



ACEI – PLEDGE TO NET ZERO – Research Report

Understanding Employee's Commuting Patterns &
How to Make Them More Sustainable

June 2025

GARLAND
Concepts Realised

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1. PURPOSE

This report aims to examine the past and present commuting patterns among GARLAND employees, providing a data-driven basis for informed discussions between the Environmental Team and the Operations Team along with the Board of Directors.

Given the various commuting options utilized by staff, a focused analysis was conducted to identify key trends and behaviours. This was done through detail survey repeat over several years.

Subsequent reports will build on these findings to explore actionable strategies for reducing commuting-related emissions, aligning with ACEI's Net Zero 2030 objectives.

2. INTRODUCTION

ACEI (Association of Consulting Engineers of Ireland) is advocating that all member firms should commit to achieving operational Net Zero GHG emissions by 2030.

As a member of the ACEI, GARLAND has joined the pledge to be Net Zero by 2030. As such GARLAND evaluates and report on its carbon emissions on a yearly basis. One element of direct emissions GARLAND is responsible for is how its employees commuting into the offices daily / bi-weekly. GARLAND employee's transportation choices directly impact the environment, contributing to carbon emissions and ecological footprint of the company.

Additionally, this is important subject as the transportation choices employees make, impact air quality, carbon emissions, and overall environmental sustainability. By understanding how employees commute and which options they choose to do so, such as driving, public transit, cycling, carpooling, or telecommuting, employees can play a vital role in contributing to the carbon footprint of the company. The Pledge to achieve Net Zero encourages sustainable commuting. Furthermore, by adopting green commuting practices, companies can inspire positive change within their workforce and lead the way for other companies to follow.

This report aim is to examine the commuting habits of the GARLAND workforce, not merely as a matter of logistics, but as a crucial component of our commitment to Net Zero. We aim to unearth opportunities for promoting eco-friendly commuting alternatives, reducing our carbon footprint, and fostering a workplace culture aligned with environmental stewardship.

In addition, to the environmental benefits of sustainable commuting, understanding commuting patterns is crucial for several other reasons:

1. **Employee Satisfaction:** Knowing how employees commute can help tailor transportation benefits or incentives to their needs, potentially improving satisfaction and morale resulting in increased productivity.
2. **Cost Management:** Insight into commuting habits can inform decisions about parking facilities, public transportation subsidies, or remote work policies, potentially saving costs for the company and employees alike.
3. **Talent Recruitment and Retention:** Offering attractive commuting options can make a company more appealing to prospective employees and help retain existing talent.

By delving into commuting patterns, companies can enhance efficiency, reduce environmental impact, and better support their employees' needs.

3. INTRODUCTION TO GARLAND

GARLAND is an international engineering company founded in 1937 with three offices across Ireland. GARLAND provides Engineering (both Civil and Structural), Safety Management, Assigned Certifier and Planning, Social & Economic Development services world-wide.

4. SURVEYS: 2019, 2022 & 2024

In 2023 & 2024 GARLAND issued a survey to all its employees to understand their commuting patterns. The list of questions asked in this survey can be found in each graph throughout this report.

The survey set out to determine how employees commuted across three different years. The years chosen were 2019, 2022 & 2024. The initial survey covered 2019 & 2022 while in 2024 a follow-up survey was issued to all staff to track any changes to people's habits.

2019 has been chosen by the ACEI as this was the most recent "normal year" before the Covid-19 pandemic. This year has been established as the base year to be used for our comparison to measure our progression to Net Zero, year on year. 2019 was the last year all staff in GARLAND across Ireland were working in the three main offices. These are located in Dublin, Limerick and Waterford. During this year people were working full time (5 days a week) in the office. No employee was regularly working-from-home.

2022 was chosen as the "new normal year" as things got back to "normal" post-Covid-19. Where a hybrid-working policy was introduced across the company. Employees were able to work-from-home 2 days a week. Before the Covid-19 pandemic hybrid-working was not usual practice. Through this 2022 survey it was found that some employees follow the hybrid working policy and work from home 2 days a week.

The 40% decrease in the number of employees' weekly commuting trips to the office has also led to a corresponding 40% reduction in carbon emissions.

In 2024 the hybrid-working policy is still present in GARLAND. This year's survey confirms several commuting patterns which were previous established in 2022 and still prevalent in the firm.

4.1. Limitations

The total number of participants of the survey across each of the offices is shown below in Table 1. While the original survey was undertaken in 2023, it is worth noting the years in question were 2019 and 2022, any employees who worked for Garland in 2019 or 2022 but have since left, their commuting habits have not been captured in this survey. Where necessary these figures were weighted to provide comparable results to subsequent years.

For the survey carried out in 2024 this was undertaken in July, but the questions were phrased in the survey to encompass the entire year.

Table 1: Total Number of People Partaking in this Survey

	Dublin Office	Limerick Office	Waterford Office
2019	13	8	2
2022	31	11	3
2024	32	14	5

5. SURVEY RESULTS: 2019, 2022 & 2024

This section breaks down the figures for each office, Dublin, Limerick and Waterford and delves into the findings of the survey on employee commuting patterns. By understanding of these patterns, GARLAND can better tailor transportation initiatives, encourage a culture of sustainability, enhance the overall well-being of our employees. By isolating the findings from each office separately, it will provide a more targeted approach as one solution may not fit all three offices.

5.1. Method of Transport

When employees were asked:

- How did you usually travel to work? Pick one only, for the longest part, by distance, of your usual journey to work.

The employee had to choose from a list of available options shown below in Figure 1.

