of biofuel in comparison to the level of carbon savings achievable, and a preference for future hydrogen sources over electric.

SCOTTISH GOVERNMENT POLICY ENABLERS

- Investment support for infrastructure, including subsidies or grants to overcome the significant costs of installation of equipment and purchasing of EVs.
- Public investment in upgrades to the electricity network to support electrification of LGVs and HGVs.

FIGURE 6: DEGREE OF CURRENT IMPLEMENTATION OF ZERO EMISSIONS VEHICLES ACTIONS





RENEWABLE ELECTRICITY

Barriers to action

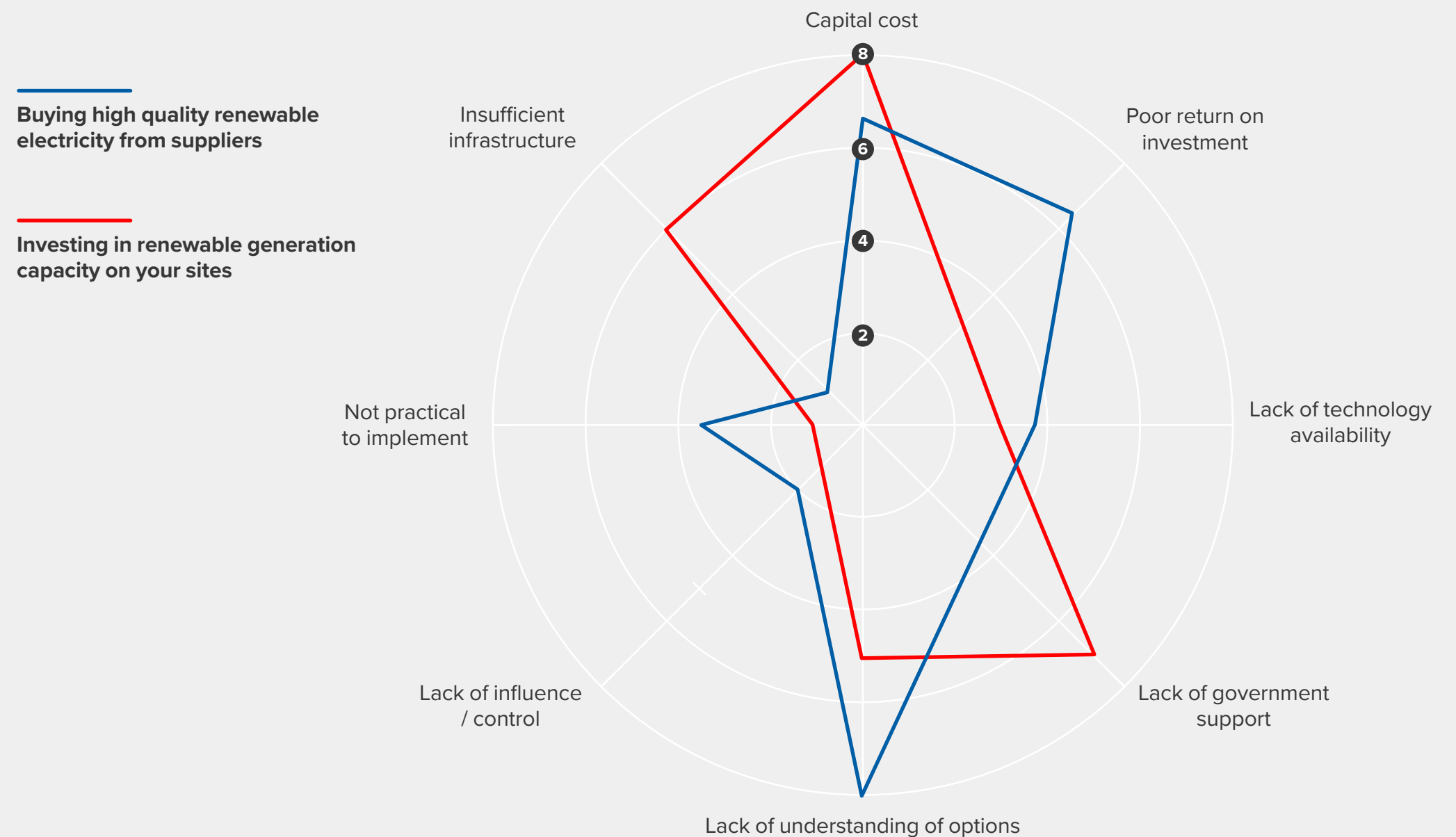
Electricity accounts for approximately 18% of wholesale operational emissions. To reduce electricity emissions, the wholesale sector has a key role to play in continued advocacy for grid decarbonisation, and expansion of solar power on warehouse roofs. The sector can also explore opportunities to use electricity outside periods of peak demand.

Only two actions are assessed for decarbonising electricity use, as the reduction actions are limited to the replacement of fossil fuel sources with renewable energy, through purchasing renewable energy from suppliers or investing in onsite renewables. These actions have different profiles of barriers to implementation.

The key concerns raised by surveyed members regarding the installation of renewables onsite centred around capital cost and the current lack of government support. Survey responses also suggest that purchasing renewables via market mechanisms (e.g. PPAs - power purchase agreements, and RECs - renewable energy certificates) aren't viewed as a beneficial investment. This may be due to a lack of understanding of options - PPAs can be used to finance offsite renewable energy generation.

Practicality, lack of control and lack of technological availability were ranked low among listed barriers. This suggests that actions on decarbonising electricity use could be prioritised in the short term if financial barriers are overcome.

