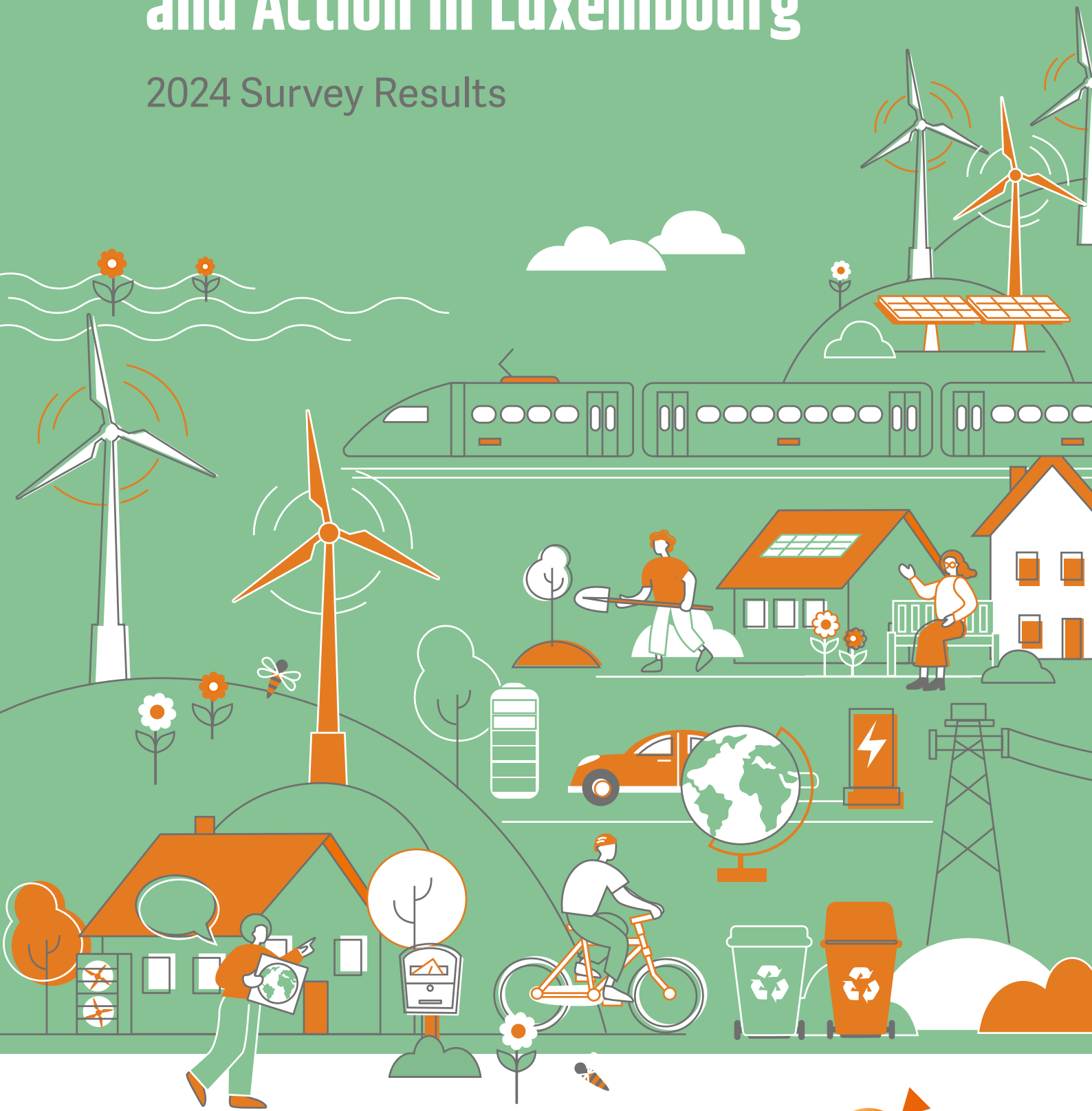
Public Opinion on Climate Change and Action in Luxembourg

2024 Survey Results



Observatoire de la Politique Climatique

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The OPC is a scientific council currently composed of nine members with expertise in a field directly related to the Observatory's mandate.

The OPC strives to make a significant contribution to informing climate change policy and practice in a science-based and impactful way. Identifying the leverage points for achieving the broadest and fastest possible change is a priority shared by all its members, given the urgency of the situation. The task of the OPC is to advise on projects, actions or measures that may have an impact on climate policy, to scientifically evaluate existing or planned measures in the field of climate policy and to analyze their effectiveness, and to propose new measures.

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Table of Contents

Executive summary

The results of this survey provide important insights about Luxembourg residents' opinions around climate change and climate action, that inform policy decisions. These insights are presented here across four main themes:

(1.) public concern for climate change and interest in climate action;
(2.) general knowledge and understanding about the causes and consequences of climate change, and its solutions;
(3.) actions and policies in the mobility sector;
(4.) climate change education in schools.

With regard to the **public's concern for climate change and their interest in climate action**, we highlight three key findings:

First, climate change is regarded as an important issue by the Luxembourg public: 88% of adults agree that climate and environmental issues are important or very important, and 83% agree that taking action to slow down climate change is urgent. Among the most important issues, adults rank climate change second only to "personal safety". Among the youth population (aged 15-21) it ranks third, behind "inequality and discrimination".

Second, respondents expect the worst impacts of climate change to fall on the younger generation. However, there is broad agreement that dealing with climate change should not be left to future generations.

Third, in line with this recognition that action should not be delayed to the future, many respondents are willing to change their own behaviour and they expect public policies to be implemented to address climate change. However, few respondents support policies that would cost them money.

On **general knowledge and understanding of climate change**, three findings stand out from the survey.

First, the adult population is familiar with basic terms and concepts around climate change – such as greenhouse gas emissions, climate change adaptation and mitigation. Beyond these terms, we find that the general adult public is substantially less familiar with more specific technical aspects of climate change or climate policy, such as carbon sinks. There is also a sizeable lack of familiarity with the term 'just transition'. More respondents are familiar with carbon taxes than with emissions trading, despite the EU's emissions trading system's 20-year existence.

Second, when analysing these figures more carefully, we learn that both the level of education of respondents and the source of knowledge and information on climate change matter for familiarity with climate policy terms. Holders of PhD degrees are around 10-25 percentage points more likely to be very familiar with most concepts than holders of primary school degrees. Respondents who get their information directly from scientists are more familiar with terms than those who get their news from traditional media (newspapers, TV, etc.), who in turn are more familiar with climate-related terms than those who get their information from social media.

Third, in terms of knowledge about climate solutions, respondents correctly identify switching from private to public transport, insulating one's home, and installing solar panels as highly effective in reducing CO_2 emissions. However, respondents dramatically overestimate the impact of recycling and buying local food for their impact on reducing emissions, while underestimating the impact of switching to an electric car (given Luxembourg's electricity mix), switching to a vegetarian diet, or installing a heat pump for heating and cooling.

When we look more closely at public attitudes towards **mobility** choices and policies – as a sector that remains a key source of emissions in Luxembourg – we highlight three main findings.

First, the car is the primary means of transport for two thirds of the population. Public transport is the primary means of transport for a quarter of the population, and 10% of the population rely on walking and cycling. About 12% of car owners own an electric car.

Second, income is an important factor in transport choices. Respondents with a net monthly income of less than 2,000 Euro are more likely to use public transport than a private car. Ownership of electric cars is strongly income-dependent: about 20% of respondents with a net monthly income of 8,000-12,500 Euro own an electric vehicle. Range and charging infrastructure anxiety as well as cost emerged as barriers to greater electric vehicle uptake.

Third, the top factors that respondents said would make them consider switching towards using the bicycle as a key means of transport include their desire to stay fit, suitable weather conditions, and a larger network of separate bike lanes.

Finally, on the theme of **climate change in the classroom**, we rely on respondents to our youth survey to learn more.

First, we find that most students have heard of climate change, but the majority does not feel well prepared to deal with it based on what they learned in school.

Second, teachers are identified as the primary leaders when it comes to climate change activities in schools. However, youth showed less familiarity with climate-related terms than the adult population and also chose climate actions that were not the most effective. This indicates that school education on climate change is not yet providing sufficient levels of climate literacy.

Third, Luxembourgish youth identified social media as their most frequent source (67%) for learning about climate change, higher than school (51%).

Take-Aways for Policymakers

Beyond providing a clear snapshot of the public opinion on climate change in Luxembourg, the survey highlights potential areas for policy action. Luxembourgers are concerned about climate change and willing to take action, and they want policies to support climate action. These include avenues for increasing public understanding of climate policy, and for identifying policy action that is both effective and socially acceptable.

First, we notice a pressing need to improve climate literacy among the public, especially on climate solutions and policies. In particular, it is striking that there is a gap in understanding on the effectiveness of different types of climate action. Policymakers may need to reflect on the need for information or awareness-raising campaigns, in combination with a roll-out of educational materials that increase climate literacy on climate solutions and policies. Highlighting the effectiveness of the most underestimated actions, and developing policies to promote their uptake and implementation, could make such actions and policies more appealing. Given the important role of teachers in shaping climate change perceptions in schools, providing support, training, information, and materials to teachers may be a particularly effective way to address low climate literacy among youth.

Second, the heavy reliance on petrol and diesel cars for transport in Luxembourg needs to be addressed for Luxembourg to meet its climate goals as elaborated in its National Energy and Climate Plan. Here, the role of policy in providing the appropriate infrastructure and enabling environment to enable people to switch to lower-emissions alternatives is crucial. Since the mode of transport is heavily dependent on income, this will require packages of policies that address all income brackets. Luxembourg's upcoming Social Climate Plan can help address the income disparities in mobility choices and preferences.

Finally, there is a tension between the public's understanding of the importance and urgency of taking action on climate change now, and the comparatively low support for potentially costly actions. Given the systemic changes required, as outlined by the IPCC in the AR6 synthesis report, future policies need to address the structural barriers and enablers for climate action.

1. Methodology

The OPC designed the questionnaire for the survey and engaged the Luxembourg Institute of Socio-Economic Research (LISER) to manage its implementation with the aim of understanding public attitudes and behaviors in Luxembourg, with a particular focus on demographic differences. LISER was responsible for coding the questionnaire into the Qualtrics survey software, selecting a representative sample from the population, overseeing the survey helpdesk, and calculating the appropriate survey weights to address any sampling biases. Once the data collection was complete, the OPC undertook the analysis of the results, with the assistance of Ghent University doctoral researcher Aygul Salmanova.

Sample Design: The survey targeted a total of 35,000 residents of Luxembourg, who were contacted via post. The sample was stratified into two distinct age groups to ensure a broad representation of the population:

- 15,000 individuals aged between 15 and 21 years (youth)
- 20,000 individuals aged 22 years and older (adults)

This division allowed for targeted questions on climate education for the youth sample along with a comparison of responses between younger and older residents, providing valuable insights into potential generational differences in attitudes or behaviors. The questionnaires of the adult and youth survey are in the appendix.

Survey Timeframe: The survey was administered over a period of almost two months, running from 6 September to 28 October 2024. To encourage a higher response rate, a reminder letter was sent to participants on 2 October 2024. This follow-up communication aimed to prompt any non-respondents to complete the survey.

Survey Language: The invitation letter that was sent included the invitation in three languages (EN, FR, DE) and the online survey was available in these three languages as well. Of the survey respondents, 38% chose the French version, 34% the German version, and 28% the English version.

Response Rate: The overall response rate for the survey was 18.5%. However, the response rate varied across the two age groups:

- 16.7% for individuals aged 15 to 21 years (youth)
- 19.8% for individuals aged 22 years and older (adults)

The slightly higher response rate from the adult sample compared to the youth sample may be partially explained by youth moving abroad for post-secondary studies.

Data Weighting and Analysis: To ensure the data accurately reflected the demographic structure of the Luxembourg population and to correct for any non-response bias, LISER calculated appropriate survey weights. These weights were applied to the pseudo-anonymized data before the OPC conducted its analysis. This process ensured that the survey findings were representative and could be generalized to the broader population of Luxembourg.

More details on the methodology, including definition of the sampling frame, non-response correction and calibration can be found in the online appendix “Sample Design and Weighting Methodology”.

Socio-economic characteristics of the survey respondents can be found in the online appendix.

Questionnaire Design and Related Surveys: The two questionnaires for the adult and youth sample were developed by OPC members and can be found in the appendix. Several questions were taken verbatim from existing surveys to allow for comparison with other countries.

Related surveys include:

OECD (2023). Environmental Policies and Individual Behaviour Change (EPIC). https://www.oecd.org/en/publications/how-green-is-household-behaviour_2bbbb663-en.html

The OECD's EPIC surveys were conducted in 2008, 2011, and 2022. The latest round in 2022 was sent to more than 17,000 households across nine countries (Belgium, Canada, Israel, France, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States).

EIB (2024). EIB Climate Survey. https://www.eib.org/en/surveys/climate-survey/index.htm

The EIB Climate Survey has been conducted annually across Europe, China, the US, India and Japan from 2018 to 2024. In 2022, the EIB added 10 countries in Africa and the Middle East and in 2023 another 13 countries in Latin America.

The sixth edition of the EIB Climate Survey from 2023-24 focused on the public's knowledge of climate change.

UNICEF and Gallup (2023). A tumultuous world through children's eyes: The Changing Childhood Project – a multigenerational, international survey on climate change knowledge, information, trust and identity. https://changingchildhood.unicef.org/en/

For this survey, UNICEF included five questions in the 2022 Gallup World Poll across 55 countries.

UNESCO (2022). Youth demands for quality climate change education. https://unesdoc.unesco.org/ark:/48223/pf0000383615

The UNESCO report summarizes the findings of a global survey and focus group discussions in 2022 on young people's learning experiences and demands on quality climate change education, based on responses from about 17,500 young people across 16 countries (UNESCO 2022).