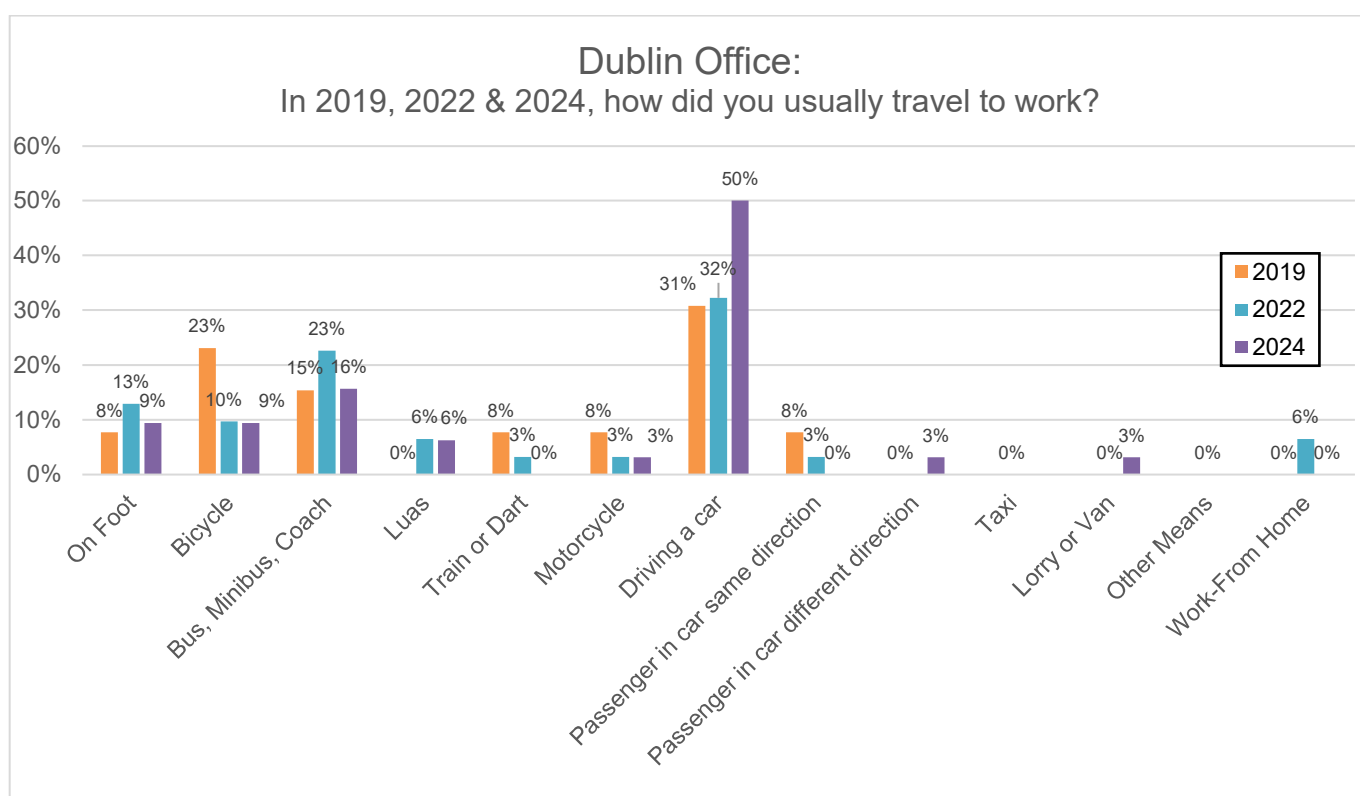


Figure 1: Method of Transport Chosen in the Dublin Office

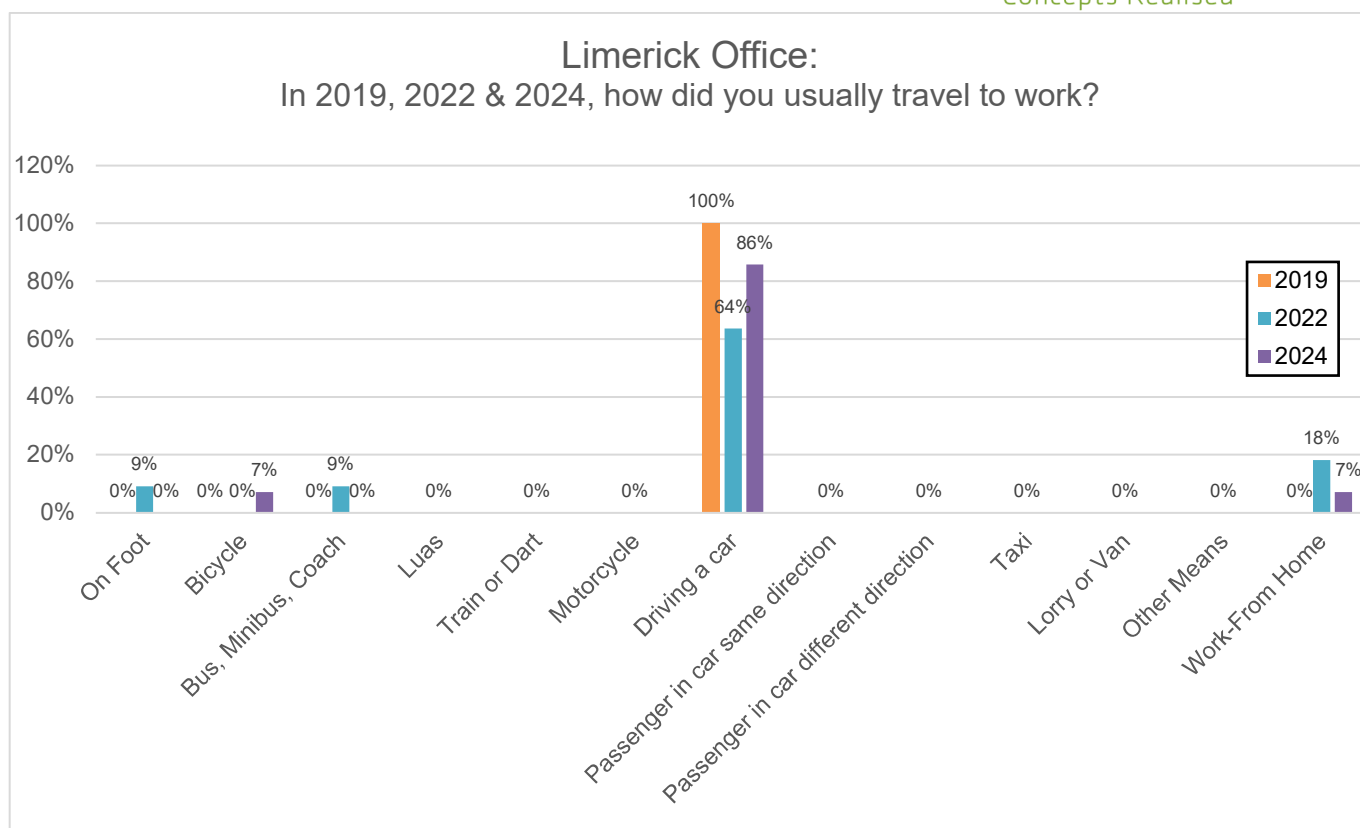


Figure 2: Method of Transport Chosen in the Limerick Office

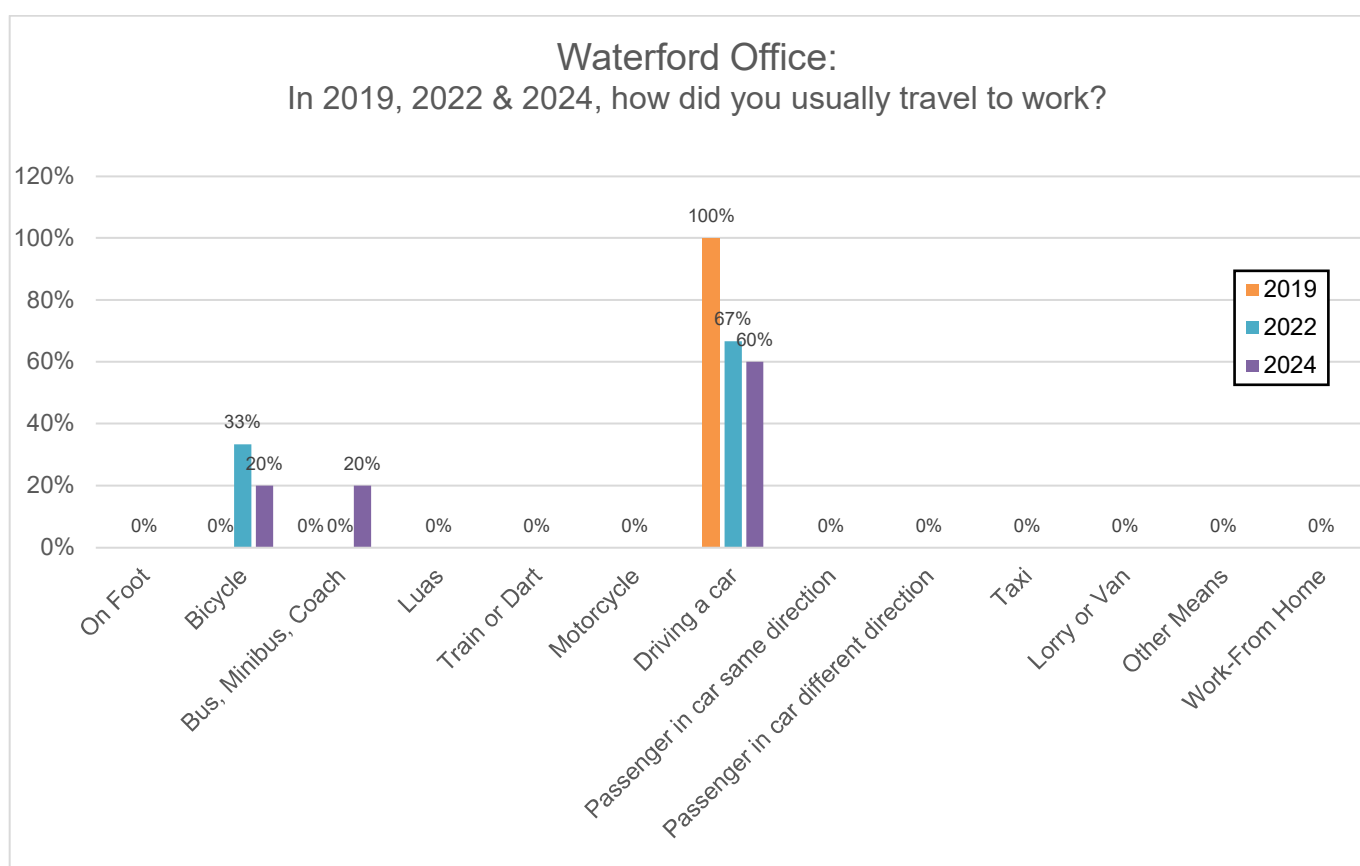


Figure 3: Method of Transport Chosen in the Waterford Office

Among the various modes of transportation surveyed, commuting by car emerges as the predominant choice across GARLAND workforce. According to the survey findings, in 2019 both Waterford and Limerick offices, “driving to work by car” was the only means of transportation utilised. This has reduced slightly in the subsequent years. However, it still very much the most prominent method of transport used.

Later in this report it is discussed in more detail, why driving to work is the most popular mode of transport for the Limerick and Waterford office. However, briefly, this is due to the lack of availability of public transport along with the distance from employee's homes to the public transport. Therefore, in the eyes of the employee driving to work is the only viable option.

In Figure 1, in the Dublin office, driving to work remains the primary mode of commuting to and from the office. It is slightly less than in Waterford and Limerick but still very much the predominant mode of commuting. This is partly due to the greater availability of public transport along with the slightly less distance in which employees need to commute. These reasons are discussed further later in the report.

Change in commuting options is evident in the Dublin office from 2019 to 2024. These are self-evident in Figure 1. While it appears, there is a significant drop of 14% of employees cycling to the office, it is in fact, the same number cycling to work in 2019 and 2024 but their proportion of the total people surveyed has reduced.

In the Dublin office 50% of employees drive their personal car to work. This equates to 16 people. It is noted that people are travelling further then pre-pandemic times, therefore, resorting to using their personal cars to drive to the office.

In the Limerick office, the percentage drop of employee's driving across the 5 years is not as dramatic as shown in Figure 2. It is, in fact, only one less employee driving to work. This is due to the increase in employees surveyed that year. In the year 2024 it has increased again to a new high level of 12 people driving to work, rather than the original 8 people in 2019.