FIGURE 7: RELATIVE RANKING OF BARRIERS TO ACTION ON RENEWABLE ELECTRICITY





RENEWABLE ELECTRICITY

Transition enablers

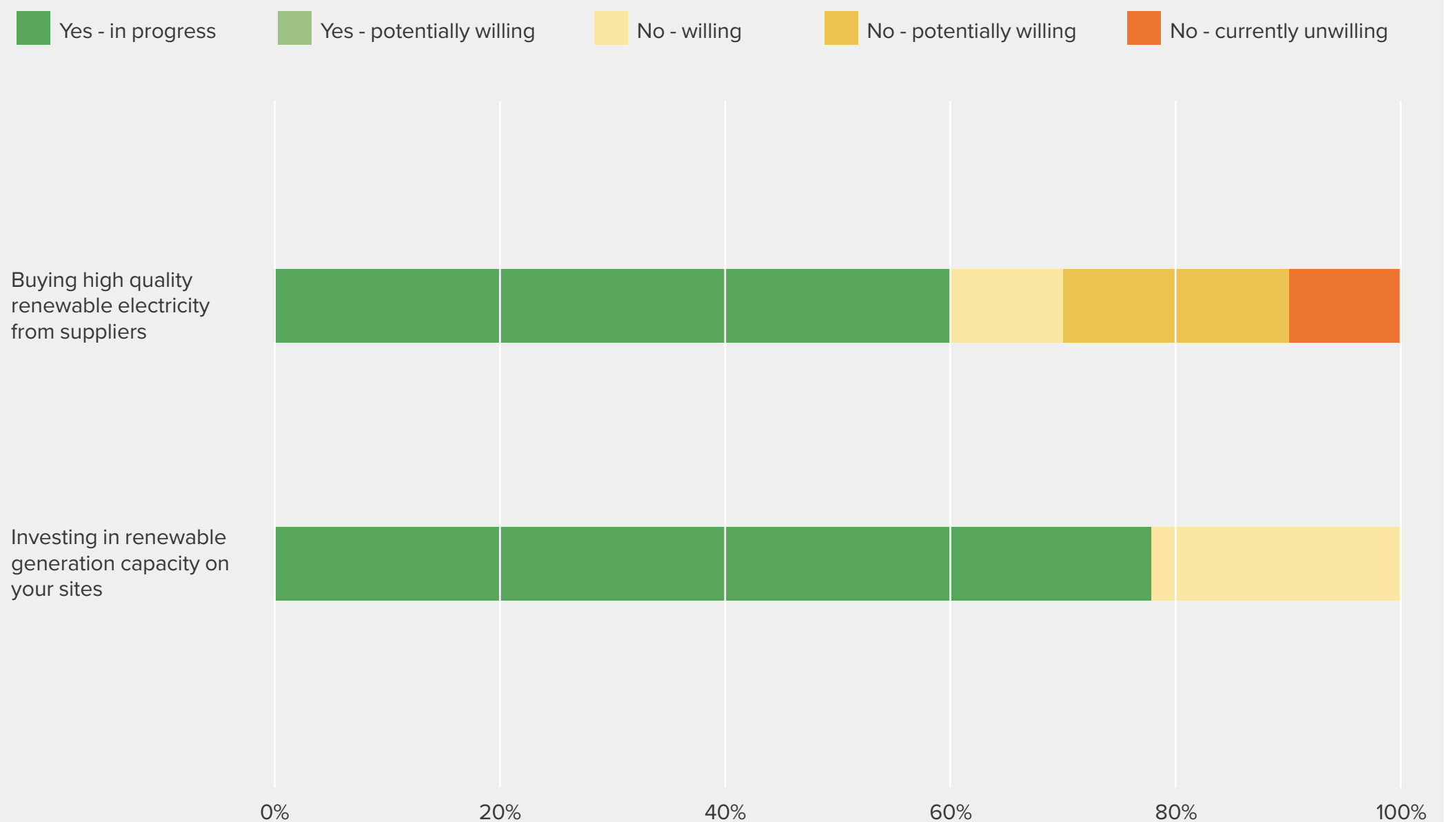
A higher proportion of those surveyed are willing to invest in renewables onsite rather than through suppliers. This trend away from buying renewable electricity among surveyed members is due to issues with Solar Power Capacity from SSE and Scottish Power. Additionally, energy suppliers are often not able to guarantee renewably sourced energy despite being on the 'green' tariff. Other members are looking at CPPA (Corporate Power Purchase Agreements).

Some members surveyed have implemented solar power onsite. The willingness to do this is limited by a lack of infrastructure which is directly linked to the age of the building, and concerns over whether the investment would generate cost savings.

SCOTTISH GOVERNMENT POLICY ENABLERS

- Ensure local planning system and grid connection permitting do not slow deployment of renewables in warehousing.
- Extend financial support on capital investments to ensure maximal deployment of renewables in warehousing by 2040, to support flexible charging of goods vehicles.
- Review of Non Domestic Rates (NDR) to ensure relief can be widely accessed by wholesalers to encourage investment in onsite renewables.