Visit website for more details
www.opc-luxembourg.lu

Online Appendix

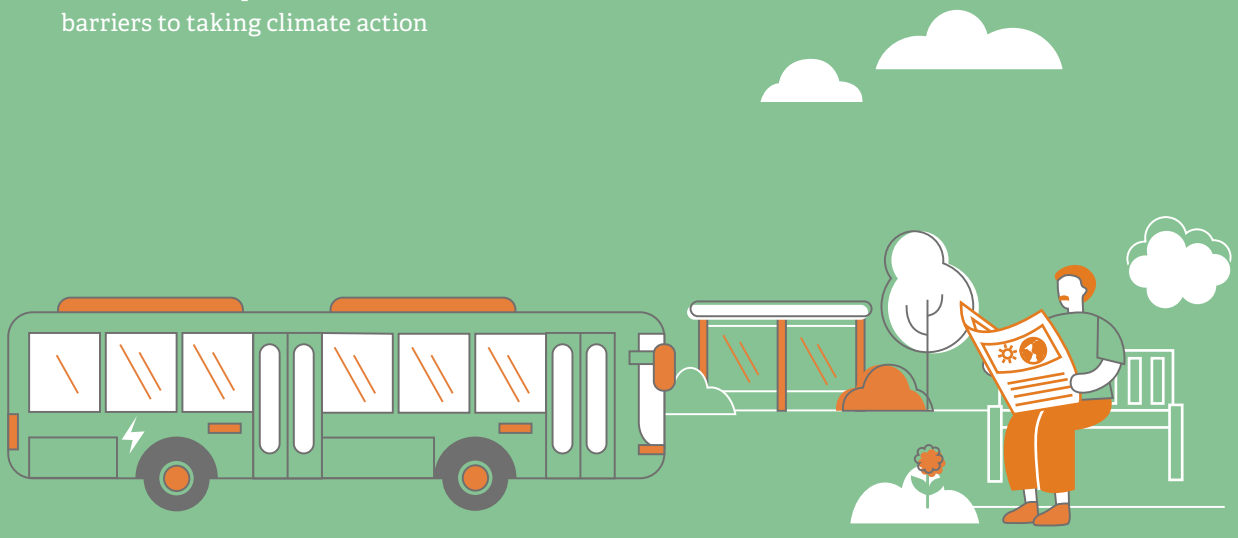
2. Climate Change Beliefs and Attitudes

Selection of key findings

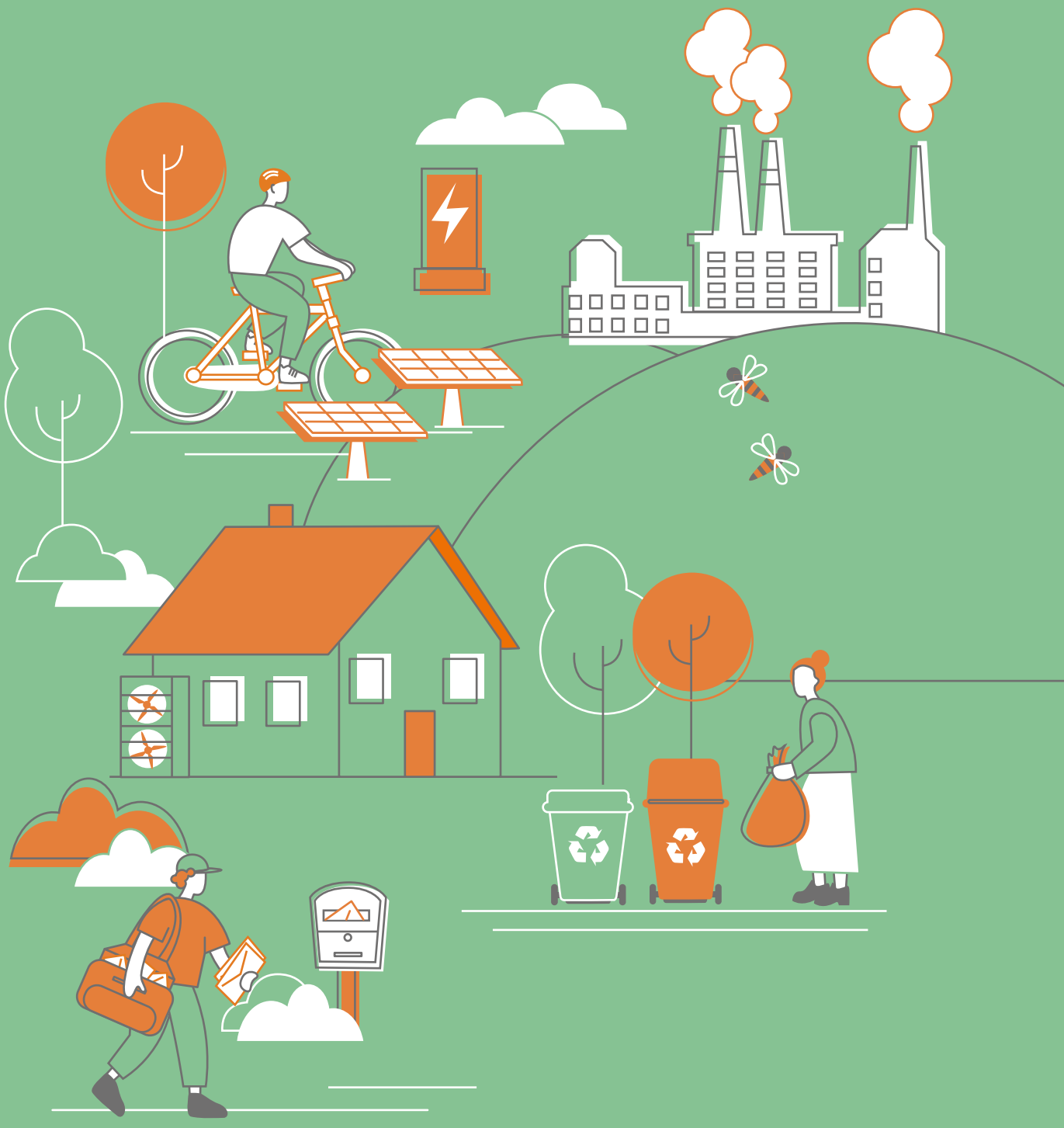
- 88% of adults and 78% of youth surveyed describe climate and environmental issues as either 'very important' or 'important'
- 77% of adult respondents completely agree or agree that climate change is scientifically proven and caused by human activity
- 83% of adults agree that slowing down climate change is urgent and 53% believe that taking environmental/climate action can boost the economy
- 65% of adults and 60% of youth believe that climate change will have a 'negative' or 'very negative' impact on younger generations
- 71% of adults say they are already taking climate action or intend to take climate action
- Financial constraints can be a barrier for individual climate action: 12% of respondents with an income level lower than 1,250 euro per month and 14% of those on an income level of 1,251-2,000 euro per month mention financial barriers to taking climate action

Key take-aways

- The Luxembourg public understands the importance and urgency of taking action on climate change, and is also already engaged or intend to engage in climate action in their everyday lives
- While respondents expect the worst impacts of climate change to fall on younger and future generations, respondents agree that dealing with climate change should not be left to future generations
- Respondents expect negative effects from climate change on health and other aspects of life, but few respondents expect negative impacts on their jobs
- Many respondents are willing to change their behavior and expect public policies to address climate change
- However, few respondents support policies that will cost them money

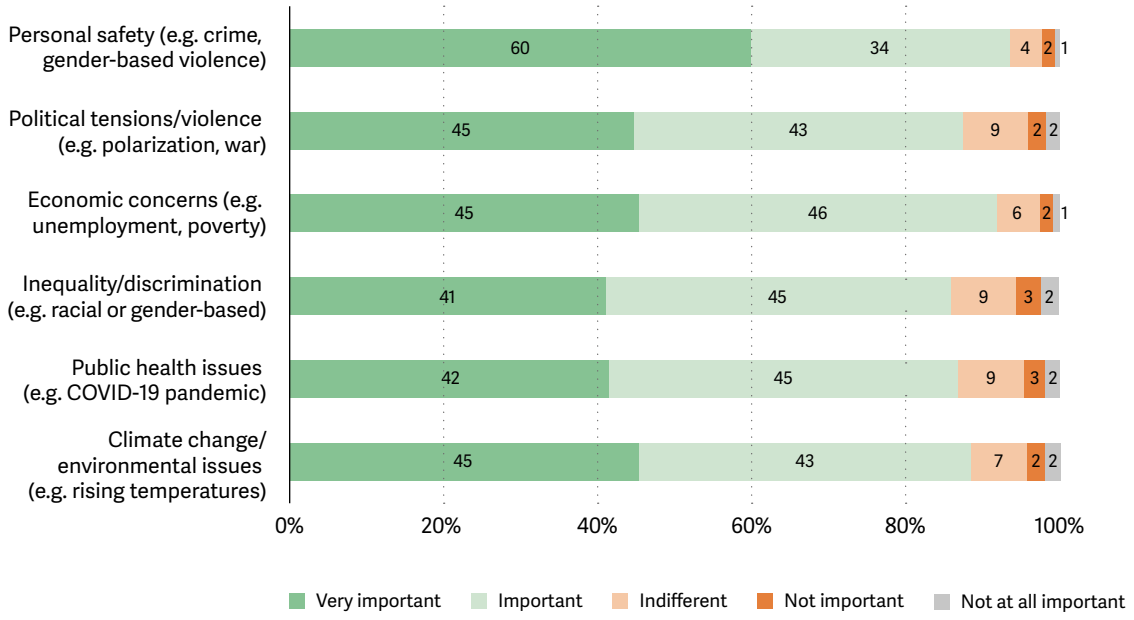


Chapters 2-4 focus on analysis of the adult (aged 22 and up) population, occasionally making reference to specific differences emerging from the youth (aged 15-21) survey. Chapter 5 focuses specifically on the youth survey. Thus, if not indicated otherwise, results presented in chapters 2-4 come from the adult survey.



2.1 Climate Change in Comparison to Other Issues

How important are each of the following issues to you personally?



When asked to rank pressing societal issues, adult respondents placed climate change among their top concerns. Nearly half (45%) rated it as "very important," with another 43% calling it "important" – meaning 88% of adults see climate and environmental issues as significant priorities, a finding that held across education levels. Only 2% dismissed these concerns as "not at all important," showing rare consensus on this growing challenge. The share of Luxembourg respondents identifying climate change as "very important" was higher at 45% than the OECD EPIC survey average of 35% (OECD 2023).

On average, females were more likely than males to identify climate change as a critical issue, with 49% of females ranking it as "very important", compared to 42% of males.

The survey revealed adults view climate change as an important or very important issue, while also rating other issues as important. This shows that the Luxembourg adult population is concerned about multiple issues at the same time.

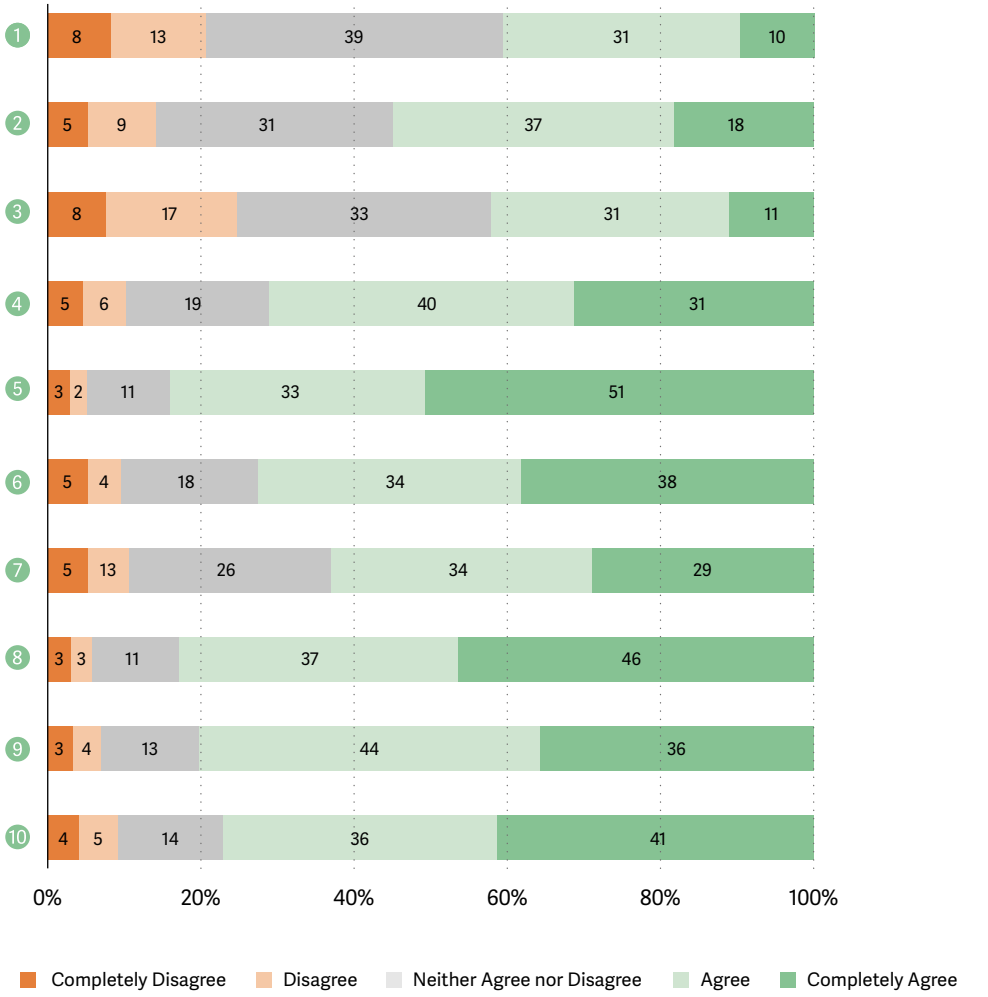
Climate change is regarded as equally important as both political tensions and as economic stability, with only personal safety being rated as more important (60% rate it as "Very Important").

When youth respondents (aged 15-21) were asked to assess the same societal challenges, their responses showed distinct priorities. While climate change was still rated as "Very Important" by 35% of youth, this was 10 percentage points lower than adults. Youth also showed higher neutrality, with 14% selecting "Indifferent" compared to 7% of adults. It's worth noting that the youth survey included an optional "Prefer not to say" category, which accounted for 2-3% of responses, a category not available for adults. This does not sufficiently account for differences between adult and youth responses, however.

Despite these differences, both groups shared a similar level of concern for personal safety as a universal priority across generations, with 57% of youth and 60% of adults marking it as "Very Important."

2.2 Perceptions, Beliefs and Attitudes

To what extent do you agree with the following statements about climate change?



1. Measures to slow down climate change will increase inequality between different households in Luxembourg.
2. Measures to slow down climate change will improve Luxembourgers' well-being.
3. Climate change can no longer be stopped.
4. Individuals should do more to slow down climate change.
5. Businesses and large corporations should do more to slow down climate change.
6. The European Union should do more to slow down climate change.
7. The Luxembourg government should do more to slow down climate change.
8. Slowing down climate change is urgent.
9. I am worried about climate change.
10. Recent climate change is scientifically proven and primarily caused by human activity.

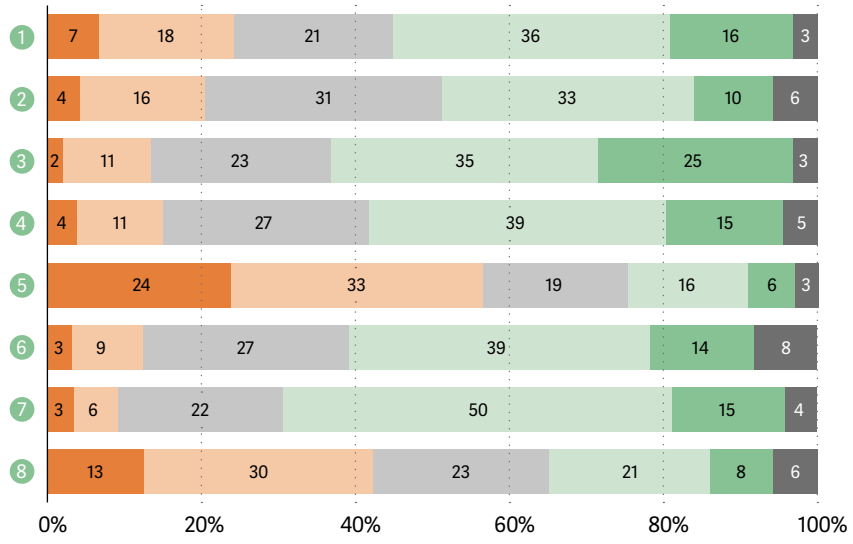
The survey results reveal strong consensus among respondents regarding the reality and urgency of climate change. A large majority (77%) agree ("completely agree" or "agree", and similarly below) that recent climate change is scientifically proven and primarily caused by human activity, with only 9% expressing disagreement. Similarly, 80% of respondents report being worried about climate change, while just 7% disagree ("completely disagree" or "disagree", and similarly below) with this sentiment. The urgency of addressing climate change is widely acknowledged, with 83% agreeing that slowing it down is urgent, compared to only 6% who disagree.