Similarly, in the Waterford office driving as the one additional person who is joined the office since 2019 cycles to work.

5.2. Distance Travel

When employees were asked:

- In 2019, 2022 & 2024 how far did you travel to work?

The employee had to choose from a list of available options shown below in Figure 4.

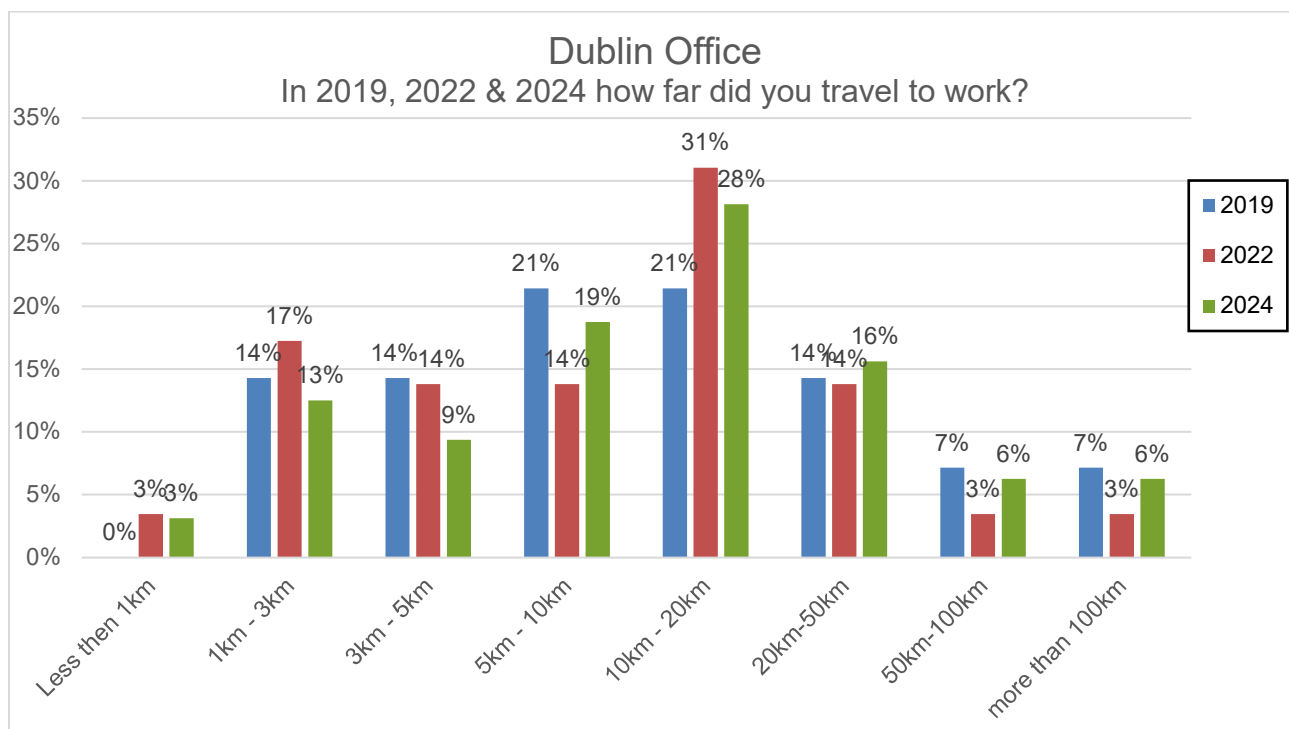


Figure 4: Distance Commuted to Dublin Office

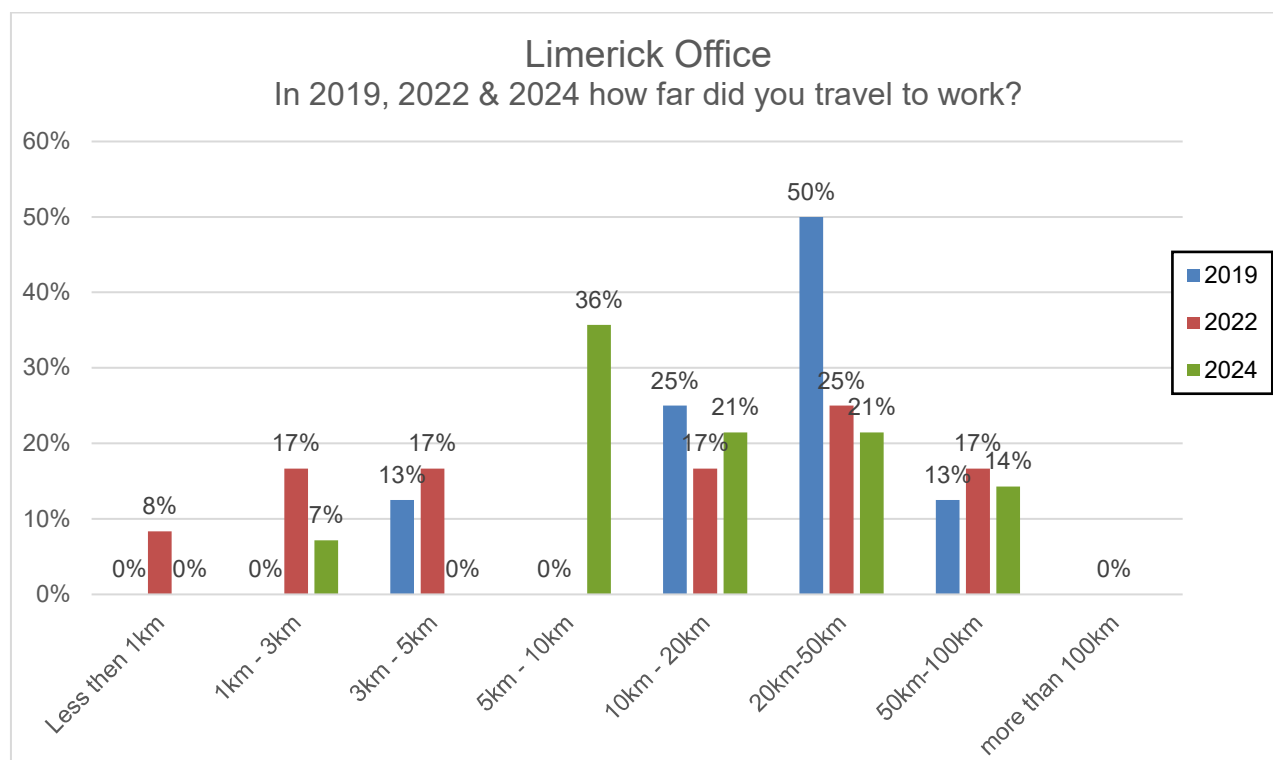


Figure 5: Distance Commuted to Limerick Office

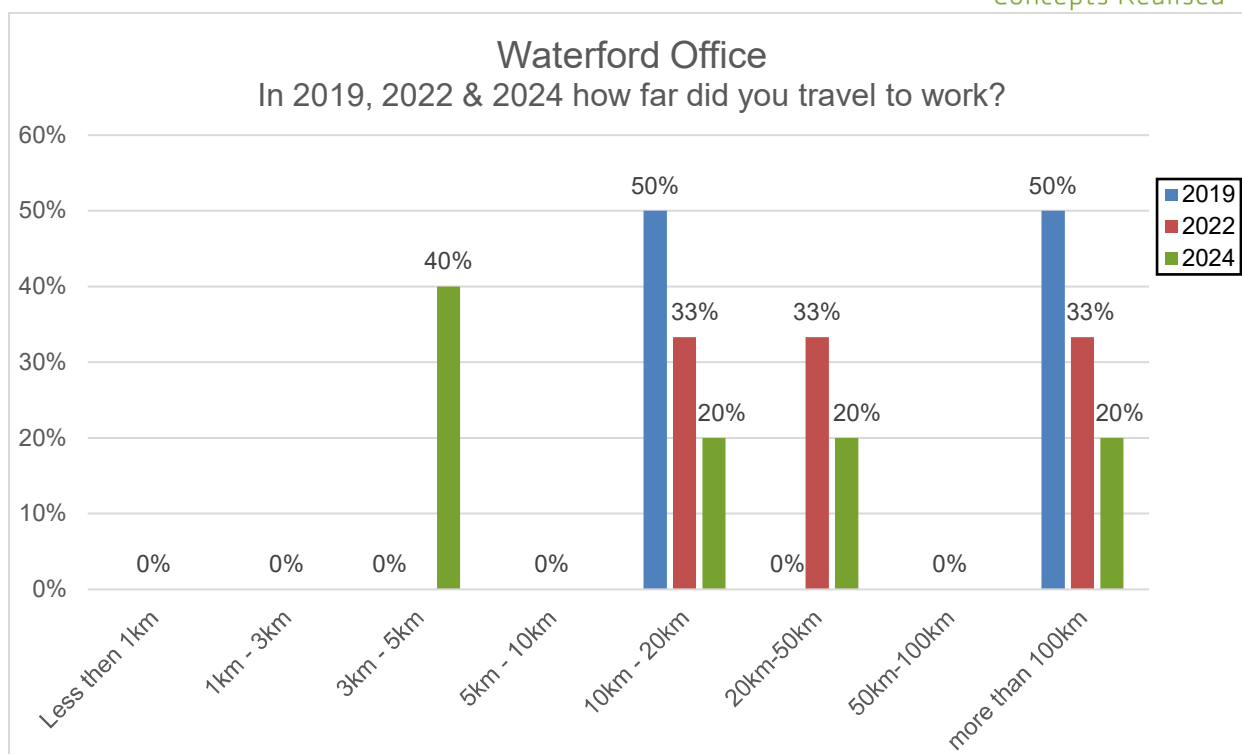


Figure 6: Distance Commuted to Waterford Office

The survey reveals a notable trend among our workforce: in 2019, a significant majority of employees commute distances exceeding 20 kilometres to reach each of the offices. These finding sheds light on the considerable distances many of our employees travelled on a daily basis, underscoring the challenges associated with long commutes discussed in the report.