FIGURE 8: DEGREE OF CURRENT IMPLEMENTATION OF RENEWABLE ELECTRICITY ACTIONS





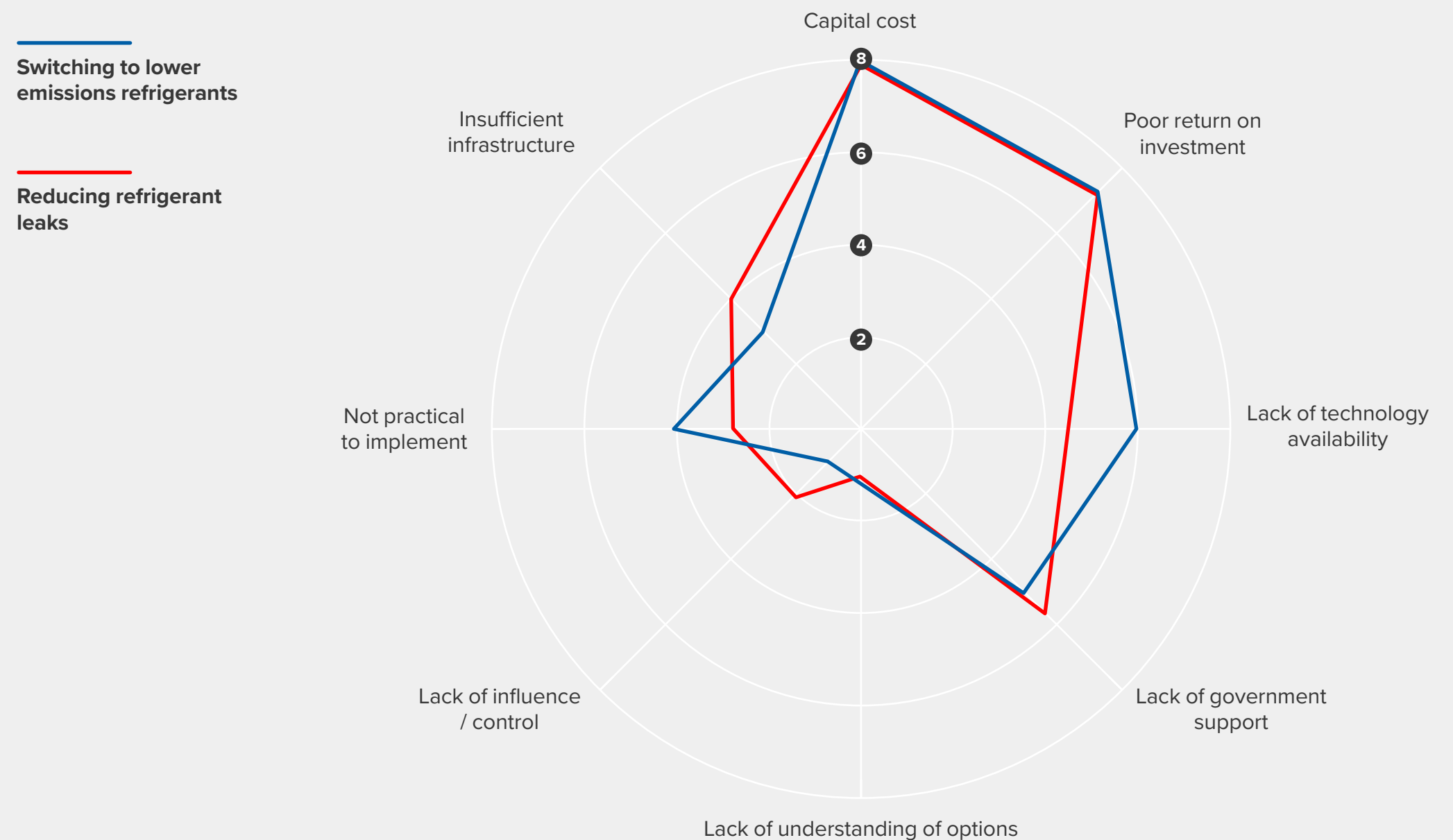
LOW-CARBON REFRIGERATION

Barriers to action

Refrigerant leakages account for c. 7% of operational emissions from the Scottish wholesale sector. F-gases, used in refrigeration units to cool the interior, which have significant impact, despite generally being released in small quantities. Actions to reduce this emissions source include reducing leakages via better monitoring and equipment, and substituting F-gases for a low-carbon alternative e.g. CO₂.

The use of F-gases has been subject to regulatory requirements since 2006 and so, unlike other emissions sources, the key actions were familiar and already being implemented by many of the members surveyed. This explains why barriers such as lack of understanding and insufficient infrastructure rank lower as they were likely overcome some time ago. Furthermore, as refrigerant emissions typically occur in cooling units either in buildings or on vehicles, which are owned or operated by wholesalers themselves, lack of control is not preventing decarbonisation. That said, significant barriers to achieving the scale of reduction required to reach net zero do remain. There is a strong degree of unity between the two key actions, with cost, investment return, and lack of technological availability representing the greatest barriers both for substitution and efficiency. This commonality persists when analysing responses across members from different geographies and operational scale. Therefore, measures such as introducing financing options supported by the public sector, emerges as a clear pathway to overcoming these barriers and enabling refrigerant emissions to be eliminated.

FIGURE 9: RELATIVE RANKING OF BARRIERS TO ACTION ON LOW-CARBON REFRIGERATION





LOW CARBON REFRIGERATION

Transition enablers

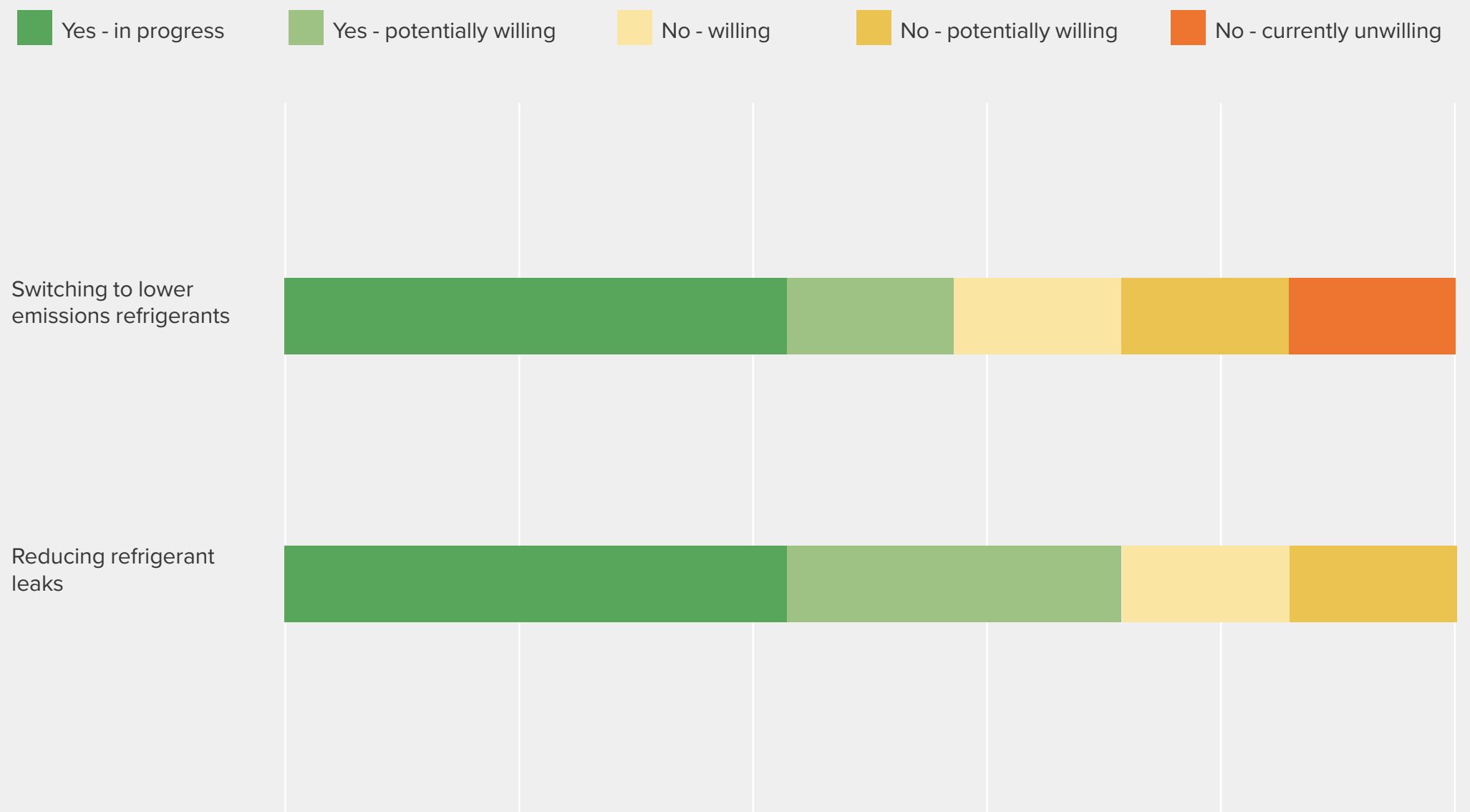
There is a relatively low proportion of members who have already progressed on either of the two actions listed. This is unexpected due to the fact that, as mentioned previously, the use of F-gases has been regulated for sometime. However only half of those who completed the survey responded to this question, suggesting that perhaps some of those who didn't state a 'willingness' to implement actions may be already doing so.