When examining responsibility for climate action, respondents show varying expectations across different entities. Businesses and large corporations face the strongest demand for increased action, with 84% agreeing they should do more. The European Union also receives significant pressure, as 72% believe it should intensify its efforts, slightly higher than the 63% who hold this view about the Luxembourg government. At the individual level, 71% agree people should do more.

Respondents agreed that environmental issues will be resolved mainly through public policies (54%), individuals voluntarily changing their behavior (52%), and technological progress (43%).

Opinions on the potential outcomes of climate measures present more divided perspectives. While 55% believe such measures will improve well-being in Luxembourg, 31% remain neutral and 14% disagree. Concerns about inequality resulting from climate policies are notable, with 41% agreeing these measures may increase inequality between households, though 39% are neutral and 21% disagree.

To what extent do you agree with the following statements?



1. Environmental issues will be resolved mainly through individuals voluntarily changing their behavior.
2. Environmental issues will be resolved mainly through technological progress.
3. Environmental policies introduced by the government should not cost me extra money.
4. Environmental issues should be resolved mainly through public policies.
5. Environmental issues should be dealt with primarily by future generations.
6. Protecting the environment can boost the economy.
7. I am willing to make changes in my current lifestyle for the benefit of the environment.
8. Environmental impacts are frequently overstated.

Strongly Disagree · Disagree · Neither Agree nor Disagree · Agree · Strongly Agree · Don't Know/Prefer not to Say

A majority (65% "strongly agreeing" or "agreeing") of the Luxembourg population showed a willingness to make personal changes to their current lifestyles for the benefit of the environment. At the same time, a majority (60%) of respondents in Luxembourg agreed that environmental policies introduced by the government should not impose additional personal expenses. Similar shares (65% and 63% respectively) were found on average across the nine countries forming part of the OECD EPIC survey in 2022. So while a majority of Luxembourg residents is willing to change their lifestyle, another majority does not want government policies for the environment to impose additional personal costs.

The data reveals mixed views regarding the perceived severity of environmental problems, with 43% of respondents disagreeing ("strongly disagreeing" or "disagreeing") that environmental impacts are frequently overstated, compared to 29% who agree with this statement. A significant proportion (23%) remain neutral on this issue. Regarding the economic dimension of environmental protection, most respondents (53%) believe it can boost the economy, with just 12% disagreeing.

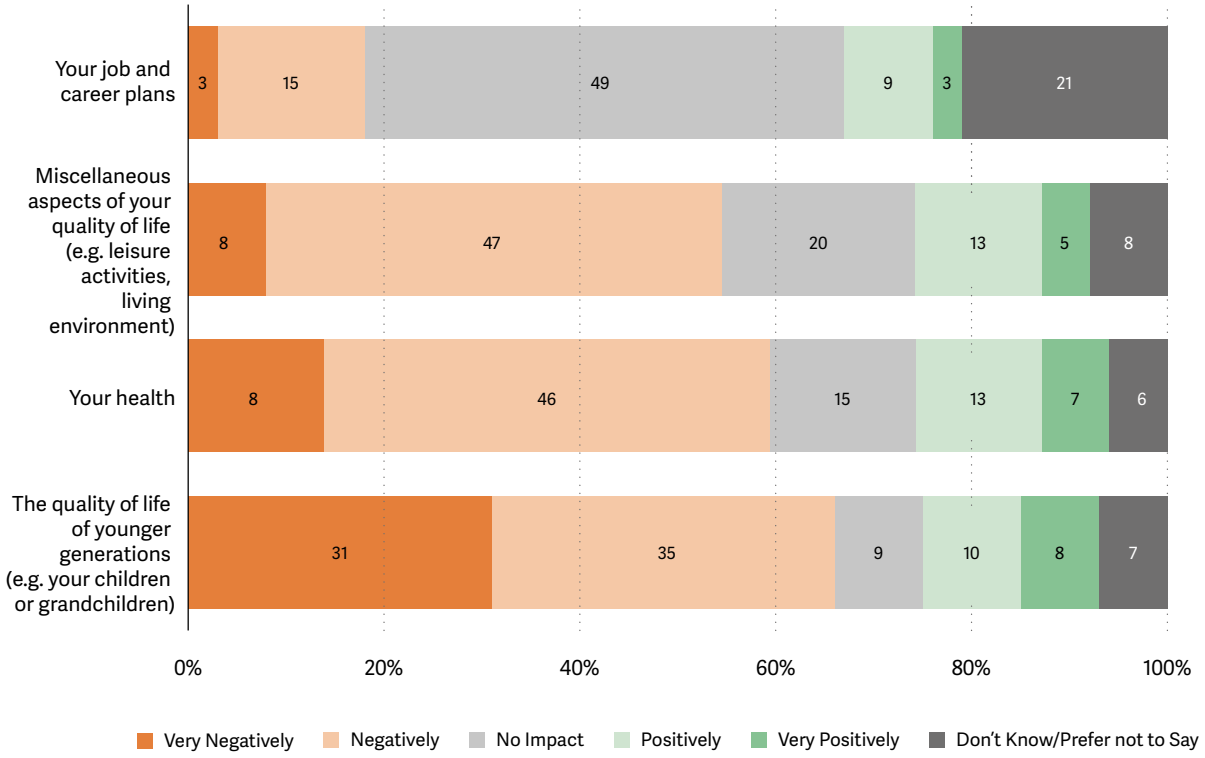
In terms of solutions, similar proportions favor policy solutions (54%) and individual behavior change (52%) as primary resolution methods, while 43% view technological progress as a key solution, though substantial minorities remain neutral on all three approaches (27%, 21%, and 31% respectively).

On the question of responsibility, the data shows clear rejection of postponing environmental action, as 57% disagree that future generations should primarily deal with these issues, versus only 22% who support this view. When it comes to personal action, a strong majority (65%) express willingness to make lifestyle changes for environmental benefit, while only 9% oppose this idea.

Overall, the responses in Luxembourg are very similar to the shares of agreement or disagreement across the nine countries that were part of the OECD EPIC Survey in 2022.

2.3 Risk Perception

How do you expect climate change (e.g. rising average temperatures, changes in extreme weather events) or other environmental issues to impact the following?



When asked about the impact of climate change on various aspects of life, respondents expressed mixed levels of concern. Overall, climate change is expected to impact job security and quality of life the least, while people's health and younger generations are viewed as the most vulnerable.

Regarding job security, 49% felt there would be "No Impact," while 15% believed it would negatively affect their job. Only 3% saw it as a very negative impact, and 21% were uncertain.

On health, 46% anticipated a "Negative" impact, and 14% thought it would be "Very Negative." However, 15% saw no impact, and 6% were unsure.

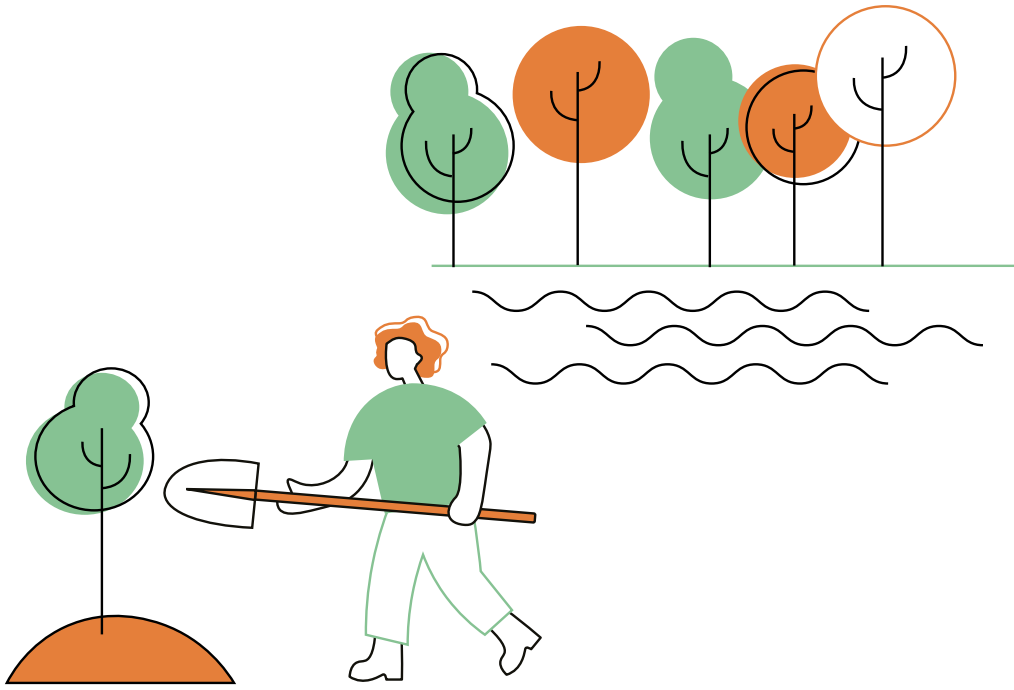
For miscellaneous aspects of life, such as leisure and living conditions, 46% expected a "Negative" impact, with 8% anticipating a "Very Negative" effect. 20% felt there would be no impact, and 13% saw a positive impact.

When considering the quality of life for younger generations, 30% believed climate change would have a "Very Negative" effect, and 35% thought it would be "Negative." However, 9% felt there would be no impact, while 10% saw potential positive effects, and 8% were uncertain.

The survey revealed differences in climate change perceptions based on education level. Among the adult population with master's or doctoral degrees, 65-70% anticipated negative or very negative health impacts from climate change and 72-77% expected negative or very negative consequences for younger generations. In contrast, respondents without post-secondary education expected lower negative or very negative impacts on health (51-56%) and younger generations (58-60%).

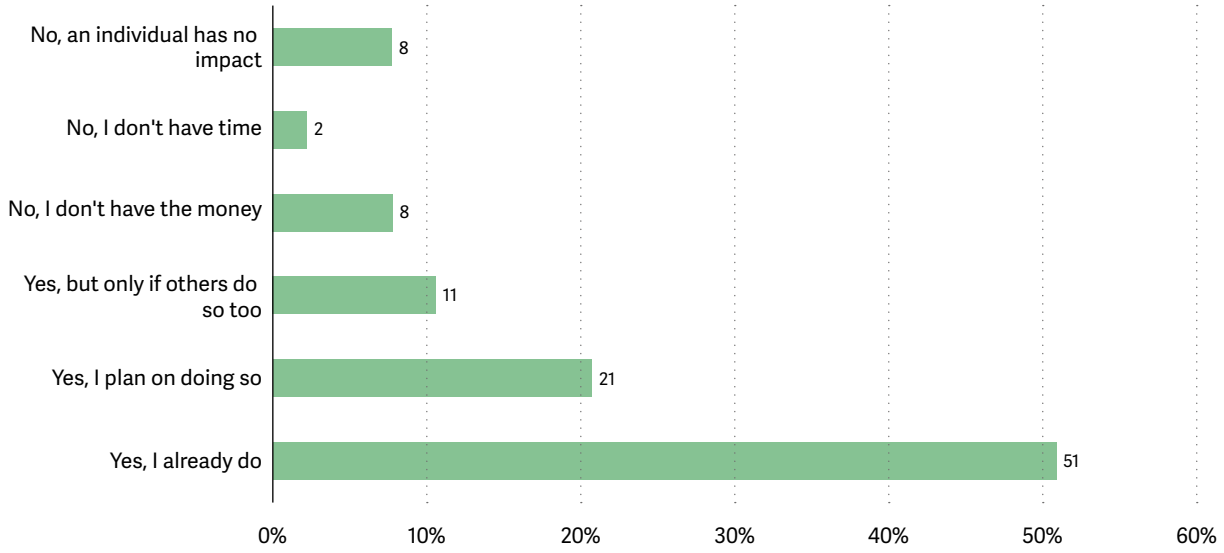
Youth (as determined by responses to the same question in the youth survey) are most worried about climate change's impacts on future generations (61% negative or very negative views) and health (52%), while being least concerned about jobs (only 22% negative).

Among the adult population, the data shows an inverse relationship between income level and perceived job security risks from climate change. Individuals earning under €2,000 per month report the highest levels of concern about climate change impacts on job security (15-23% negative or very negative impact). Reported concerns decrease with higher income levels, with middle-income respondents (€2,001-6,000) showing 22-23% concern, and higher income groups (€6,001-12,500) reporting 10-17% concern. The highest income bracket (€12,500+) shows the lowest level of concern at 6%. Those who prefer not to disclose their income report 15% concern.

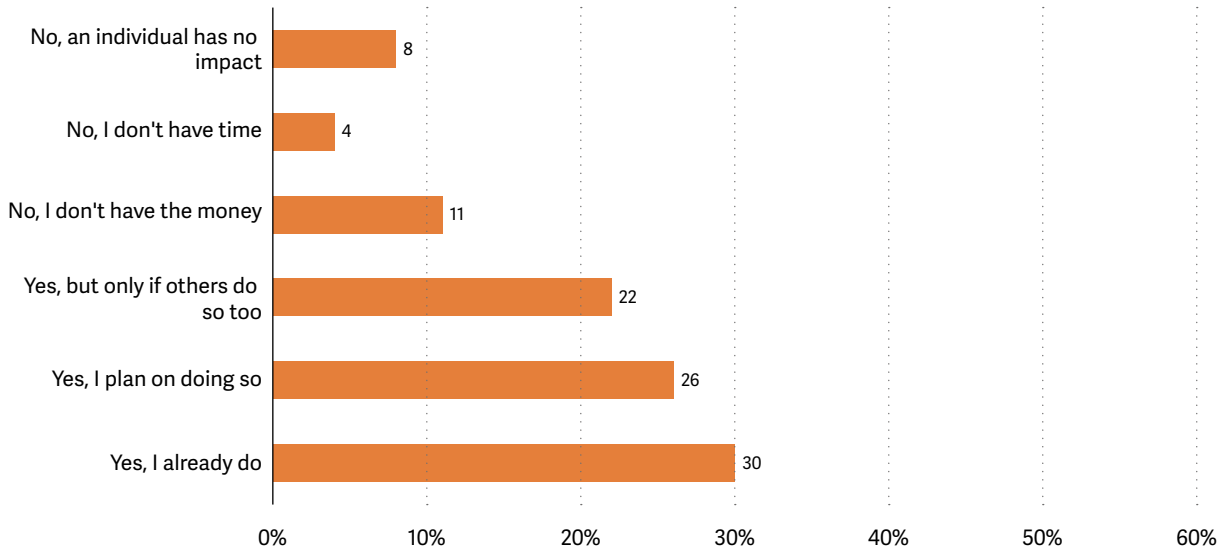


2.4 Willingness to Change Behavior

Would you adjust your lifestyle if it helped to tackle climate change?