Post Covid-19 it is evident that, employees of GARLAND have further to commute with majority, travelling over 10km to the offices. The Limerick office is at the exception to this. Where the same number of employees still live more than 20 km away from the office. However, the new employees who have started in more recent years are living much closer to the office, within a 10 km radius of the office. The same pattern has taken place in Waterford.

5.3. Time Taken to Commute

When employees were asked:

- In 2019, 2022 & 2024 how long did it take you to get to work?

The employee had to choose from a list of available options shown below in Figure 7.

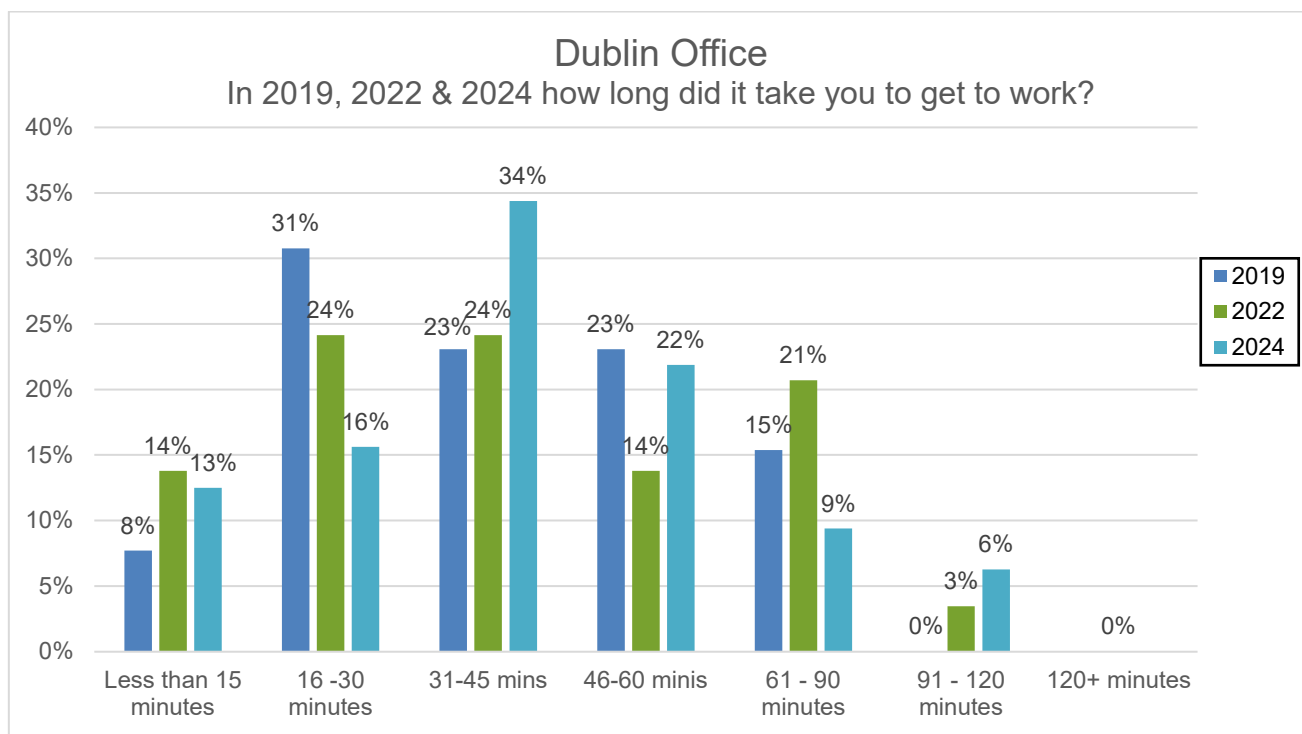


Figure 7: Time Taken to Travel to Work – Dublin Office

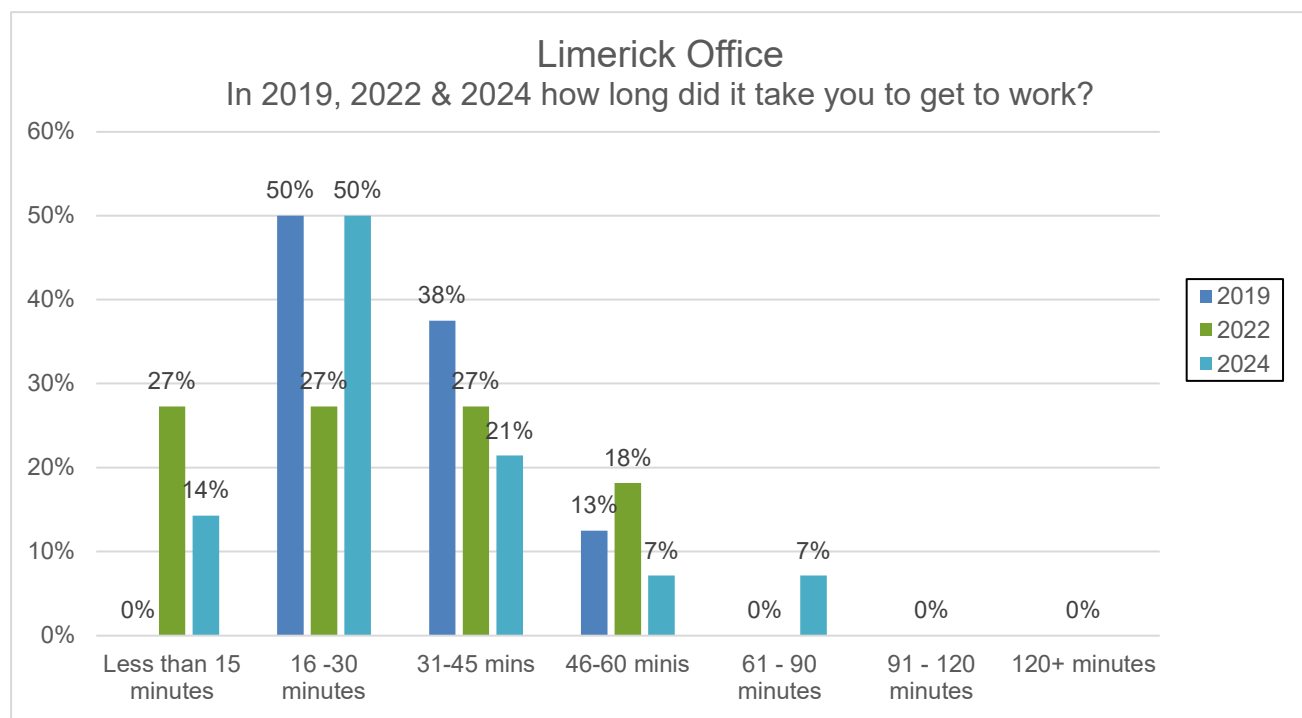


Figure 8: Time Taken to Travel to Work – Limerick Office

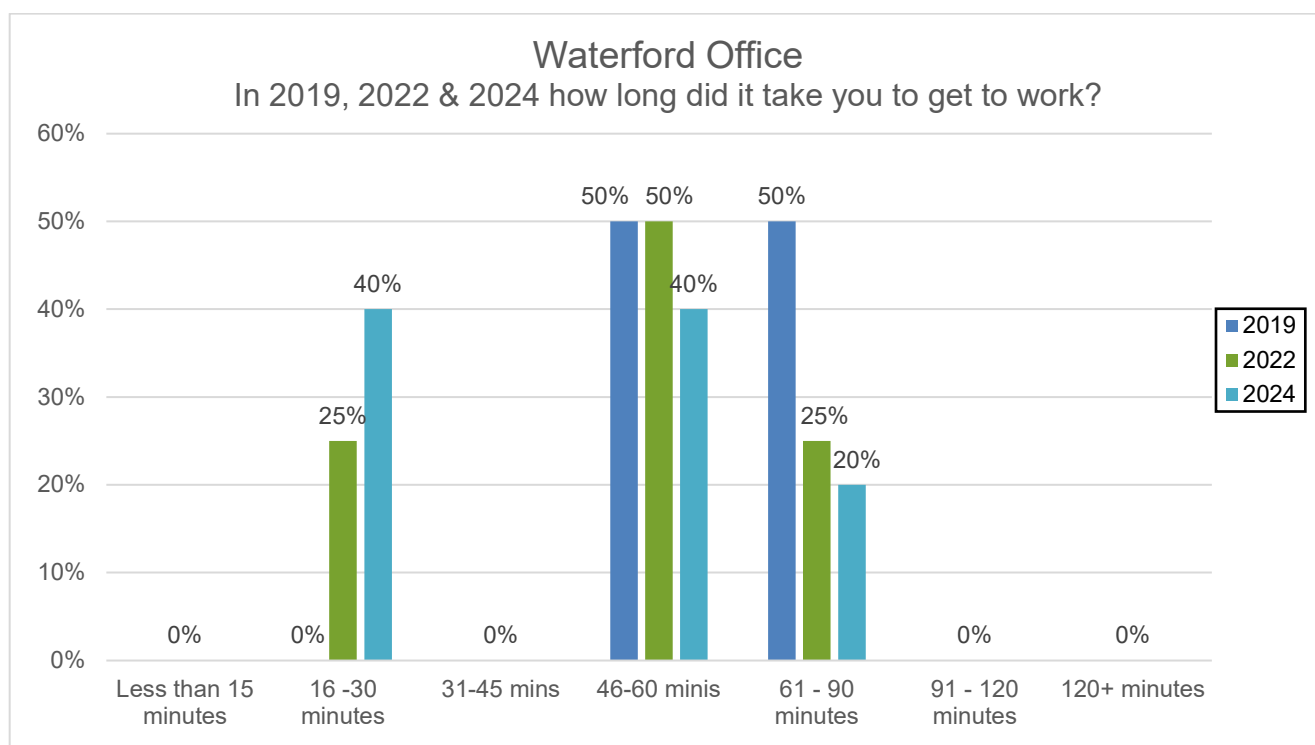


Figure 9: Time Taken to Travel to Work – Waterford Office

Taking into account majority of GARLAND employee travel by car with a distance of over 20 km it's understandable that their journey time is averages between 30 minutes to 60 minutes.

As it can be seen, on average across the Dublin office, there has been an increase in commuting times by approximately 15 minutes. This follows the same pattern as the increase in distance employees are travelling to the offices.

As mentioned previously, the Limerick Office is the exception to this where the new employees appear to reside relatively closer to the office, resulting in a reduction in travel times between the years 2019 and 2024. From reviewing the individual answers from the survey, it is the younger employees who appear to live close to the city centre within a few minutes of the Limerick office.

5.4. Reasons for Choosing Car Over Public Transport

When employees were asked:

- In 2024, if you travelled by personal car to the office, what were the limitations which made you drive to work rather than taking public transport. Please pick a number of options which apply to you.

The employee had to choose from a list of available options shown below in Figure 10.

This question was asked twice, once in 2022 and then again 2024 to assess if people's reasons for choosing to drive rather than take public transport have changed. A number of additional options were included to the 2024 survey but the same core reason from 2022 were still the most popular.

Where "other" was selected see immediately below these graphs where it is discussed.