Progress made by the members that are already implementing actions includes installing CO2 back up plants and swapping out R404A with ammonia before 2030. Those who aren't currently implementing any reduction initiatives expressed lack of time and resources as a reason for inaction as this topic is not seen as a priority area.

SCOTTISH GOVERNMENT POLICY ENABLERS:

- Define a clear plan including dates and targets for phasing out refrigerants with a high Global Warming Potential resulting in phase out of F-gases by 2040, with practical support for businesses to implement these changes.
- Advocate for minimum efficiency standards for refrigerated vehicles, alongside the existing EPC standards (e.g., temperature monitoring and trailer insulation).

FIGURE 10: DEGREE OF CURRENT IMPLEMENTATION OF LOW-CARBON REFRIGERATION ACTIONS





DECARBONISATION OF HEAT

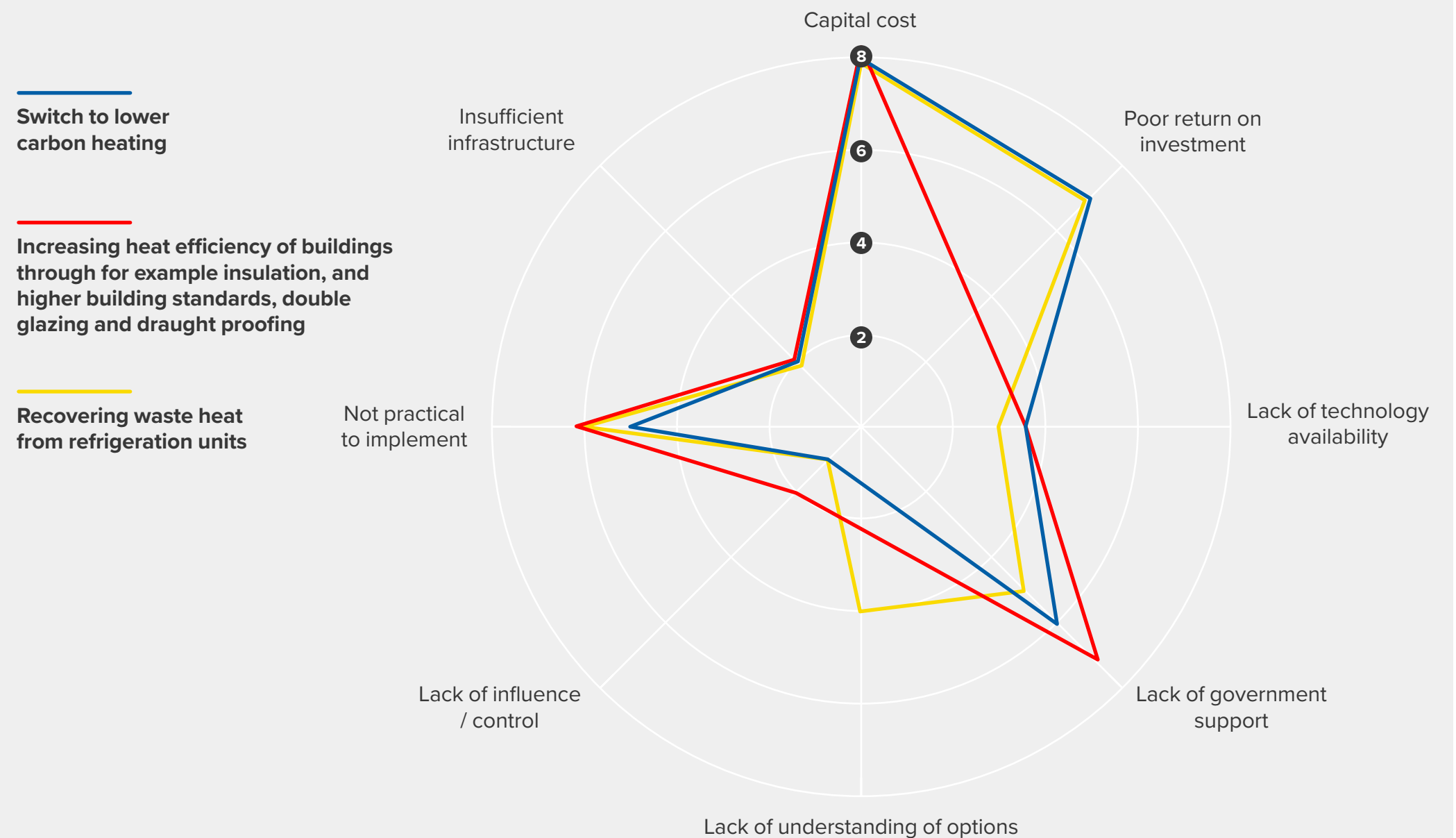
Barriers to action

Emissions from buildings account for c. 9% of wholesalers' operational emissions. These emissions result from the heating of warehouses and offices, with the majority of emissions from natural gas consumption. Reducing buildings' carbon emissions can be achieved through energy efficiency measures, switching to low carbon heating, and other retrofitting measures.

Significant challenges exist for the Scottish wholesale sector to decarbonise its, often leased, buildings. Among SWA member survey respondents, there is a strong alignment between the barriers preventing the implementation of heat decarbonisation actions. Capital cost ranked the highest for all actions due to the high initial cost expenditure associated with transitions to both low carbon heating, and technological solutions which increase heat efficiency. Furthermore, the size and age of warehouses are both factors which exacerbates this barrier further due to the increased associated costs of inefficiencies. Beyond capital cost, there are three barriers highly ranked. These are the current lack of government support to implement carbon reduction actions, poor return on investment, and actions not being currently practical.

However despite significant barriers being present, this survey exhibits that in general members feel as though they have sufficient knowledge and operational control to implement the actions.