Would you adjust your lifestyle if it helped to tackle climate change? (Youth)



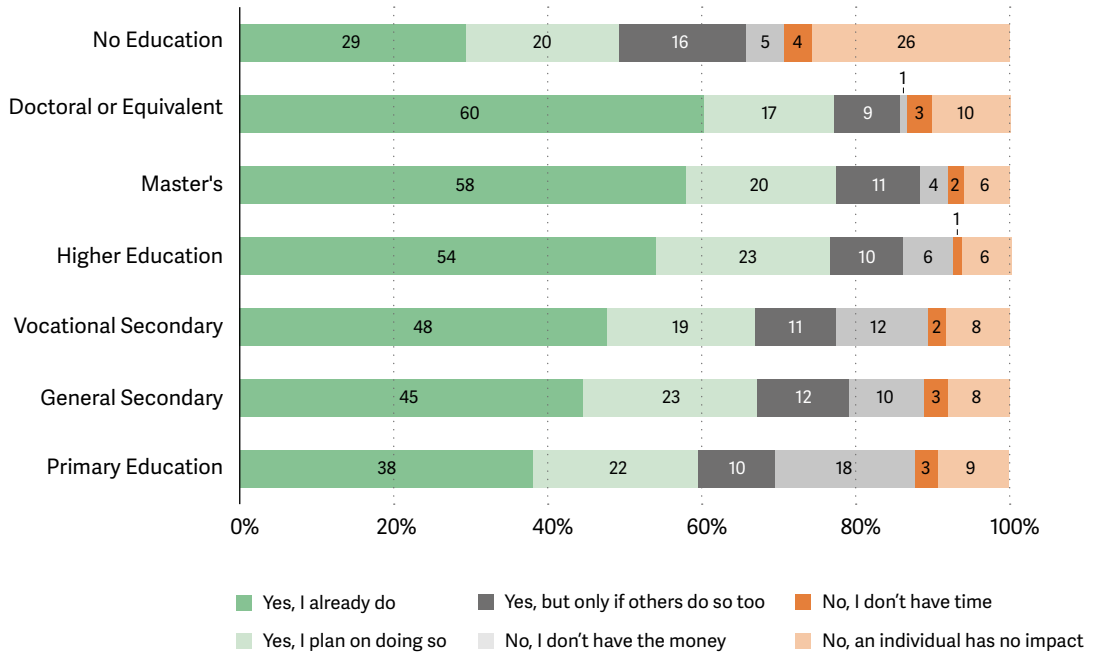
The survey reveals that most adults are already taking or planning to take steps to reduce their climate impact. A majority (51%) say they have already adjusted their lifestyles, while another 21% intend to do so. However, some remain hesitant – 11% would only act if others do too, and nearly 18% cite financial limitations (8%), lack of time (2%), or skepticism about individual impact (8%) as barriers.

Youth in turn (as determined by the same question in the youth survey), show slightly lower current engagement but stronger future intentions. Only 30% say they have already made lifestyle changes, but 26% plan to – suggesting growing awareness and willingness to act. A notable 22% would adjust habits only if others do, reflecting peer influence. Financial constraints affect fewer youths (11%) than adults, while time limitations (4%) and disbelief in individual impact (8%) remain minor but persistent concerns.

While adults demonstrate higher current adoption of climate-conscious behaviors, youth show greater openness to future change – though both groups face economic and motivational hurdles.

2.4.1 Education Level Shapes Climate Action Willingness

Would you adjust your lifestyle if it helped to tackle climate change?



The survey shows notable differences in climate-conscious behaviors across education levels. Adults with more education are significantly more likely to adopt climate-friendly habits. While 60% of PhD holders have already adjusted their lifestyles, this drops to just 29% among those without formal education.

Financial barriers show the steepest decline – affecting 18% of primary-educated respondents but less than 1% of doctoral graduates. A quarter of uneducated adults doubt individual impact, compared to just 6-10% among college graduates.

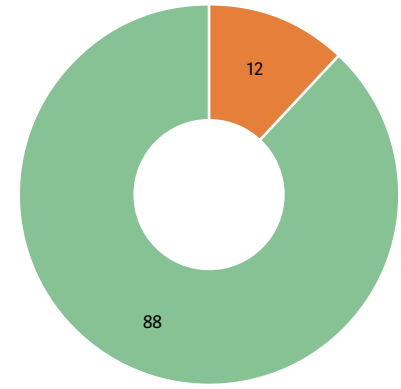
Future intentions reveal an inverse trend, with the least educated showing the strongest plans to change (20-22%) versus the most educated (17%), likely because many already act. The data suggests education enables action by reducing financial hurdles and building belief in personal efficacy.

The data reveals distinct patterns in climate-conscious behavior across income groups. Respondents with income in the €1,251-2,000 range report a current adoption rate of climate-friendly lifestyles at 45%, while this figure gradually increases with income, reaching 63% among the highest earners (€12,500+).

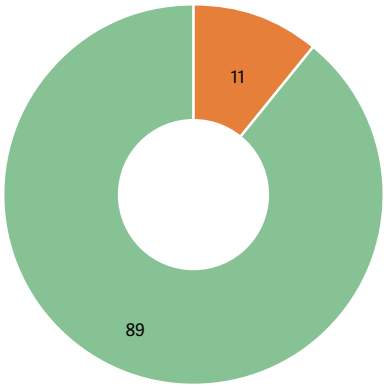
Financial constraints emerge as a significant barrier, particularly for lower-income groups (12% for under €1,250; 14% for €1,251-2,000), though this concern diminishes sharply among higher incomes (1-5% above €6,000). The belief that individual actions have no impact remains relatively consistent across most income levels (6-9%), except for a notable 12% in the €1,251-2,000 bracket. Conditional willingness to act ("only if others do too") shows moderate variation (9-13%), with slightly lower rates in the lowest income group (4-9%).

2.4.2 Neighbor's Action

Respondents' willingness to invest in climate-related home improvements, even when their neighbors are not taking action.



Respondents' willingness to make climate-related home improvements when their neighbors have already taken action.

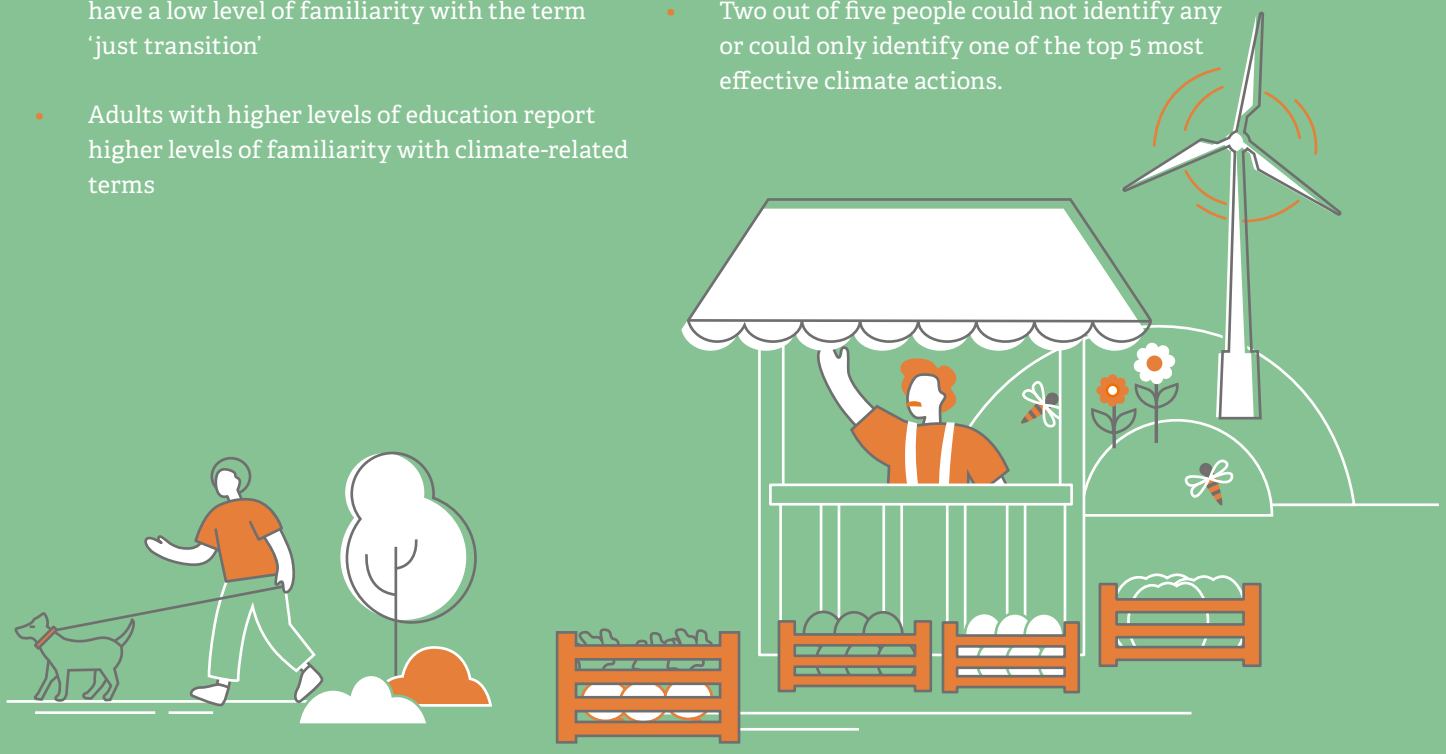


The data reveals consistent climate action intentions regardless of neighborhood context, with nearly identical response patterns across both scenarios. When neighbors actively implement climate measures, 89% of respondents would invest in home improvements, compared to 88% who would do so despite neighbors' inaction. The proportion opting to maintain current habits shows essentially no variation between scenarios (11% vs 12%).

3. Climate Literacy

Selection of key findings

- 55% of adult respondents report hearing or reading about climate change at least weekly, and 62% of adults receive their information on climate change via traditional media (newspapers, television, etc.)
- The adult population is familiar with basic terms and concepts around climate change – such as greenhouse gas emissions, climate change adaptation and mitigation
- The general adult public is substantially less familiar with more specific technical aspects of climate change or climate policy, such as carbon sinks
- There is also a sizeable lack of familiarity with the term 'just transition', with 39% of adults not at all familiar with this term
- Adults generally show higher familiarity with terms than youth, but both youth and adults have a low level of familiarity with the term 'just transition'
- Adults with higher levels of education report higher levels of familiarity with climate-related terms
- Respondents who get their information directly from scientists are more familiar with terms than those who get their news from traditional media (newspapers, TV, etc), who in turn are more familiar than those who get their information from social media.
- Adult respondents correctly identify switching from private to public transport, insulating one's home, and installing solar panels as highly effective in reducing CO_2 emissions
- Adult respondents overestimate the impact of recycling and buying local food for their impact on reducing emissions.
- Adult respondents underestimate the impact of switching to an electric car (given Luxembourg's electricity mix), switching to a vegetarian diet, or installing a heat pump for heating and cooling
- Two out of five people could not identify any or could only identify one of the top 5 most effective climate actions.



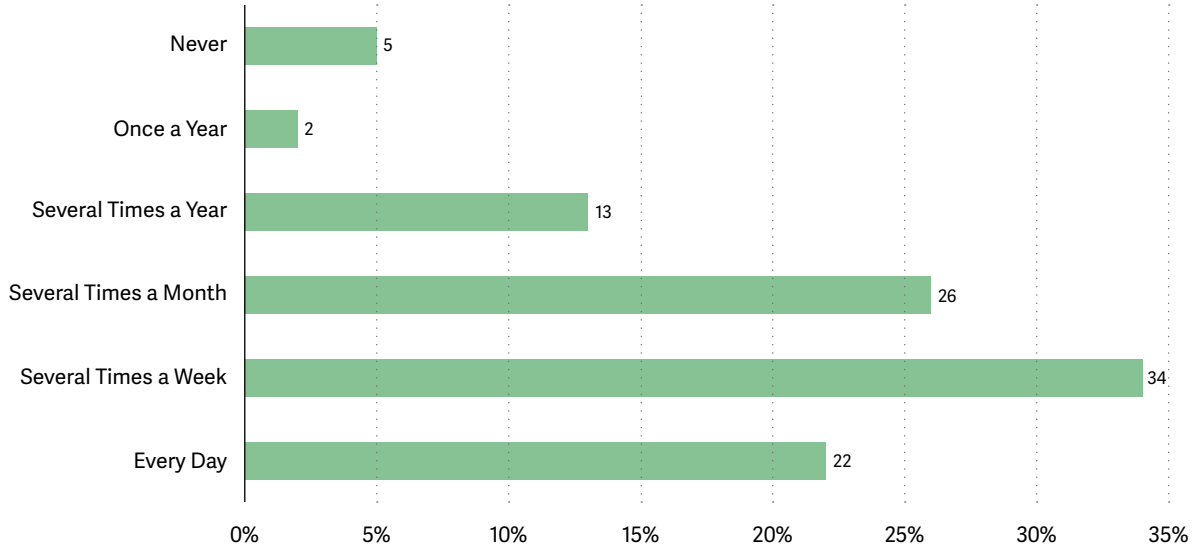
Key take-aways

- There is a limited familiarity among the general adult population with technical and policy-related climate terms, such as 'just transition'
- Familiarity with terms improves with education level, implying a need for continued or expanded educational support
- There is a disconnect between Luxembourger's concern about climate change, willingness to act and to support climate policies and ability to identify the most effective climate solutions. This implies that there is a need to improve understanding and knowledge on climate action among the public, especially on climate solutions and policies
- The consistent findings about the misperception about the effectiveness of various actions highlight the need to provide people with better information about effective actions, to target financial support and incentives towards the most effective actions alongside accurate information
- Given the important role of teachers in shaping climate change perceptions in schools (see results of youth survey), providing support, training, information, and materials to teachers may be a particularly effective way to address low climate literacy among youth