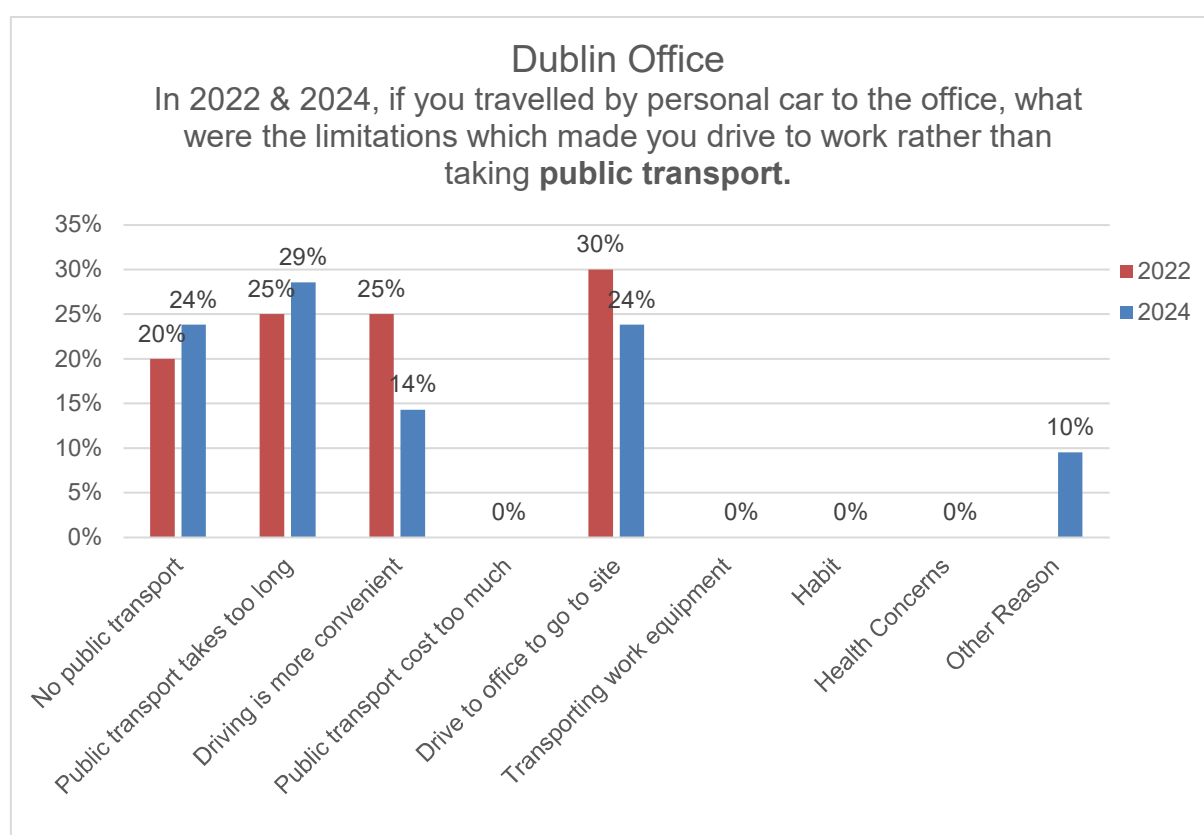


Figure 10: Driving Over Public Transport – Dublin Office

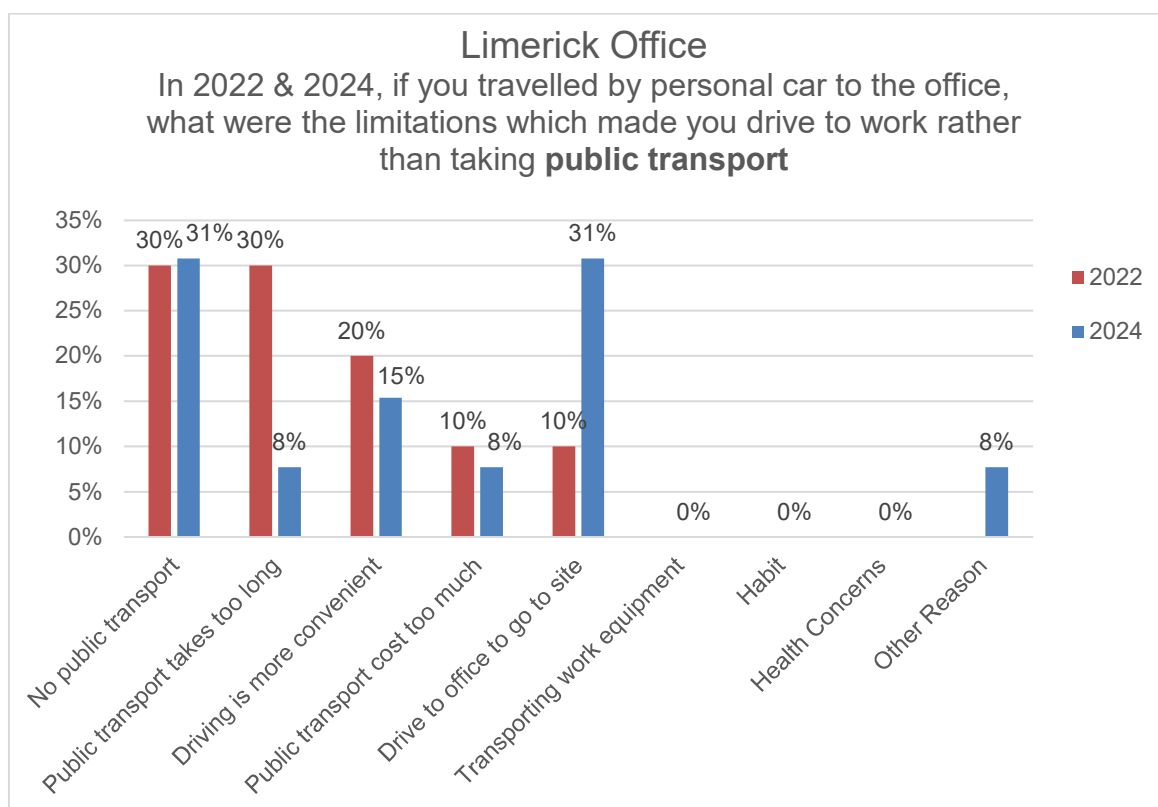


Figure 11: Driving Over Public Transport – Limerick Office

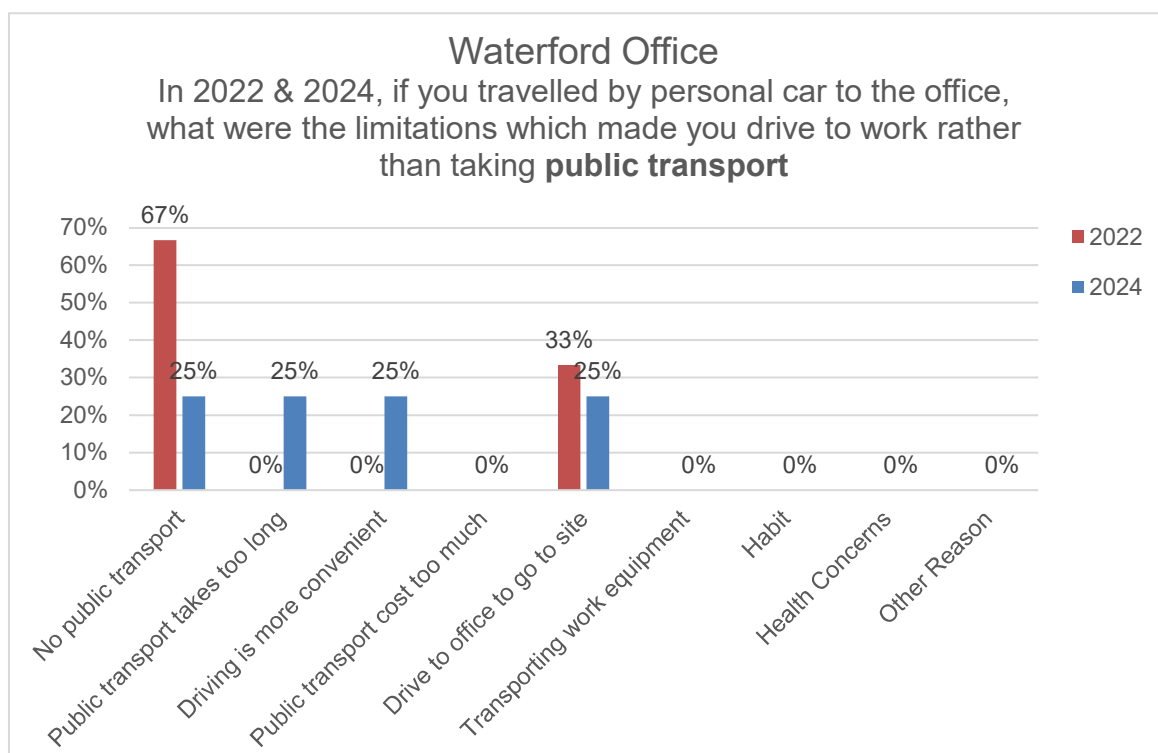


Figure 12: Driving Over Public Transport – Waterford Office

It is very plainly seen from the answers from GARLAND employees the availability of public transport and the time require to use it, is the main reasons why people choose to drive their personal car into the office.

A number of employees selected “other” reason during the survey. In the text box attached to this question employees wrote a number of different reasons but the common theme was:

- Driving gives employees more flexibility,
- More control,
- Greater dependency.

Roughly one-third of GARLAND employees drive to work as they have to then drive to site for meeting or inspections. The Environmental Team are currently introducing Go-Car to the Dublin and Limerick offices. This is rental car system which allows to hire a car on an hourly basis. The service could dramatically reduce people driving to the office if they had another method to get to site. This proposal is discussed later in the report.

5.5. Reasons for Choosing Car Over Walking or Cycling

When employees were asked:

- In 2022 & 2024, if you travelled by personal car to the office, what were the limitations which made you drive to work rather than cycling / walking. Please pick a number of options which apply to you.

The employee had to choose from a list of available options shown below in Figure 13.