FIGURE 11: RELATIVE RANKING OF BARRIERS TO ACTION ON DECARBONISATION OF HEAT





DECARBONISATION OF HEAT

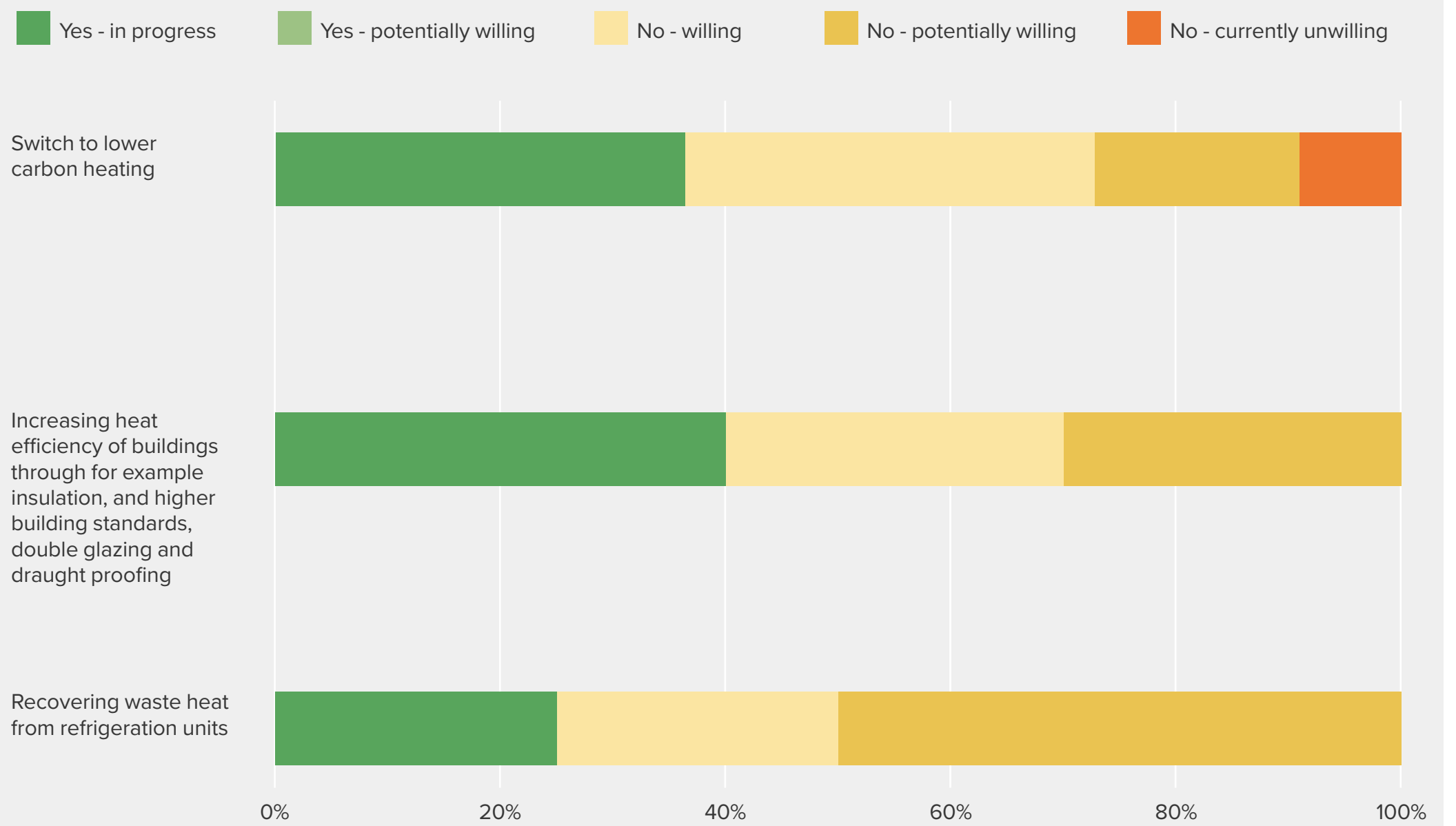
Transition enablers

In general, SWA members expressed willingness to take action on decarbonising heat in buildings, with efficiency measures being the most likely for current and future implementation. The most widely implemented actions to date were those focused on building insulation or adhering to higher building standards. However, there were members who were not implementing these actions and are potentially willing or unwilling to. For low carbon heating, the challenge of obtaining planning permissions for renewables on sites lowers willingness to begin that process. For heating efficiency, wholesalers' use of leased buildings may limit the willingness and scope for implementation of carbon reduction initiatives.

SCOTTISH GOVERNMENT POLICY ENABLERS

- Government fiscal support for building retrofits, including subsidies, grants or favourable credit facilities to fund low carbon heating solutions.
- Additional bespoke support for SMEs.
- Review of permitted development rights and Non-Domestic Rates to speed up, and incentivise, the upgrading of energy efficiency measures.