3.1 Information Sources

3.1.1 Public Engagement with Climate Change Information

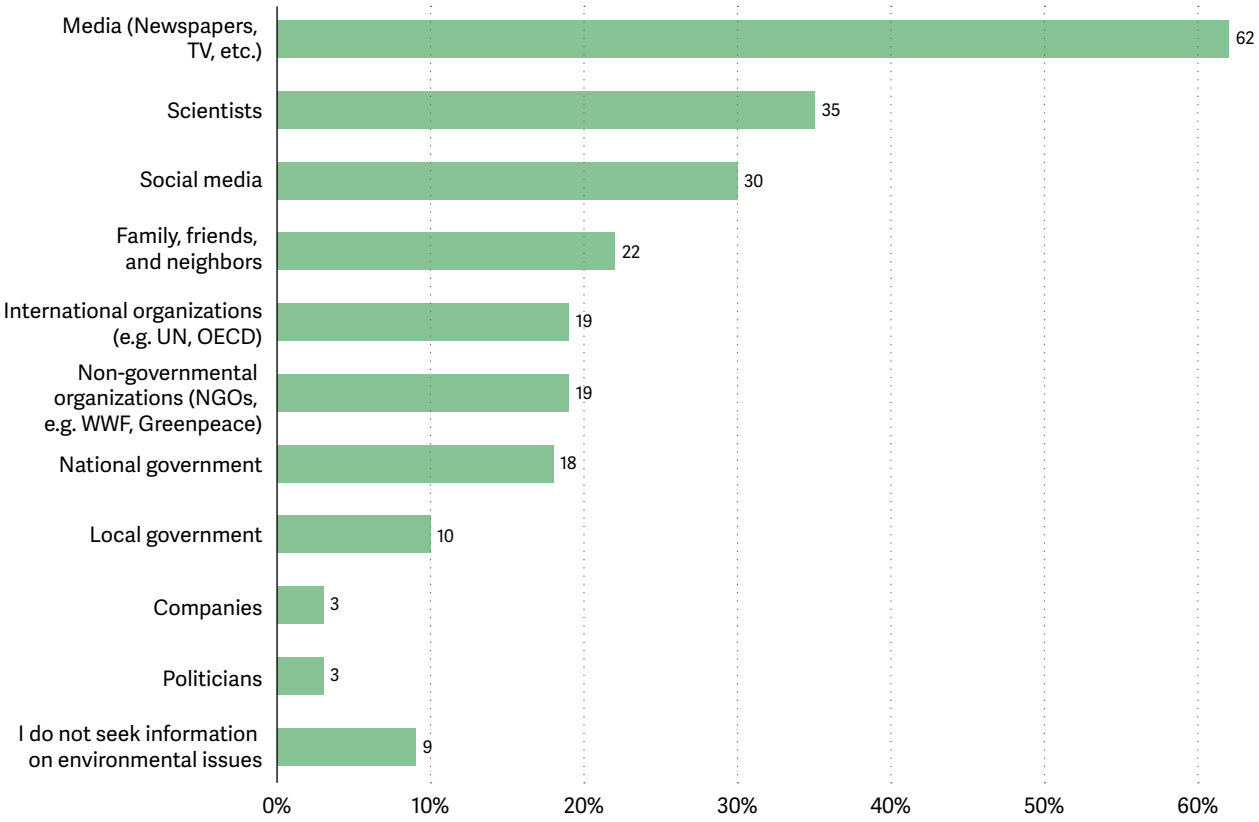
How often do you read or hear about climate change via your preferred news source?



The survey reveals frequent public exposure to climate change discussions, with most respondents regularly encountering the topic. A solid majority (55%) report hearing or reading about climate change at least weekly - including 21% daily and 34% several times weekly. Another 26% engage with the subject several times monthly, suggesting nearly 81% of the population encounters climate information at least monthly.

Attention drops significantly at longer intervals, with just 13% encountering climate discussions several times yearly and 2% annually. A small but notable 5% claim never to come across climate change information.

Most preferred information sources when it comes to environmental issues [Choose up to 3]



3.1.2 Public Preference for Climate Information Sources

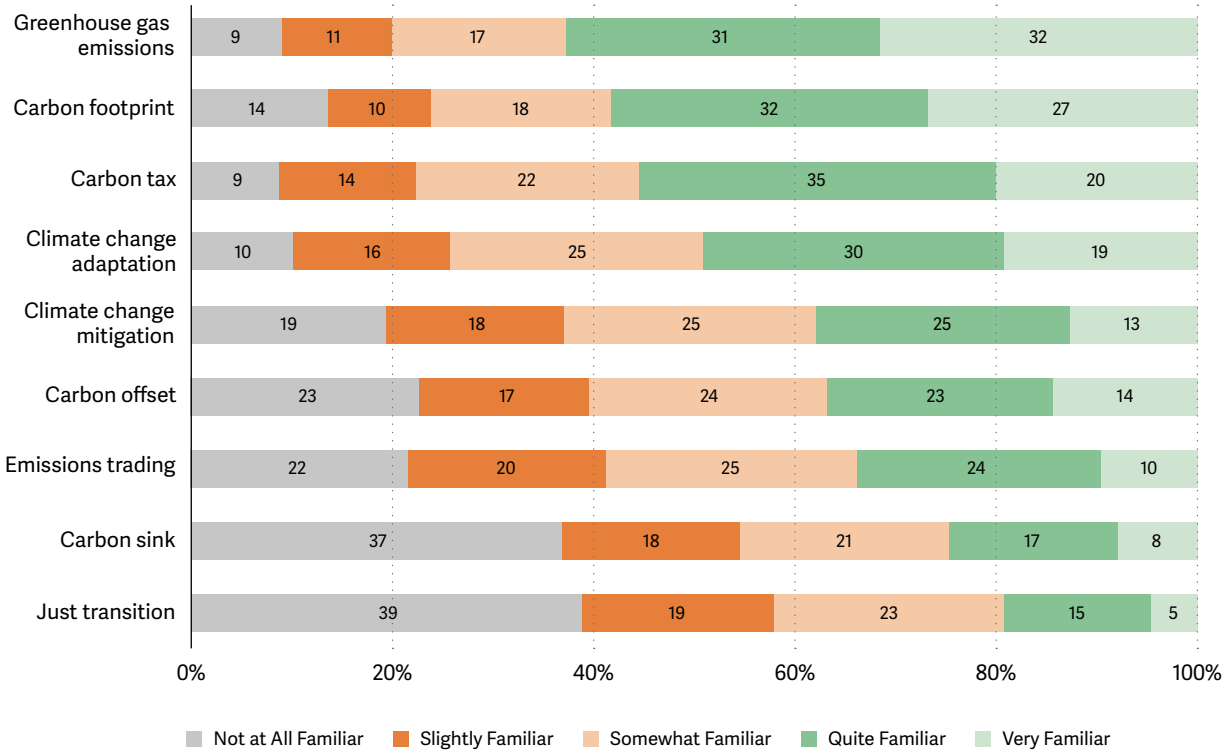
The survey reveals media outlets dominate as the primary channel for climate change information, with 62% of respondents selecting newspapers, TV, and other traditional media among their top three sources. Scientists emerge as the second most preferred authority (35%), significantly outpacing governmental and institutional sources.

International organizations (19%) and NGOs (19%) attract similar levels of public attention, while government sources show a notable disparity – national governments (18%) are nearly twice as consulted as local authorities (10%). Social media maintains substantial influence (30%), ranking third overall, while personal networks (22%) also play a meaningful role in information dissemination.

Political and corporate sources garner minimal preference, with only 3% turning to politicians and 3% to companies for climate information. The findings highlight a 9% disengagement rate, with nearly one in ten respondents not actively seeking environmental information.

3.2 Familiarity with Climate Terms

How familiar are you with the following term?



Climate-related terms show varying levels of recognition among respondents, with some concepts proving far more recognizable than others. "Greenhouse gas emissions" and "carbon footprint" emerge as the most widely understood, with over 60% of respondents reporting they are quite or very familiar with these terms. In contrast, specialized concepts like "just transition" and "carbon sink" show significantly lower recognition, with nearly 40% of participants completely unfamiliar with them.

Policy-focused terms present a mixed picture. While "carbon tax" enjoys relatively strong awareness (56% quite or very familiar), "emissions trading" shows more moderate recognition (34% at these levels). The distinction between "climate change adaptation" (49% quite/very familiar) and "mitigation" (38%) suggests greater public understanding of response strategies than prevention approaches.

Technical terms generally lag in familiarity. "Carbon offset" demonstrates polarized understanding, with 23% completely unfamiliar yet 14% very familiar.

3.2.1 Generational Differences in Climate Terminology Familiarity

A comparative analysis reveals both surprising similarities and notable gaps in climate-related vocabulary between youth (aged 15-21) and adults (aged 22 and up). While some fundamental concepts show comparable recognition, youth consistently demonstrate lower familiarity with policy-focused terminology.

When comparing youth and adults based on combined quite familiar and very familiar responses, adults generally show higher familiarity with climate-related terms than youth. For instance, carbon tax is well understood by 55% of adults compared to 43% of youth, while greenhouse gas emissions is recognized by 63% of adults versus 61% of youth – a smaller gap. The biggest differences appear in emissions trading (34% adults vs. 18% youth) and carbon offset (37% adults vs. 28% youth), suggesting adults may have more exposure to policy and market-based climate solutions. However, youth slightly outperform adults on carbon footprint (61% vs. 58%).

Both groups struggle equally with terms like carbon sink (21% youth, 25% adults) and just transition (10% youth, 19% adults), indicating these concepts remain niche across age groups. Adults lead in climate change mitigation (34% vs 38%) and adaptation (49% vs. 52%), though the margins are narrow.

3.2.2 Climate Term Familiarity Across Education Levels

The data reveals a positive relationship between educational attainment and familiarity with climate-related terminology. Higher education levels consistently correlate with greater recognition of both basic and technical climate concepts.

Fundamental terms like “greenhouse gas emissions” and “carbon footprint” achieve near-universal recognition among the highly educated, with doctoral holders showing 53% and 45% “very familiar” rates respectively. Those with primary education demonstrate substantially lower awareness, with only 14% and 9% being “very familiar” with these concepts.

Specialized policy concepts show large difference in those who are very familiar education-based disparities: respondents with a doctoral degree are 10-25 percentage points more likely to be “very familiar” than those with primary education for “carbon tax” (36% vs 11%), “emissions trading” (27% vs 4%), and “just transition” (16% vs 5%).

While “carbon sink” maintains relatively low recognition across all groups (19-32% combined “quite/very familiar”), climate change adaptation demonstrates strong education-linked growth, from 34% (primary) to 71% (doctoral) in upper familiarity tiers.

The education divide is most pronounced for:

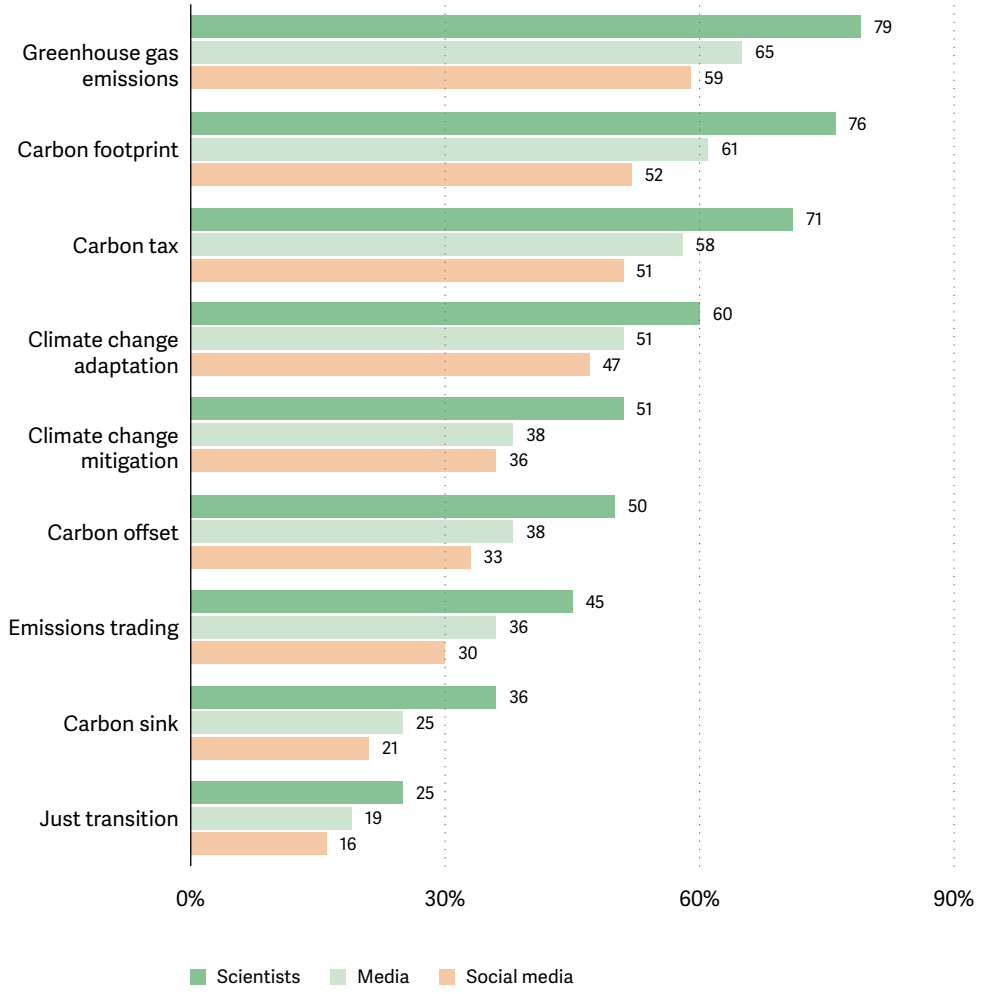
1. Carbon offset: 32% of doctoral holders are “very familiar” versus just 7% of primary-educated
2. Climate change mitigation: Shows a 24-percentage point gap in the “very familiar” category between highest and lowest education levels
3. Emissions trading: Doctoral holders report 60% combined “quite/very familiar” versus 20% for primary education

Notable Exceptions

The term “carbon sink” shows unexpectedly low recognition even among the highly educated, suggesting it may be less emphasized in academic or media discourse compared to other climate concepts.