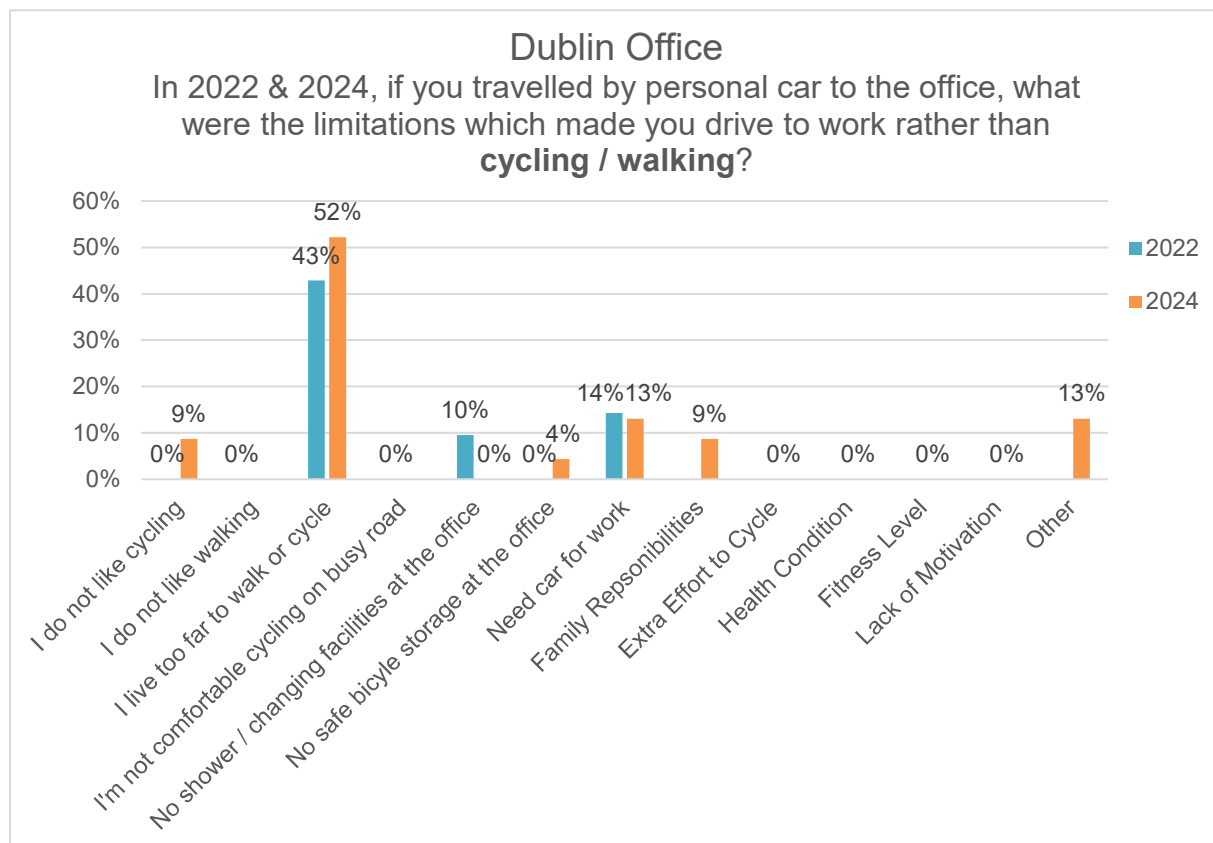


Figure 13: Why Car Over Walking or Cycling - Dublin Office

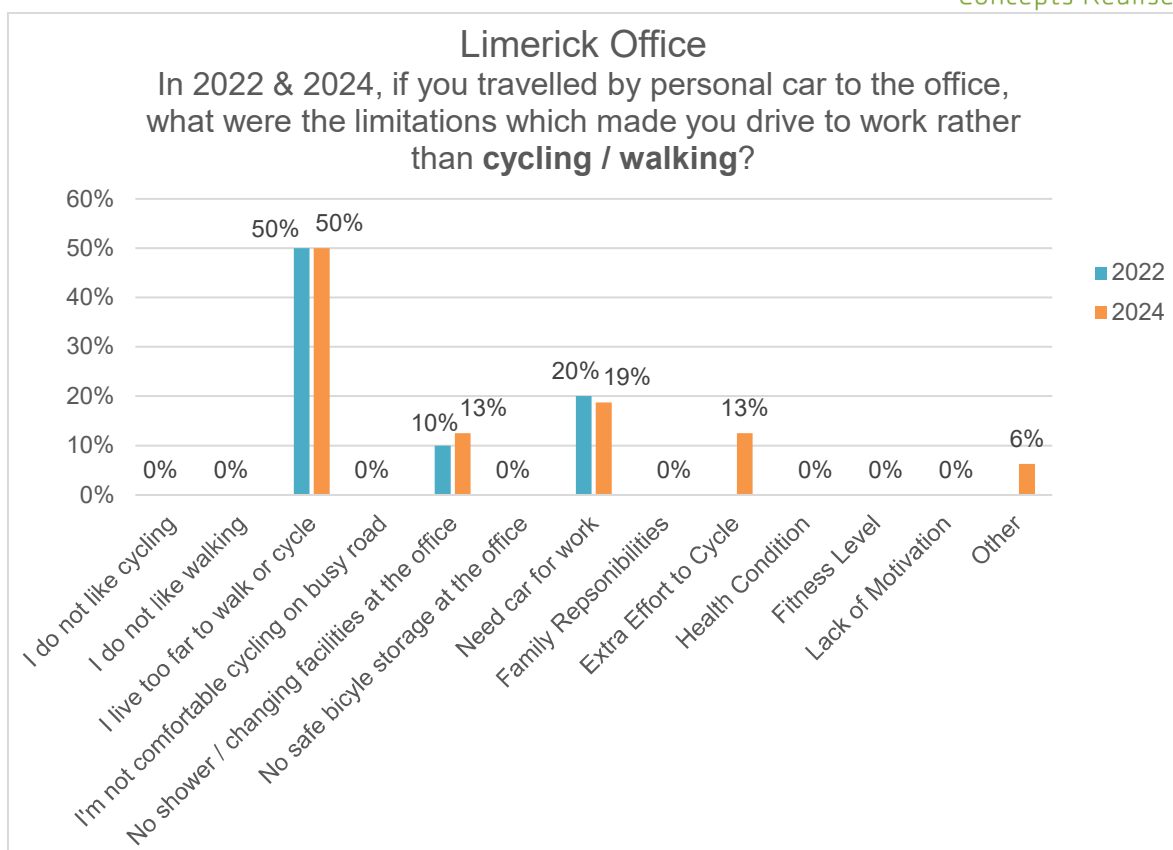


Figure 14: Why Car Over Walking or Cycling - Limerick Office

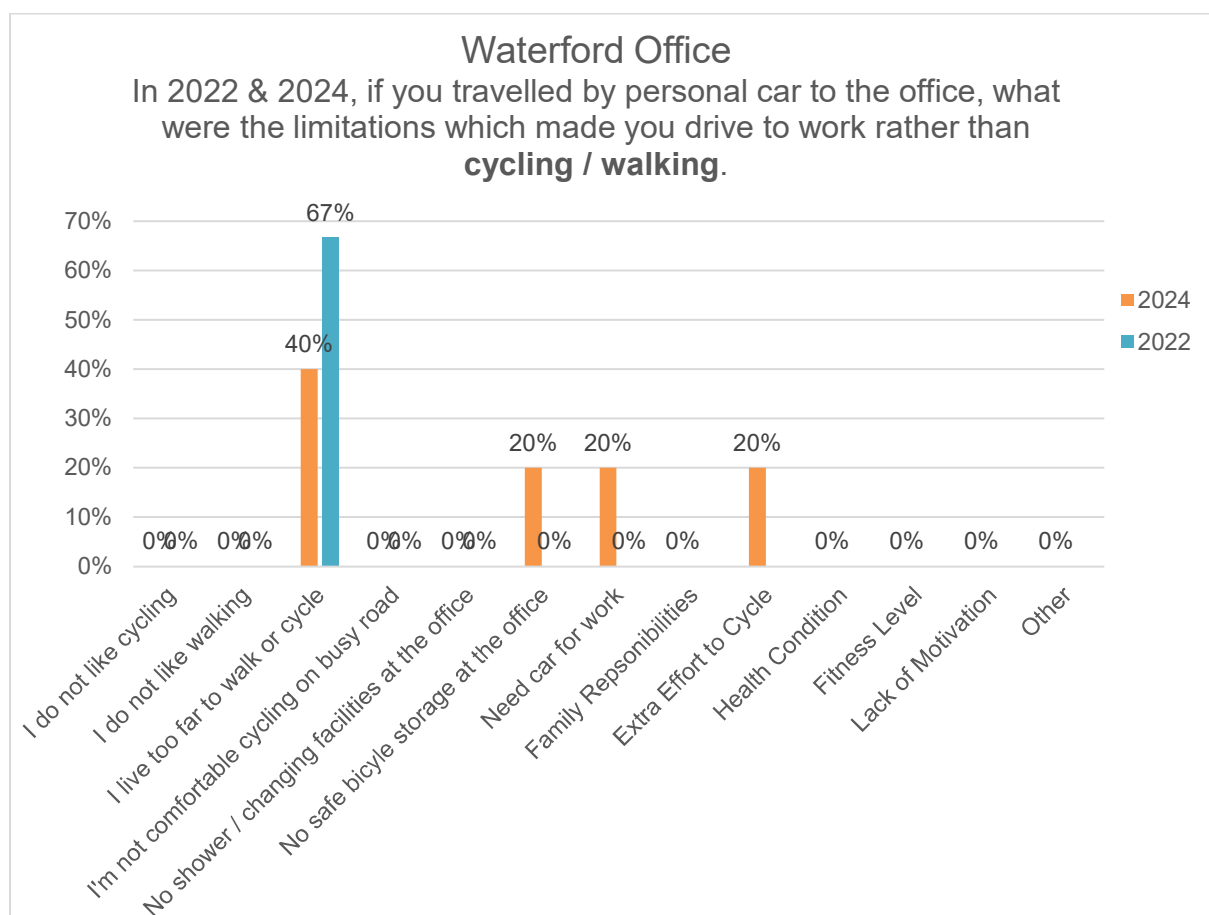


Figure 15: Why Car Over Walking or Cycling - Waterford Office

The majority of people cited "it is too far to walk or cycle" as their main reason for driving to the office, with this accounting for 50% to 70% of GARLAND employees. However, most of these employees commute less than 10km to work. Even though the average cycling commuting distance in Great Britain is around 15km. A 10 km bike ride typically takes 30 to 40 minutes, which is comparable to the average travel time for GARLAND employees. This suggests that cycling could be a practical option for many.

The viability of this option is also confirmed by the number of employees who want to avail of the "Bike to Work" scheme in each office, broken down in the following section.

5.6. Bike to Work Scheme

When employees were asked:

- Have you already availed of the Bike to Work Scheme within the last 4 years? 2020-2024.