FIGURE 12: DEGREE OF CURRENT IMPLEMENTATION OF DECARBONISATION OF HEAT ACTIONS





VALUE CHAIN ENGAGEMENT

Barriers to action

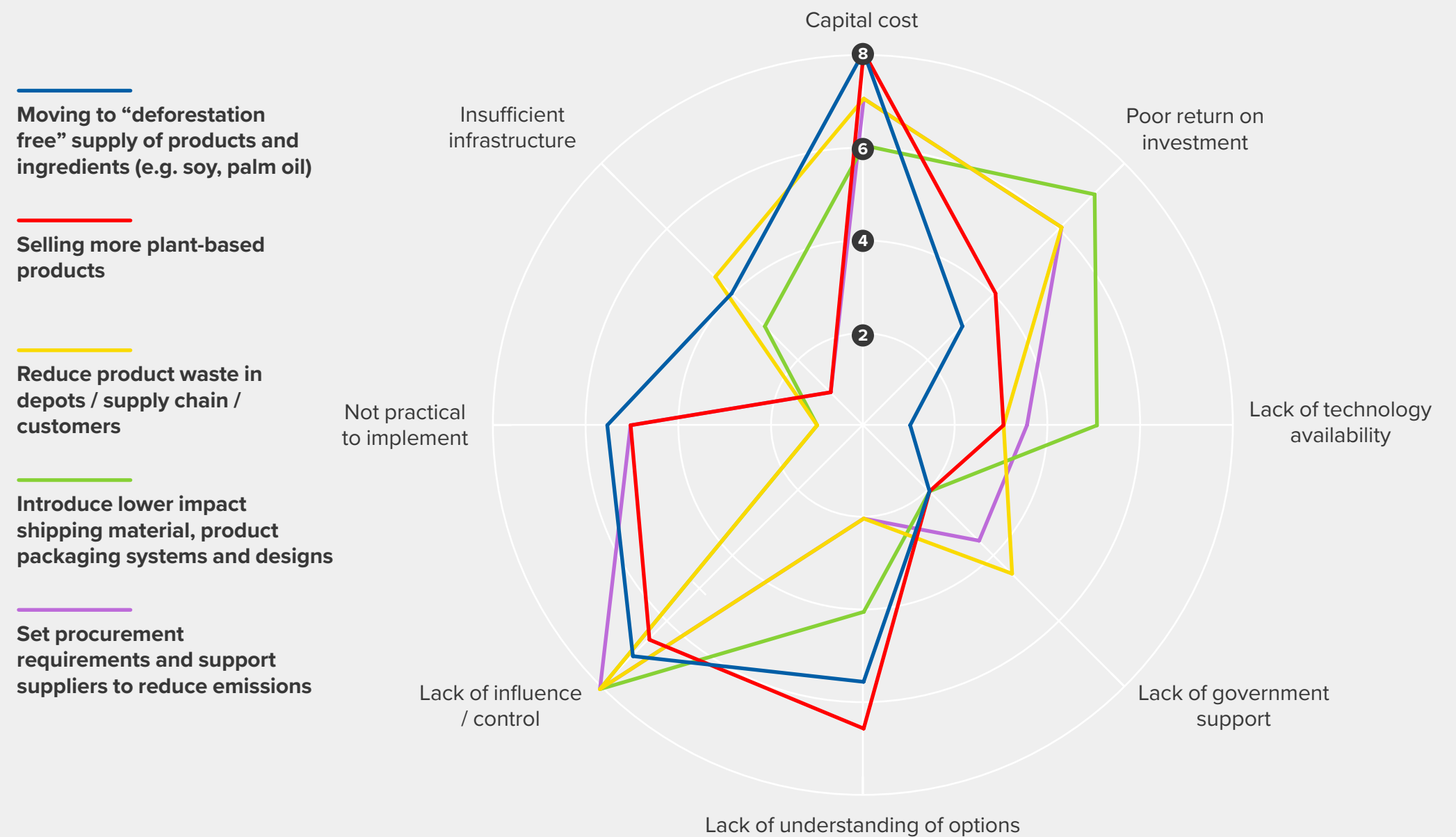
Value chain, or Scope 3, emissions are emissions that occur in the upstream and downstream activities of an organisation, such as purchased goods and services, waste disposal and employee commuting. Value chain emissions make up a significant proportion of wholesalers' climate impact, with [FWD research](#) showing that they represent ~96% of the sector's total value chain footprint.

The two most prominent barriers to reducing Scottish wholesalers' value chain emissions were found to be lack of influence and cost of capital, with both challenges ranking highly across all potential action areas.

SWA members surveyed cited capital cost as a particular barrier preventing an increase in 'deforestation free' and 'plant based' products in their portfolio. A lack of understanding of options also emerged as a barrier to implementation of both solutions, signalling that education and training on the topic could help to overcome this barrier.

Value chain is the only decarbonisation theme analysed where lack of influence has been ranked as a significant barrier to action. Such a finding is unsurprising given the indirect nature of these emissions compared with other themes assessed which can be addressed through interventions in wholesalers' own operations. This underscores the importance of the Scottish Wholesale Association and its members taking active steps to collaborate with their suppliers and customers to collectively reduce their value chain emissions.

FIGURE 13: RELATIVE RANKING OF BARRIERS TO ACTION ON VALUE CHAIN ENGAGEMENT





VALUE CHAIN ENGAGEMENT

Transition enablers

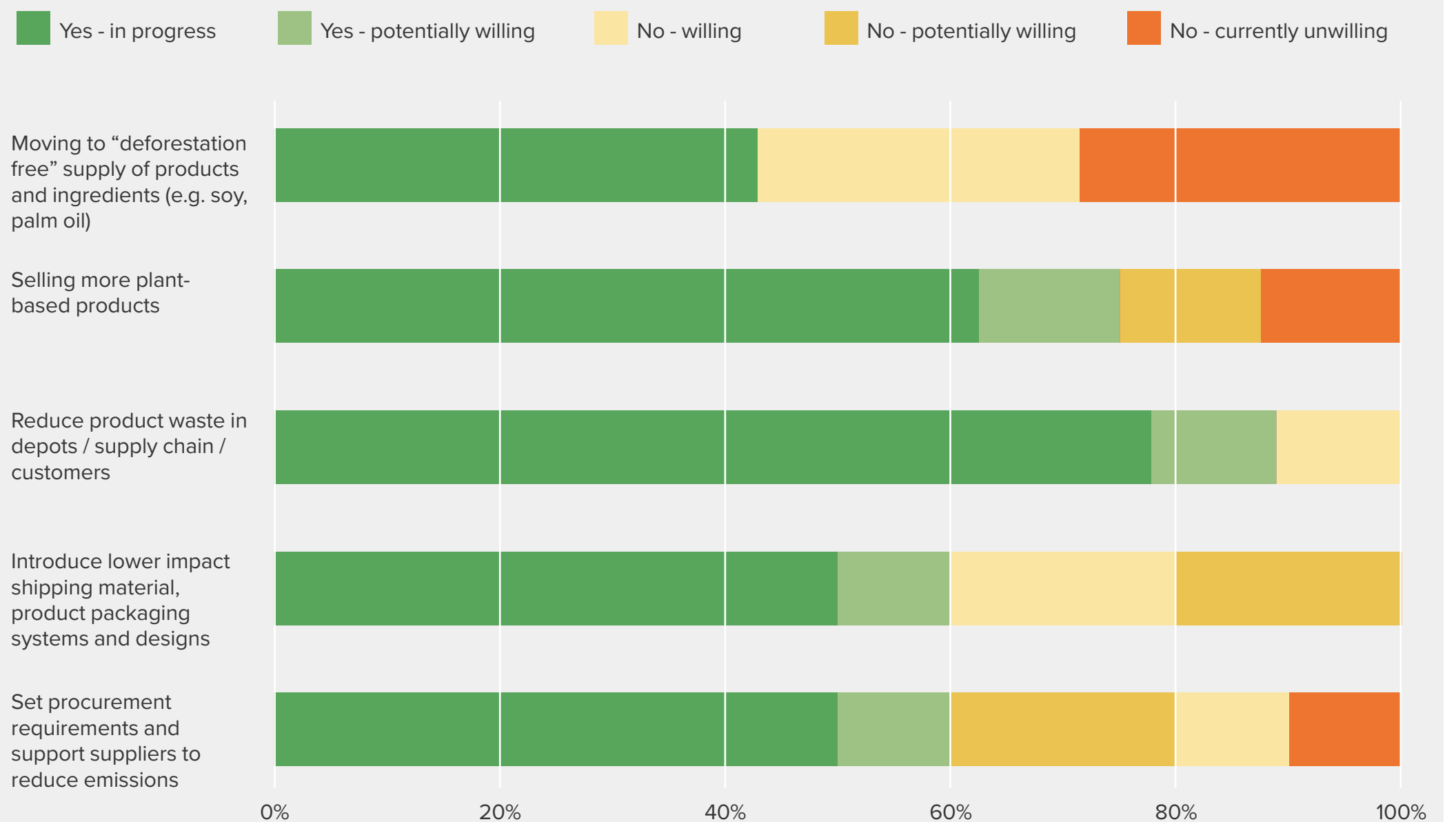
A variety of value chain decarbonisation actions are already being implemented by SWA members, with the highest percentage (75+%) of respondents taking action to reduce waste and a significant portion (60%) also increasing the share of plant-based products in their portfolio.