3.2.3 Climate Term Familiarity by Preferred News Source

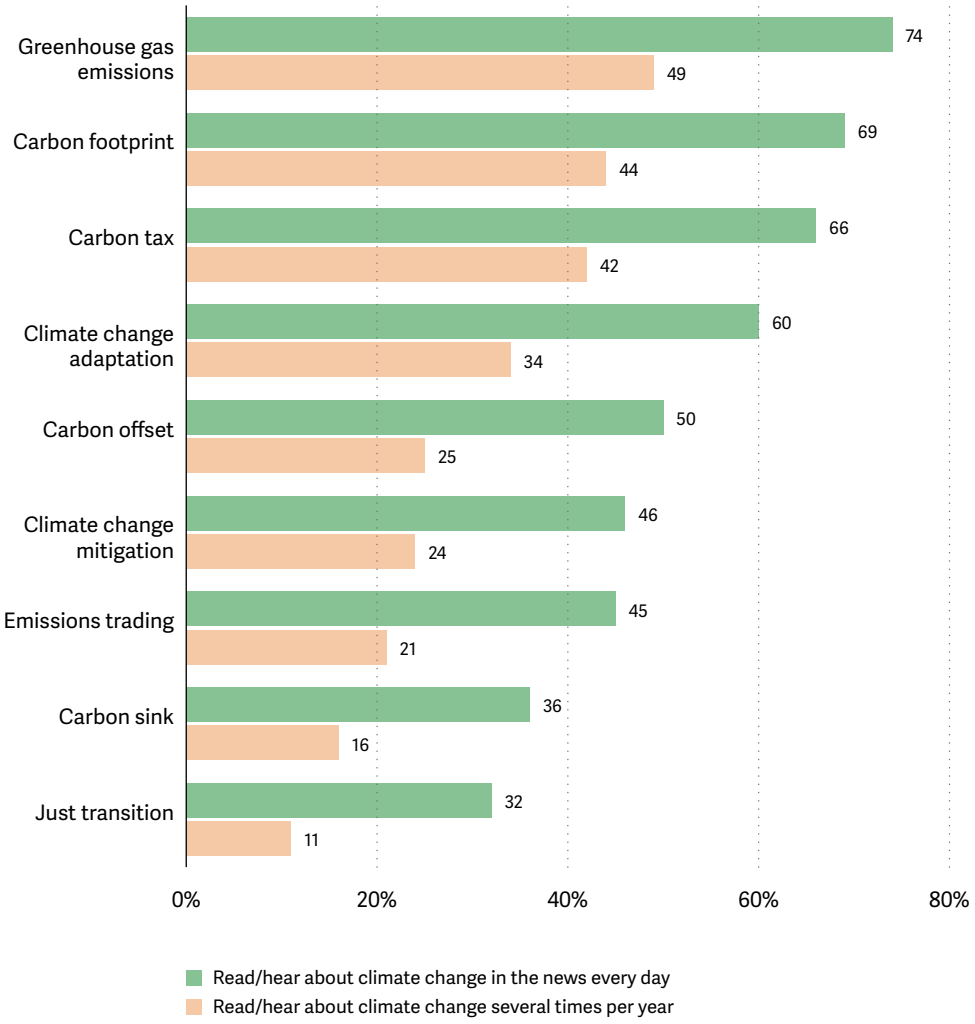
"Very familiar" or "quite familiar" with climate concepts by preferred news source



Consistently across all climate concepts tested in the survey, respondents who chose "Scientists" as one of their three preferred news sources when it comes to climate change had a greater level of familiarity ("very familiar" or "familiar") with the climate concepts than those who selected "Media" or "Social media" as a preferred news source. The term "just transition" remained the least familiar term, with only 25% of respondents who prefer scientists as a news source indicating that they were either "very familiar" or "familiar" with the term.

3.2.4 Climate term familiarity by how often read or hear about climate change in the news

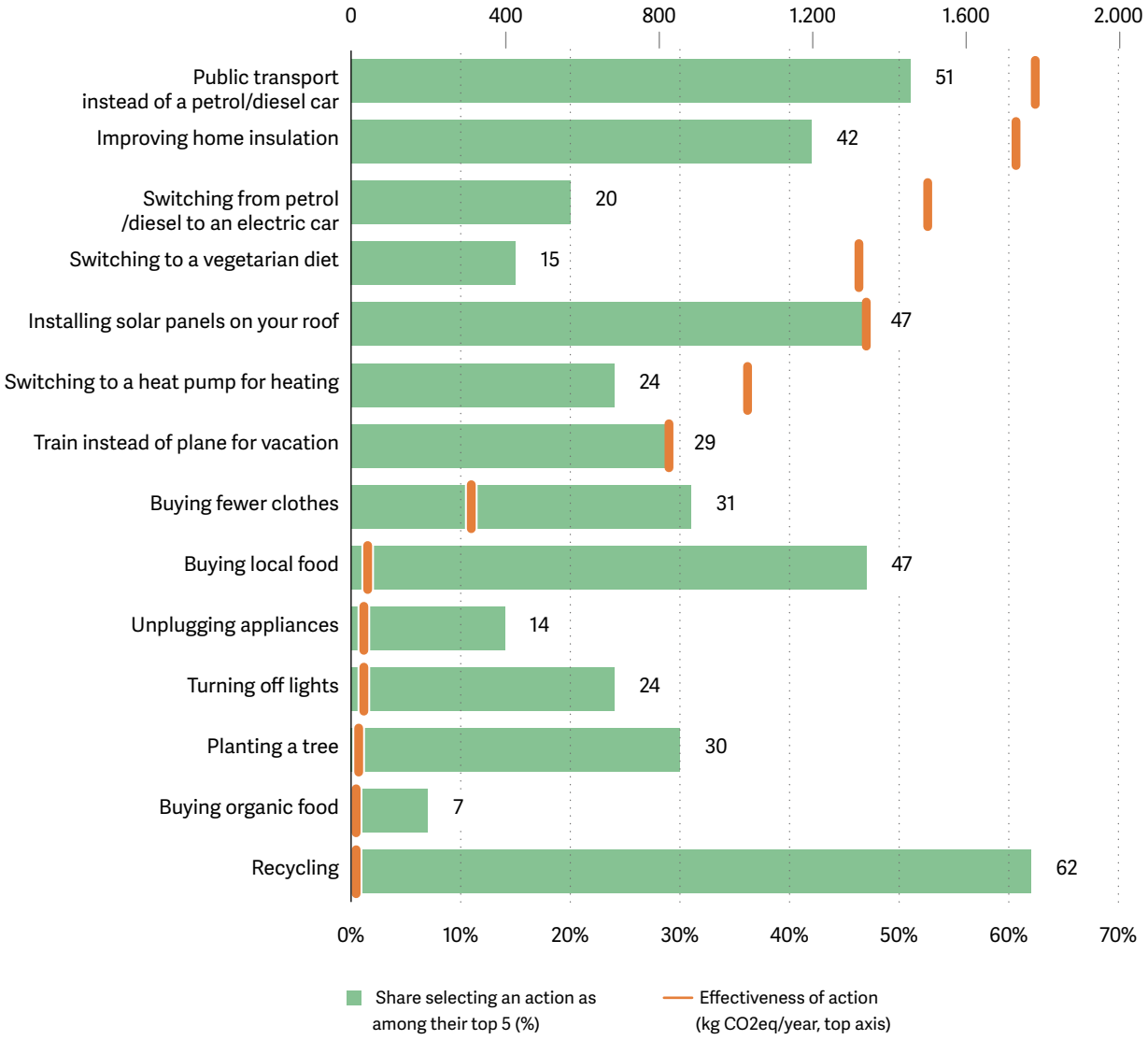
"Very familiar" or "quite familiar" with climate concepts by preferred news source



Respondents who indicated reading or hearing about climate change in their most preferred news source every day were 1.5 to 3 times more likely to report being "very familiar" or "quite familiar" with the climate change terms tested in the survey than those who read or hear about climate change "several times per year". This indicates that reading or hearing about climate change frequently is important for increasing understanding of climate change concepts.

3.3 Knowledge of the Efficacy of Different Individual Climate Actions

How much would each of the following actions reduce someone's impact on climate change?



The survey reveals clear patterns in how people perceive the effectiveness of various climate-friendly behaviors. Recycling stands out as the action most widely recognized as "effective", with 62% of respondents identifying it as one of the most impactful measures to reduce one's climate footprint even though its climate mitigation potential is very limited and close to zero kg CO2 per person per year. Recyling came second-to-last in terms of GHG emissions savings among 60 actions studied (Ivanova et al. 2020).[1]

The estimation of the effectiveness (in kg CO2eq per person per year) of the climate actions queried in this survey come from research at the Luxembourg Institute of Science and Technology (Hitaj et al. 2022).[2]

Transportation choices emerge as another key area of public awareness. Shifting from private cars to public transport was selected by 51% of respondents as highly effective, making it the second most popular choice after recycling. Other mobility options received somewhat lower but still significant recognition – 29% viewed taking trains instead of planes for vacations as impactful, while 20% considered switching to electric vehicles effective. These results suggest that while people understand the climate benefits of sustainable transport, perceptions vary depending on the specific alternative.

Energy-related home improvements also ranked prominently among perceived effective actions. Installing solar panels (47%) and improving home insulation (42%) were both widely recognized as meaningful climate actions, indicating substantial public awareness of household energy efficiency measures. The relatively lower rating for heat pump adoption (24%) may reflect less familiarity with this newer technology compared to more established solutions like solar power.

Food consumption habits showed more mixed perceptions. Buying local food was seen as impactful by 47% of respondents, while dietary changes received notably lower recognition – only 15% selected switching to a vegetarian diet and just 7% chose buying organic food as top climate actions.

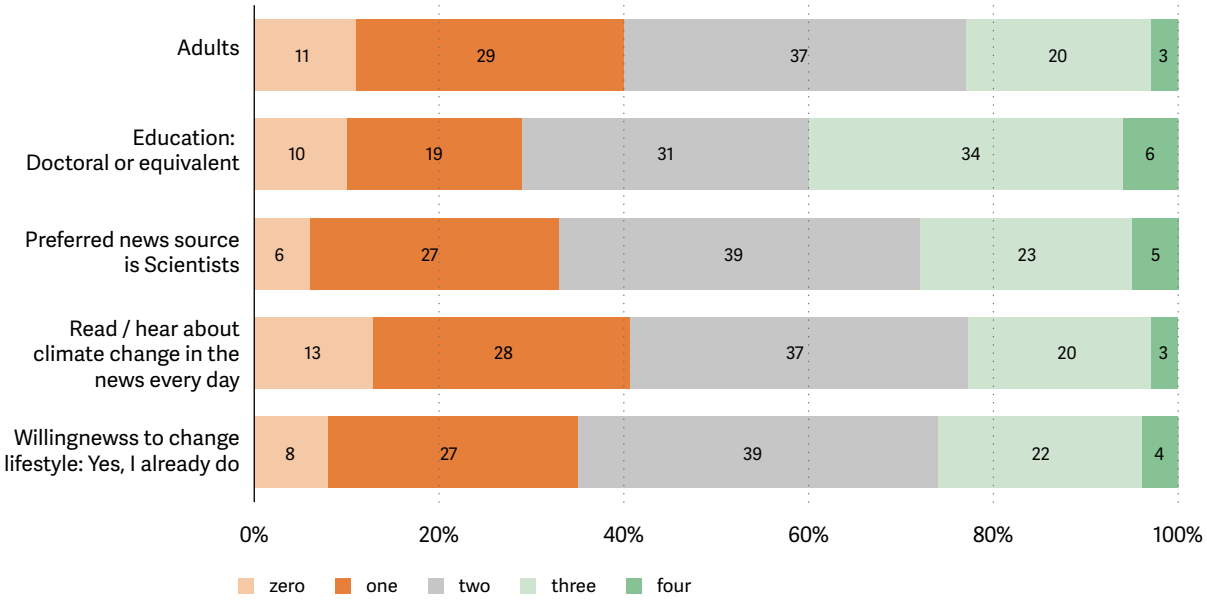
Everyday energy-saving behaviors received moderate recognition, with turning off lights (24%) ranking higher than unplugging appliances (14%). Moreover, consumption reduction strategies like buying fewer clothes (31%) were viewed as more effective than these small energy conservation measures. These findings reveal both alignment and disconnects between public perceptions and climate science. While some high-impact actions like home insulation and sustainable transport are widely recognized, other significant measures – particularly dietary changes and newer technologies like heat pumps – appear underappreciated.

Underestimated efficacy actions include switching to a vegetarian diet (deemed effective by 15% of respondents despite annual emissions savings of 1320 kg CO2eq/person), switching from petrol/diesel to an electric car (20%, 1500 kg CO2eq/person), and installing heat pumps for heating and cooling (24%, 1030 kg CO2eq/person). These actions, although highly effective in reducing carbon emissions (above 1t CO2eq per person per year), have relatively lower support compared to other actions. On the other hand, overestimated efficacy actions include recycling (62%, close to 0 kg CO2eq/person), buying local food (47%, 40 kg CO2eq/person), planting a tree (30%, 10 kg CO2eq/person), and turning off lights (24%, 30 kg CO2eq/person). These actions are often perceived as more impactful than they actually are in terms of climate mitigation, though they come with other environmental benefits.

1 Ivanova, D., Barrett, J., Wiedenhofer, D., Macura, B., Callaghan, M. and Creutzig, F. (2020). Quantifying the potential for climate change mitigation of consumption options. Environmental Research Letters, 15(9), p.093001.

2 Hitaj, C., Igos E., Gibon, T. (2022). Towards decarbonisation: Understanding and reducing our carbon footprint in Luxembourg. Luxembourg Institute of Science and Technology. https://carbonnerd.list.lu/

Number of climate actions correctly identified as effective (among top 5), for different groups



Compared to the effectiveness of climate actions as identified in the literature (Hitaj et al. 2022, Ivanova et al. 2020), about 29% of the population were only able to identify 1 out of the top 5 correctly and another 11% were unable to identify any of the top 5 actions. These results generally held across different sectors of the population. People who read or hear about climate change in the news every day did not fare better at identifying effective climate actions than the population as a whole.

Highly educated people with a doctoral or equivalent were able to correctly identify more of the top 5 climate actions. The same holds true for people who list "scientists" as their preferred news source when it comes to climate change.

People who indicated a high willingness to change their lifestyle ("Yes, I already do") were able to correctly identify more climate actions as effective than the population as a whole.

3.3.1 Gender Differences in Climate Action Perception

The data reveals notable gender-based variations in how people perceive the effectiveness of different climate actions. While some high-impact solutions remain underestimated across genders, others – particularly more visible or habitual behaviors – show significant overestimation, especially among women.

Heat pump adoption is perceived as more effective by men (28%) than women (20%), suggesting that men may be more attuned to energy technology solutions. Women perceive buying local food as more impactful than men (46% vs 39%) and similarly for buying fewer clothes (36% vs 26%).

3.4 Overarching Reflections

The adult population is familiar with basic terms and concepts around climate change – such as greenhouse gas emissions, climate change adaptation and mitigation – but are substantially less familiar with more specific technical aspects or policy proposals, such as carbon sinks or a just transition. Maybe surprisingly, more respondents are familiar with carbon taxes than with emissions trading, despite the EU having an emissions trading system.

In terms of demographics, large differences exist across education levels, with holders of PhD degrees being around 10-25 percentage points more likely to be very familiar with most concepts than holders of primary school degrees. Smaller differences exist between youth and adult respondents, with larger differences for concepts around the policy of climate change, such as emissions trading and a just transition.

Interesting differences exist based on news sources. Respondents who get their information directly from scientists are more familiar with terms than those who get their news from traditional media (newspapers, TV, etc) who in turn are more familiar than those who get their information from social media.

In terms of climate efficacy, respondents correctly identify switching from private to public transport, insulating one's home, and installing solar panels as highly effective in reducing CO2 emissions, but dramatically overestimate the impact of recycling and buying local food, while underestimating the impact of switching to an electric car (given Luxembourg's electricity mix), switching to a vegetarian diet, or installing a heat pump for heating and cooling.

Higher education leads to somewhat more accurate perceptions of effectiveness, but the same pattern of over- and underestimation persists even at the level of Phd holders. Age and gender don't meaningfully affect the perceived effectiveness. Two out of five people were only able to identify zero or one of the top 5 most effective climate actions.

Many of the actions whose effectiveness are overestimated are small and either free or cheap, such as switching lights off, recycling, or buying local food. While this will require further research, this may explain partially why so many people state that they are willing to change their lifestyle, yet not willing to support costly policies: they may believe that free or low-cost solutions may be enough to tackle climate change.