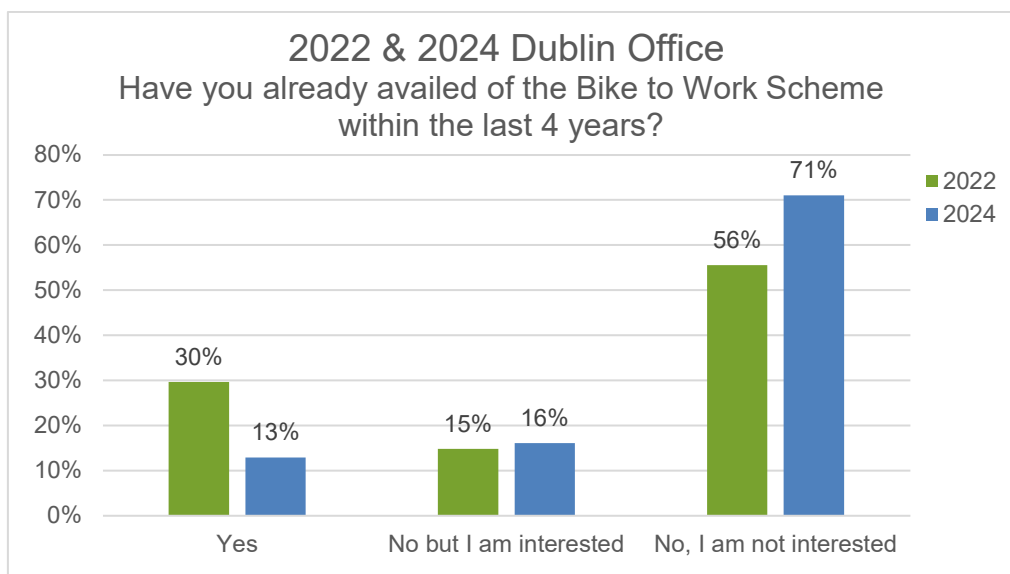


Figure 16 Bike to Work Scheme – Dublin Office

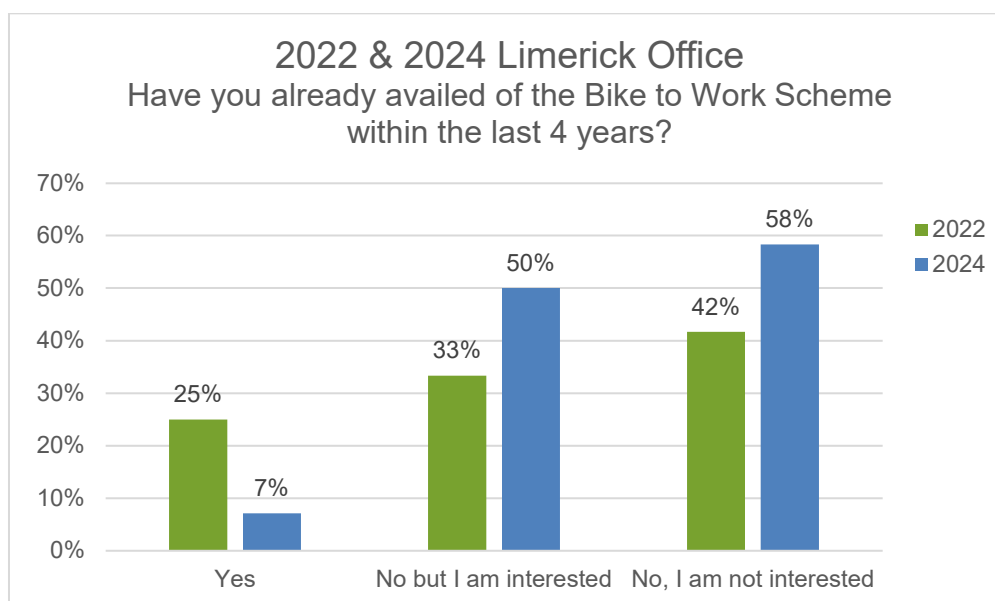


Figure 17 Bike to Work Scheme – Limerick Office

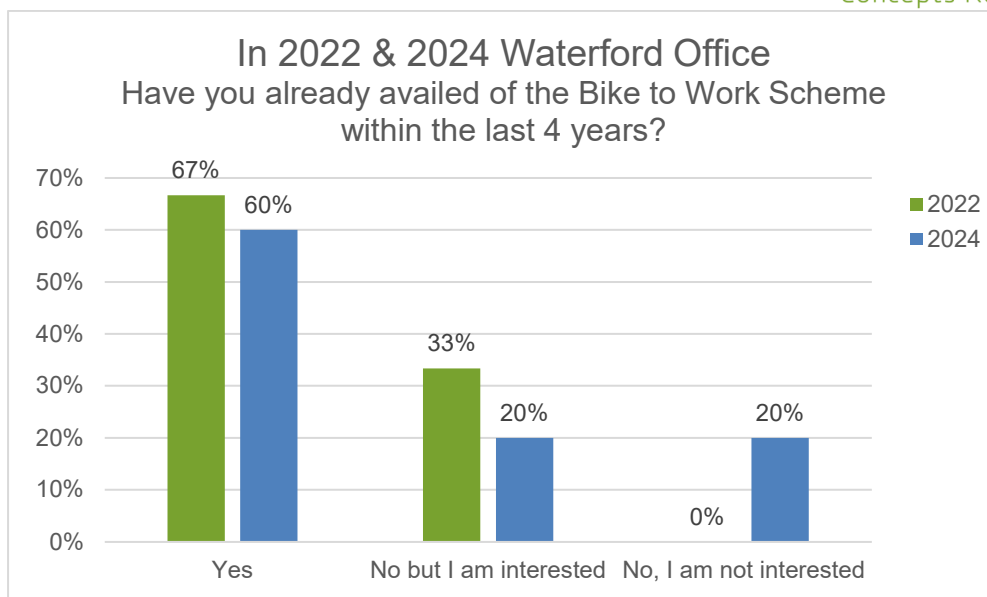


Figure 18 Bike to Work Scheme – Waterford Office

It is very clear there is an interesting in cycling to work within GARLAND's employees. This is something which Management should encourage and facilitate.

5.7. What Could GARLAND do to Encourage More Environmentally Friendly Commuting

What could GARLAND do to encourage you to travel using a more environmentally friendly mode of transport? (ie switch from driving to the office, to walking / cycling / taking public travel.)

As part of the survey Environmental Team asked employees what could the company itself do to encourage employees to travel to the office using a more environmentally friendly mode of transport. these were some of the answers people provided:

- More secure bicycle locking facilities at the office, for all offices.
- provide shower facilities or changing rooms for Limerick & Waterford.
- provide yearly bike service if employee agrees to cycling to the office two or three times a week,
- include environmentally friendly mode of transport as part of the fitness challenge.
- introduce Go-Car or similar hourly car hire scheme to facilitate ease of attending site.

6. IMPLEMENTED SOLUTIONS

Across the survey results there has been very little change in method of transport from 2019 and 2024. While distance and time required to travel to the GARLAND office has increase, the opposite direction to the desired outcome.

Addressing these challenges requires proactive measures to support employees facing long commutes, a number of these solutions have already been implemented at GARLAND

6.1. Hybrid-Work Policy

Employees can since 2022 work from home 2 days a week. This policy has been widely accepted and followed by employees. It was found that some of the employees do work from home 2 days a week. This action has helped to reduce GARLAND's commuting emissions by 40% since its introduction. This policy has further benefits helping to:

- **Reduced Carbon Emissions:** Employees hybrid working (working from home) eliminate the need for daily commutes, resulting in reduced greenhouse gas emissions and improves air quality.
- **Less Energy Consumption:** Not directly related to commuting emissions but adding benefit. With fewer employees occupying office spaces, there is reduced energy consumption for heating, cooling, lighting, and other office-related activities. This leads to lower electricity usage and, consequently, reduced carbon emissions associated with energy production.
- **Decreased Traffic Congestion:** Working virtually reduces the number of vehicles on the road during peak commuting hours, resulting in less traffic congestion and smoother traffic flow. This not only saves time for commuters but also reduces idling emissions and fuel consumption.
- **Conservation of Resources:** Hybrid working reduces the demand for office space and resources such as paper, water, and office supplies. By minimizing resource consumption, companies can decrease their environmental footprint and contribute to resource conservation efforts which is the focus of GARLAND'S Net Zero Pledge.
- **Promotion of Sustainable Lifestyles:** Embracing remote work encourages employees to adopt sustainable practices in their daily lives, such as reducing car dependency, using energy-efficient technologies, and minimizing waste generation. This shift towards sustainable lifestyles aligns with broader environmental goals and fosters a culture of environmental stewardship within the workforce.
- We recognise that the model has an impact on junior staff. When working from home they do not receive the same level of passive and active supervision that they would normally receive from their team leaders / seniors while in an office environment. Our company strives to achieve the best balance of both.

6.2. Flexible Work Arrangements

Flexible work arrangements: GARLAND has two working day times available for employees to choose from 8am – 4:30 pm and 9am-5:30pm. A large majority of employee choose to start work at 8am with the benefit of leaving home earlier in the morning and leaving the office in the evenings before peak traffic times. This in turn reduces commute times and their emissions from start-stop traffic jams.

6.3. Taxsaver Commuter Ticket Scheme

The Taxsaver Commuter Ticket Scheme is in place in GARLAND. This scheme reduces the cost of using public transport. Employers can make PRSI savings of up to 10.75%. Employees can save between 28.5% and 52% of travel costs due to tax, PRSI and USC savings. The ticket covers bus, rail, and the Luas tram system.

However, employees were surveyed and asked if they use the Taxsaver Commuter Ticket Scheme and 98% said they never do. Only one person rarely uses it so this is not a viable option to reduce commuting emissions.

6.4. Go-Car

Following the responses from the company wide survey one-third of GARLAND employees drive their personal car to work to allow them to drive to site / attend meeting externally. Environmental Team prepared and proposed setting up a Go-Car company account.

Board of Directors have approved this proposal enabling the scheme to be set up and rolled out across the company. This solution will be most effective in the Dublin Office as there are a large number of Go-Car available for hire in immediate area.

Limerick employees will benefit from this as well, as there is a Go-Car situated less than one block from the entrance of the office.

In Waterford Office this would not be less benefit for employees travelling from the office. However, there is a car available in nearby Tesco store approx. 10-minute walk from the office.

Additionally, one main advantage of Go-Care is if an employee needs to travel to a neighbouring city and can do so by the train, there are Go-Car situated at every main train station across the country.

7. NEXT STEP

The next step is to use the gathered information above to implement strategies to encourage employees to use more sustainable methods of transportation for their commute.

There are a number of different strategies GARLAND to are looking to introduce such as:

- Recognition programmes,
- Upgrading facilities and infrastructure in the three offices,
- Introduce new procedures and guidelines,
- Facilitate greater employee participation,
- Carry out further promotion of existing schemes,
- Where employees have no public transport available GARLAND will provide sustainable guidance and recommendations.
- Create fun competitions such as "alternative commuting day" or " healthy commuting challenges."

In subsequent reports each of these strategies will be broken down and discussed. These will be presented to the OPS Team & Board of Directors and then implemented across the company.

8. CONCLUSION

As part of GARLAND's commitment to achieving Net Zero by 2030, reducing company-wide emissions—including those generated by employee commuting—is a key focus. This report highlights the importance of implementing effective measures to reduce these emissions.

Understanding employee commuting habits was the first step in identifying opportunities for change. Through the analysis of this data, we aim to alter behaviours and encourage more sustainable commuting while supporting broader environmental goals.

Signed: *Ronan O'Mahony*
RONAN O'MAHONY
SENIOR STRUCTURAL ENGINEER

Date: 09 June 2025

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