Moving to deforestation free products recorded the lowest level of current action - members who signalled an unwillingness to take this action cited practicality concerns for a small business, as well as belief that such products may be less competitive. A lack of influence of small wholesalers on their suppliers was referenced as an explanation for not establishing climate-related procurement requirements.

SCOTTISH GOVERNMENT POLICY ENABLERS:

- Ensure future policies on carbon reporting, including waste are practical and can be implemented across all business types and sizes.
- Enable action on Scope 3 emissions (from farmer to consumer) through incentivising greater data availability, consistency and quality through support of existing partnerships, for example WRAP's Courtauld Commitment.

FIGURE 14: DEGREE OF CURRENT IMPLEMENTATION OF VALUE CHAIN ENGAGEMENT ACTIONS



Case Studies: SWA members taking action

Dunns Food and Drinks deliver on sustainability drive

Dunns Food and Drinks, which serves more than 2,000 customers across Scotland, has invested £1.5 million

in sustainability measures, including a £1m energy-efficient CO2 freezer, solar panels, and LED lights with motion sensors. These initiatives are part of the firm's long-term commitment to net zero.

The Blantyre-based wholesaler's car fleet is now 95% electric, and 100-years after introducing its first motor powered delivery lorry, the firm has also been trialling an electric van as part of the Scottish



Wholesale Association's decarbonising wholesale project.

"This is a major investment in our future and the future of Scotland's food and drinks industry. This investment will secure more jobs within our community and is another step towards long-term sustainability goals" said Julie Dunn, operations director at Dunns Food and Drinks.

Mark Murphy use technical solutions to prevent emissions from refrigerant leaks

The ability to refrigerate products is critical for wholesalers. However, fluorinated gases (or F-gases) leakages from refrigeration units are a considerable source of emissions. These gases are colourless and odourless, meaning leaks are hard to detect.

At Edinburgh-based wholesale company Mark Murphy, part of Dole Foodservice, technological solutions to help prevent refrigerant leaks have been implemented. By investing in a calibrated leak detection system, their equipment now has sniffers located in key places where leaks are most likely to occur. Any gas picked up sends a signal to a 24-hour temperature monitoring system, which will sound an audible alarm and send an email alert to the responsible



manager.

Chillers are also tested for leaks and pressure testing of the refrigerant at least twice a year, with any gases lost reported. Refrigerated vehicles are subject to a minimum annual leak detection and pressure checks, with any vehicle found with gas leaked notified to the company transport department.

Policy Asks and Stakeholder Actions

Priority policy asks from the SWA



Capital cost support for a swift vehicle fleet transition

This report shows that the capital cost of the transition to electric vehicles and a lack of confidence, is currently preventing significant action, particularly for SMEs. SWA calls for fairness and equity in targeted support for the wholesale sector through a funding mechanism equivalent to phases one and two of the Zero Emissions Bus Challenge (scotZEB). This approach would be a proportional investment that reflects the Scottish Government's National Strategy for Economic Transformation and their New Deal for Business aspirations of helping business to thrive, while maximising green economy opportunities.



Investment in zero-emission transport infrastructure

This report highlights that insufficient infrastructure for the rollout of zero emission fleets is a significant barrier to emissions reduction actions in Scotland's wholesale sector. SWA calls on the Scottish Government to present a clear direction of travel in Scotland's infrastructure network, to instil confidence to transition, with continued business financial incentives to install charging and hydrogen refuelling points, and funding to local authorities to improve their networks and commercial access to them.



Support for a rapid transition to renewable electricity

While many members are willing to invest in onsite renewables such as solar panels or wind turbines on warehouse roofs, this report shows there are still considerable barriers preventing the expansion of the Scottish renewable network. SWA calls on the Scottish Government to ensure that the local planning system, permitted development rights, and grid connection supports rather than hinders the deployment of renewables in Scotland's wholesale sector. Financial support for capital investment will continue to be crucial. SWA asks for sustained, proportionate funding that will ensure a just transition.

MEMBER ACTIONS

Priority climate actions for SWA members can be found in the [UK Wholesale Sector Net Zero Roadmap](#). The particular sections of interest are the business actions listed per decarbonisation theme (pages 15 - 37) and the 'Getting Started Guide' (pages 39 - 45). Members are also encouraged use a wholesale sector emissions hotspot calculator tool available for download on the [SWA website](#).

SWA ACTIONS

SWA will advocate for the priority policy asks, to enable operational emissions from the Scottish wholesale sector to be addressed. SWA will also pursue membership awareness and education initiatives to support members to take practical steps towards net zero, such as energy efficiency measures, deforestation-free sourcing and renewable electricity sourcing.



Appendices

Scottish wholesale sector emissions calculation methodology

A combination of primary and secondary data sources were used to calculate the emissions of the Scottish wholesale sector. To gather primary data from wholesalers operating in Scotland, a detailed climate survey was sent out to members ranging from SMEs serving parts of Scotland to large UK nationally operating companies. The survey contained fields for data on operations, emissions or energy use activities.