These findings mirror the findings of the 2023-2024 EIB Climate Survey on people's knowledge of climate change in three key areas: definitions and causes, consequences, and solutions. Participants answered 12 questions and were ranked on a scale of 0 to 10, with 10 indicating the highest level of knowledge (EIB 2024). People in Luxembourg ranked second in the EU27 (after Finland) with an overall score of 7.19/10. Luxembourgers had a better knowledge of the definition and causes of climate change (score of 8.27) and of consequences of climate change (score of 8.15) than of solutions to combat climate change (score of 5.16). The same pattern of a much lower knowledge on the solution dimension was found for the EU27 as a whole. Similar to the EIB Climate Survey, this report finds that knowledge of the effectiveness of climate actions was quite low across all population groups, even the most educated, i.e. those with PhD degrees or those who read or hear about climate change every day.

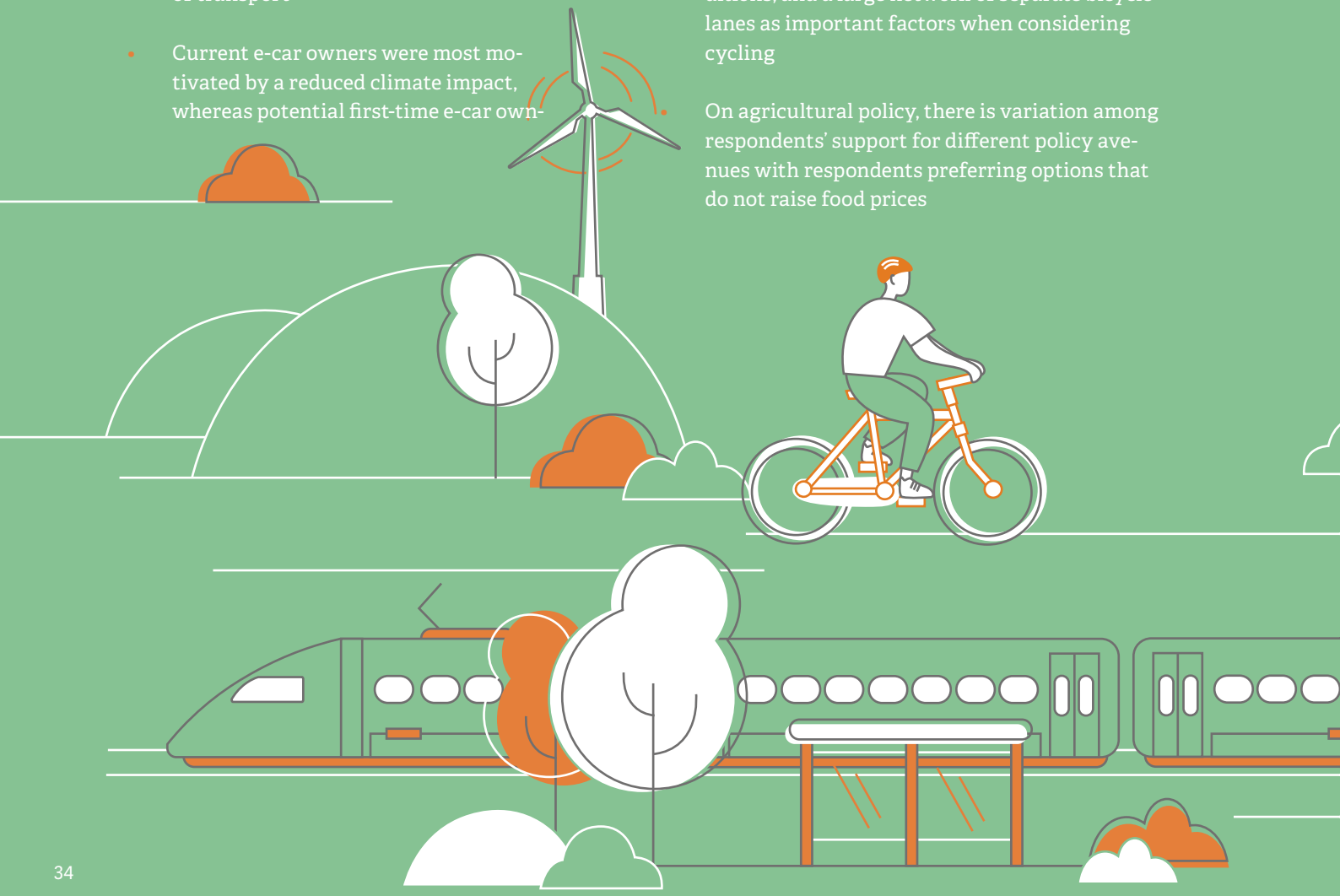
The consistent findings about the misperception about the effectiveness of various actions highlight the need to provide people with better information about effective actions, to target financial support and incentives towards the most effective actions alongside accurate information, and to study further the potential of information campaigns to guide people towards more effective actions, although this potential should not be overestimated, given the limited success of such information campaigns targeting climate change behaviors (Pace et al. 2025). [3] Given the heterogeneity of news sources that different respondents consume, a fruitful avenue may be to target different news mediums, as people may trust information more when it reaches them through their preferred medium.

3 Pace, D.D., Imai, T., Schwardmann, P. and van der Weele, J.J. (2025). Uncertainty about carbon impact and the willingness to avoid CO2 emissions. Ecological Economics, 227, p.108401.

4. Climate Policies

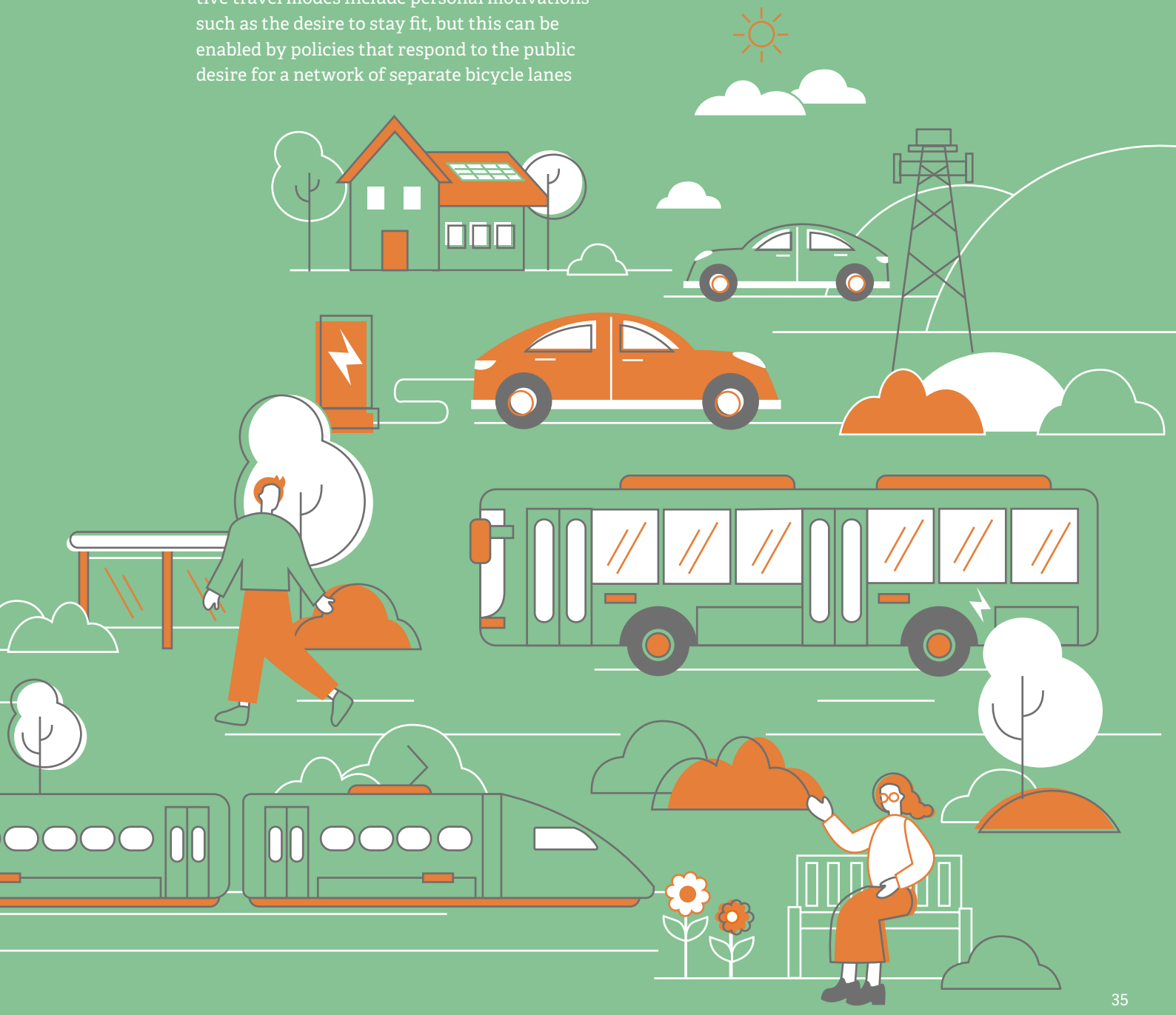
Selection of key findings

- Respondents are generally supportive of the need for climate policies for climate action
- 65% of adult respondents say the car is their main means of transport
- About 12% of car owners own an electric car, with electric vehicle ownership highest among those with a higher and those with more than one car
- 24% mention public transport as their most used means of transport
- Only 6% of respondents chose walking and only 3% said cycling was their most used mode of transport
- Current e-car owners were most motivated by a reduced climate impact, whereas potential first-time e-car owners rank long battery range, cost, and available charging infrastructure as important. Range and charging infrastructure anxiety next to cost appear as barriers to more e-car uptake.
- 52% of respondents with an income up to 1,250 euro per month rely on public transport as their main mode of transport, while 72% of respondents with an income higher than 8,000 euro per month rely on the car
- Respondents consider accessibility, service efficiency, and short journey as important factors when considering choosing public transport
- Respondents consider staying fit, weather conditions, and a large network of separate bicycle lanes as important factors when considering cycling
- On agricultural policy, there is variation among respondents' support for different policy avenues with respondents preferring options that do not raise food prices



Key take-aways

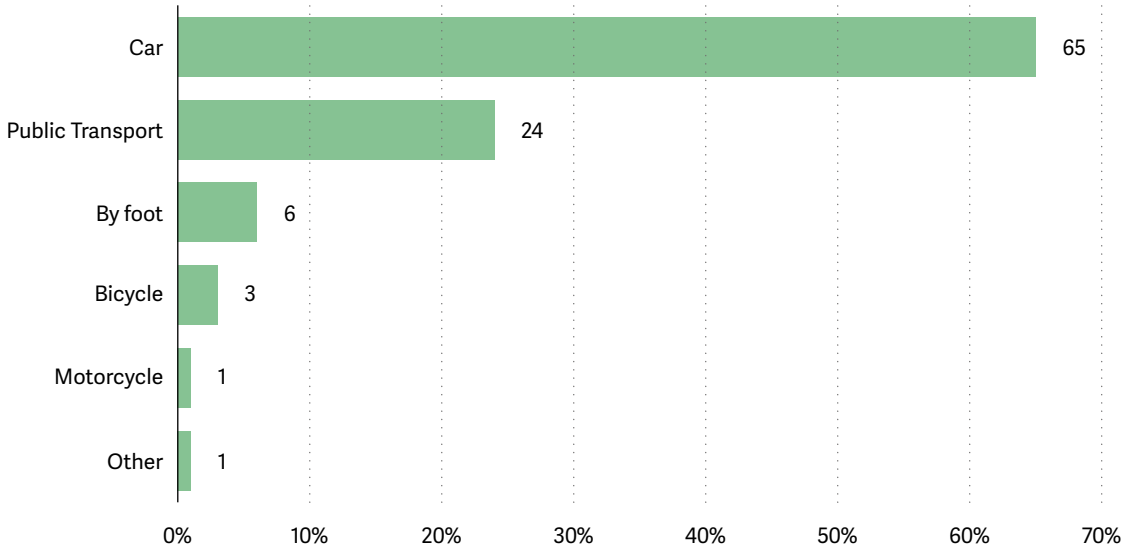
- The heavy reliance on petrol and diesel cars for transport in Luxembourg needs to be addressed for Luxembourg to meet its climate goals as elaborated in its National Energy and Climate Plan
- Policies are needed to provide the appropriate infrastructure and enabling environment to enable people to switch to lower-emissions alternatives, such as public transport, active travel modes and electric vehicles
- Respondents' motivations to switch to more active travel modes include personal motivations such as the desire to stay fit, but this can be enabled by policies that respond to the public desire for a network of separate bicycle lanes
- Since the mode of transport is heavily dependent on income, this will require packages of policies that address all income brackets, with lower-income households likely benefiting more from improved public transport, walking and cycling infrastructure, and higher-income households likely benefiting more from support for moving to electric vehicles
- Luxembourg's upcoming Social Climate Plan can help address the income disparities in mobility choices and preferences



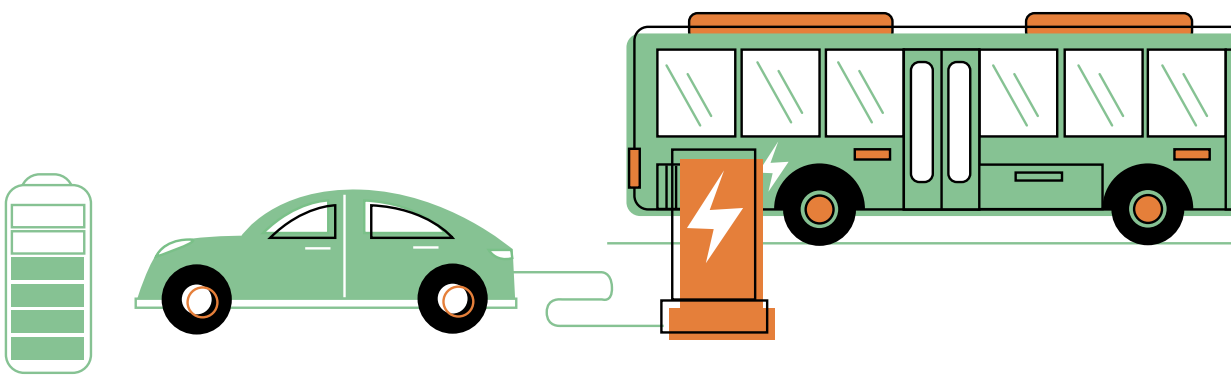
4.1 Transportation

4.1.1 Most Used Mode of Transport

What is your most used mode of transport?