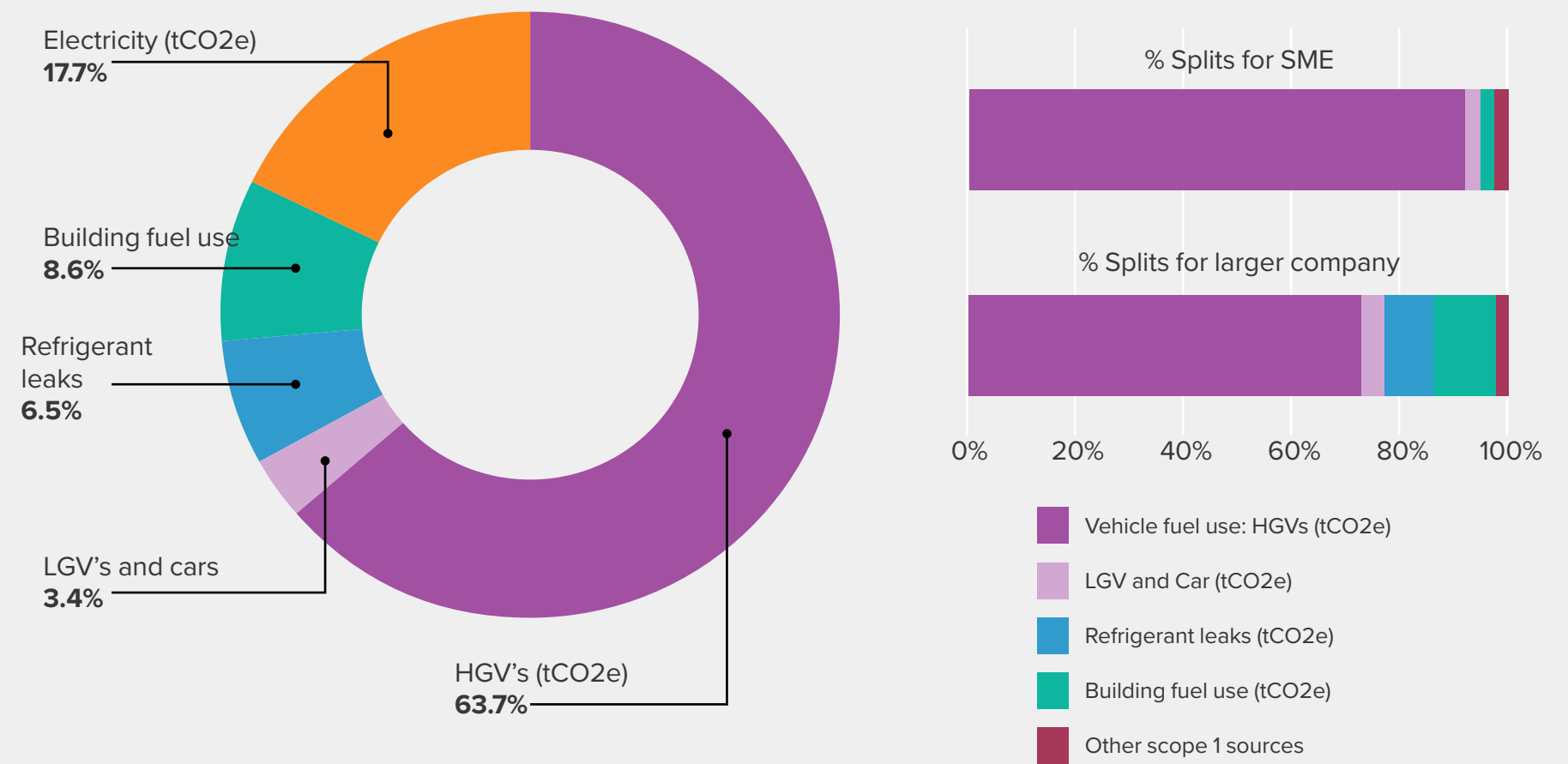
In total, 18 wholesalers operating in Scotland responded, providing either Scope 1 and 2 emissions figures or fuel and electricity data. These responses were then cleaned and aggregated to derive total Scope 1 and 2 emissions of the companies surveyed. The responding wholesalers represent 54% of the Scottish wholesale sector's total revenue. To estimate the Scope 1 & 2 emissions for the entire Scottish wholesale sector, this figure was scaled up based on the revenue generated by the responding members and the overall revenue generated by the Scottish portion (10%) of the UK wholesale sector in 2021 ([Cebr, 2022](#)).

Scope 1 emissions were broken down by emissions source, using an average of the percentage splits reported by all the members who provided reliable, granular, data on their emissions or activities. 57% of the Scottish wholesale sector by revenue provided data of high enough quality to inform the scope 1 sector split.

In all calculations, revenue was assumed to be directly proportional to logistics emissions, and emissions were scaled

up on this basis. This may not be true for all company sizes, and it's likely smaller companies won't follow this trend. When collecting data for this report, revenue was the only consistent information from all 18 survey respondents.

FIGURE A1: SCOTTISH WHOLESALE SECTOR EMISSIONS PROFILE & SCOPE 1 SPLIT BY COMPANY SIZE



Barriers, motivations and enablers survey analysis

The latter part of the survey collected information on the current level of climate action implementation by SWA members and the reasons behind this. Members were asked to rank a set of 8 barriers and 8 motivations for each respective action from most influential to least. The barriers and motivations were pre-defined based on research and experiences of other actors within the food and drink sector. An explanation of each is outlined in the tables to the right.

The data was cleaned by standardising the ranking system across all responses and where possible, filling gaps using sensible assumptions. Rankings were converted to scores which were totalled and normalised to create a rank for each theme. Additional analysis on the degree of uptake and appetite for further action was completed. Overall, the response rate ranged from 19% to 66% depending on the action.

DEFINITIONS

- An SME, for the purposes of this survey is a company with under £36 million in revenue, as per UK government legislation from 2006.
- A larger company, for the purposes of this survey, is a company with over £36 million in revenue.

MOTIVATIONS

MOTIVATIONS	EXPLANATION
Cost savings	Operational cost reductions caused by actions
Increased operational efficiency	Increased profits as operational costs decrease
Financial support from government	Current government financial support, which may be significant or lacking
Competitive differentiation strategy	Actions could differentiate wholesalers
Current regulation	Current government policy
Anticipated future regulation	Policy changes which will affect wholesalers, prompting preemptive action
PR / communications benefits / CSR	Actions need to be taken for the external facing company impact
Customer expectation / requirement	Customers will go elsewhere unless the wholesaler takes climate actions

BARRIER

BARRIER	EXPLANATION
Capital cost	Cost of the action is too high
Poor return on investment	The investment in the action does not give a financial return
Lack of technology availability	The technology to implement this action is not available
Lack of government support	There is not enough government financial or advisory support to implement
Lack of understanding of options	Members do not understand the options to take the action
Lack of influence / control	Members lack control over the aspect of business where change is required
Not practical to implement	The action is not practical to implement within the member's business
Insufficient infrastructure	There is not enough infrastructure currently to support the action
Other barrier (please describe)	Another described barrier is preventing the member from taking the action
No barriers	There are no barriers preventing the action

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