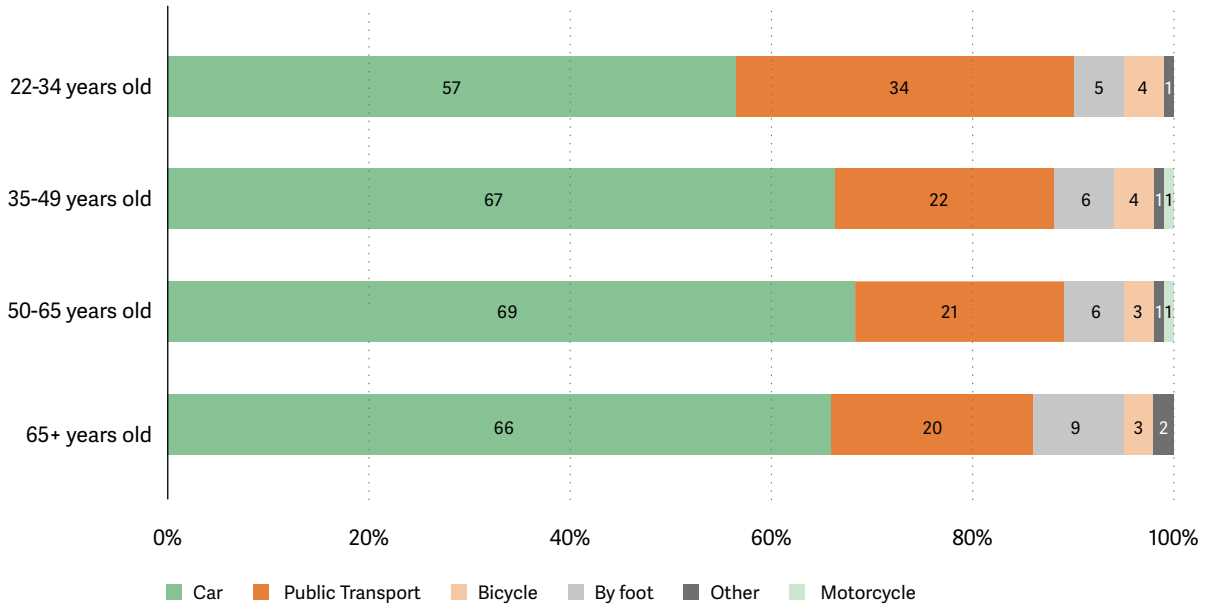


The data reveals a heavy reliance on private car use, with 65% of respondents identifying it as their primary mode of transport. Public transport emerges as the clear second choice at 24%, though still trailing car use by a factor of nearly 3:1. Active transportation methods show surprisingly low adoption rates. Only 6% primarily walk and a mere 3% rely on bicycles as their main transport, indicating significant untapped potential for these zero-emission alternatives. The marginal figures for motorcycles (0.5%) and other options (0.8%) confirm their niche status in the overall transportation landscape.

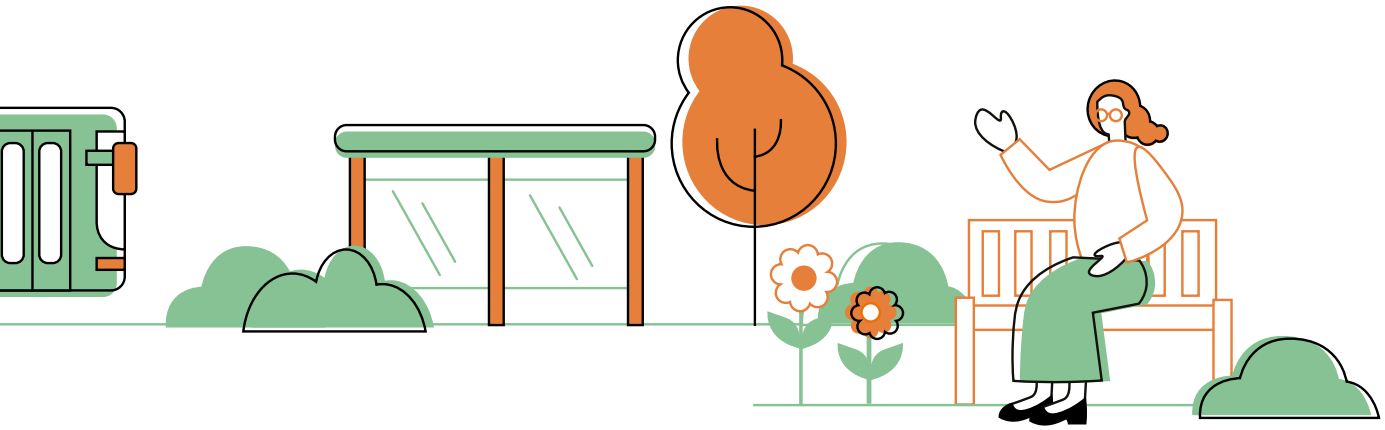


Most Used Mode of Transport: By Age

Most Used Mode of Transport: By Age

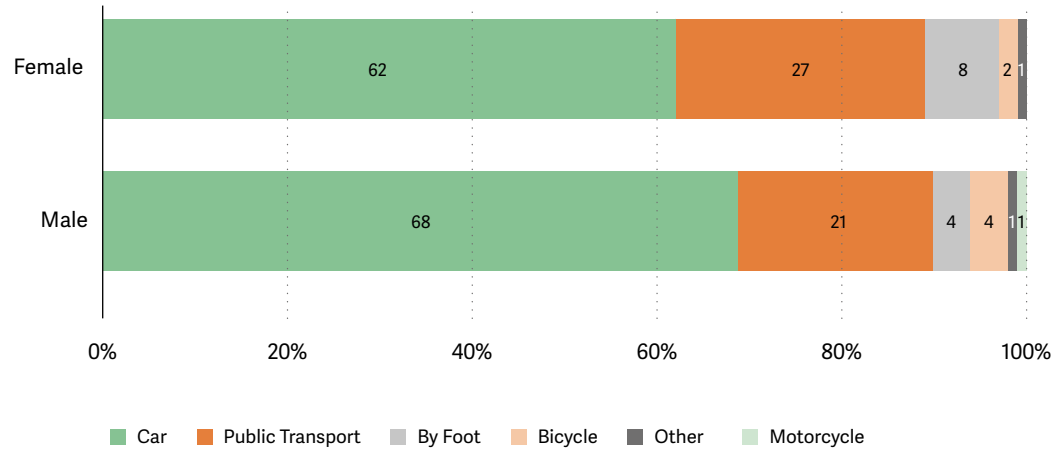


The analysis of transport modes across different age groups shows a clear preference for cars, with 57% of 22-34-year-olds, 67% of 35-49-year-olds, and 69% of 50-65-year-olds relying on cars as their primary mode of transport. Public transport use decreases with age, from 34% in the youngest group to 21% in the oldest group (65+). Walking increases with age, reaching 9% in the 65+ group. Motorcycle use is minimal across all age categories, while cycling is more common among younger groups but declines in older ones. Overall, cars dominate as the preferred mode of transport, with public transport and cycling less common as people age.



Most Used Mode of Transport: By Gender

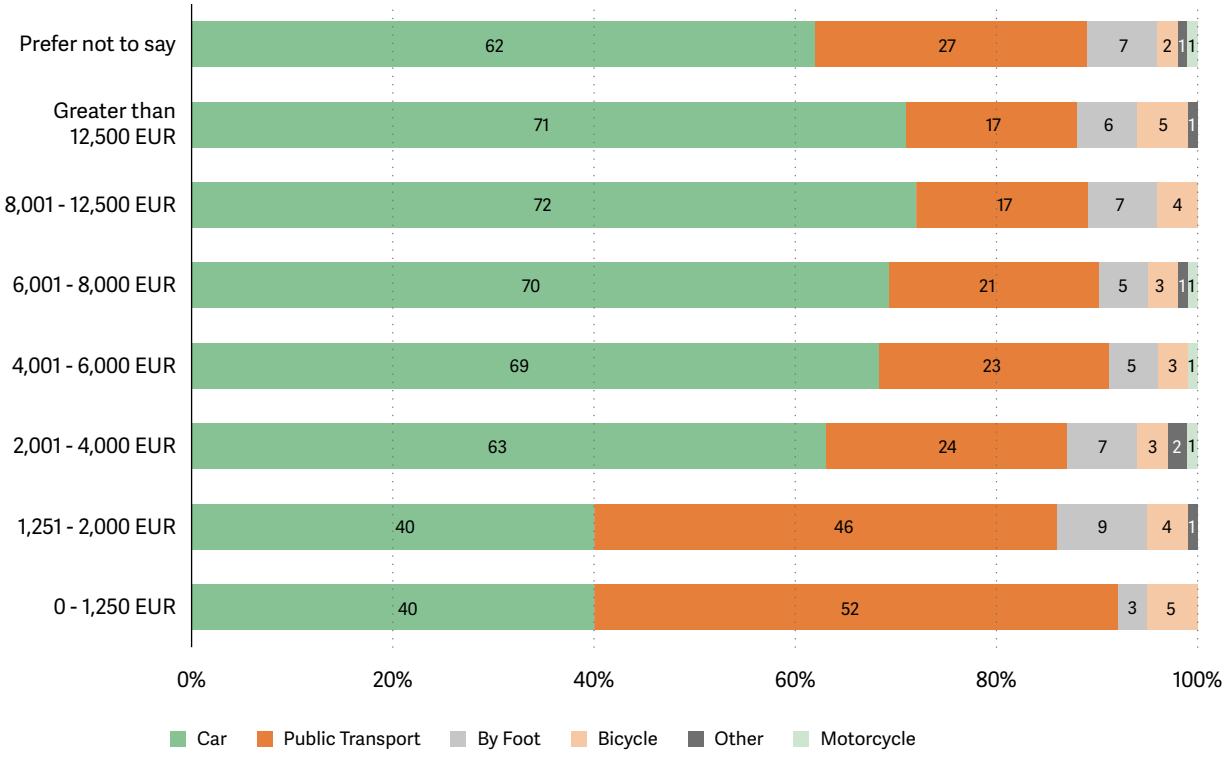
Most Used Transport Mode by Gender



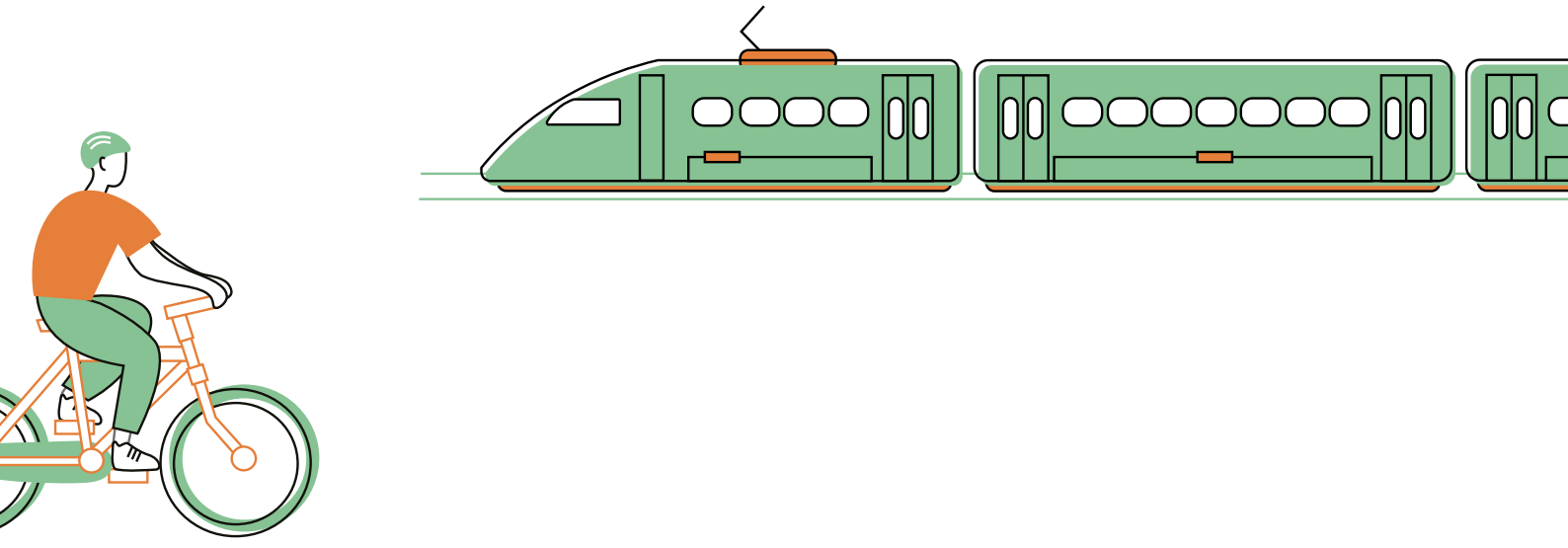
The analysis of transport mode preferences by gender reveals distinct differences in how each group prioritizes various transportation methods. Among males, the most popular mode of transport is the car, with 68% reporting it as their most used mode. This is followed by public transport (21%) and bicycle (4%). Females are 6 percentage points less likely than males to choose car as the main mode of transport, and 6 percentage points more likely to choose public transport. Additionally, females twice as likely to choose "by foot" and half as likely to choose the bicycle than males.

Most Used Mode of Transport: By Income

Most Used Transport Mode by Income

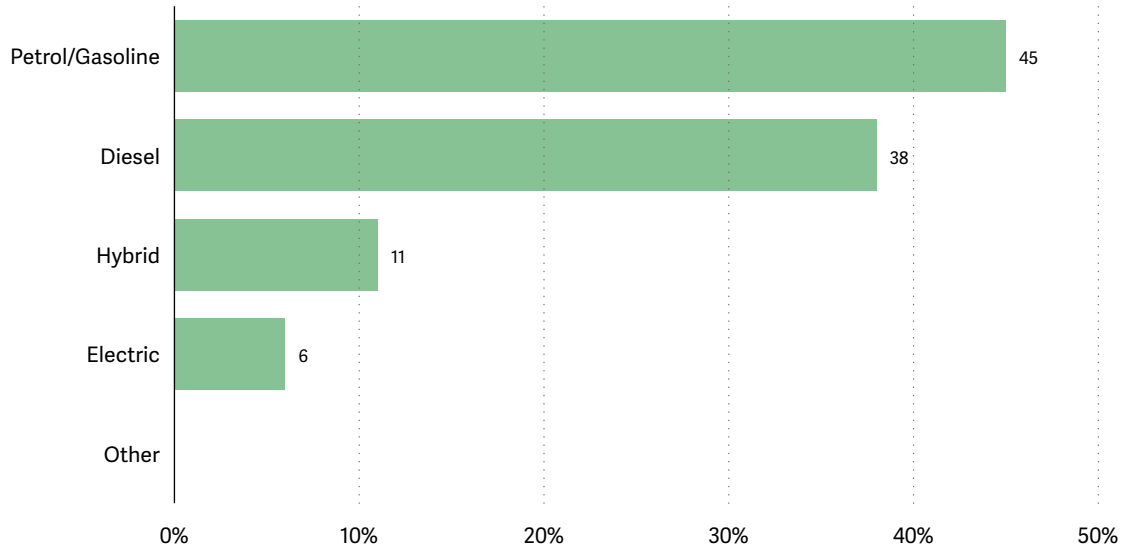


As for income, individuals with lower income (0 - 1,250 EUR) tend to rely more on public transport (52%), while higher income groups (6,001 - 8,000 EUR and above) predominantly use cars (70% to 72%). Public transport usage decreases as income rises, while car usage becomes more prevalent. The use of bicycles and walking also increases slightly with income, although they remain relatively low compared to cars and public transport.

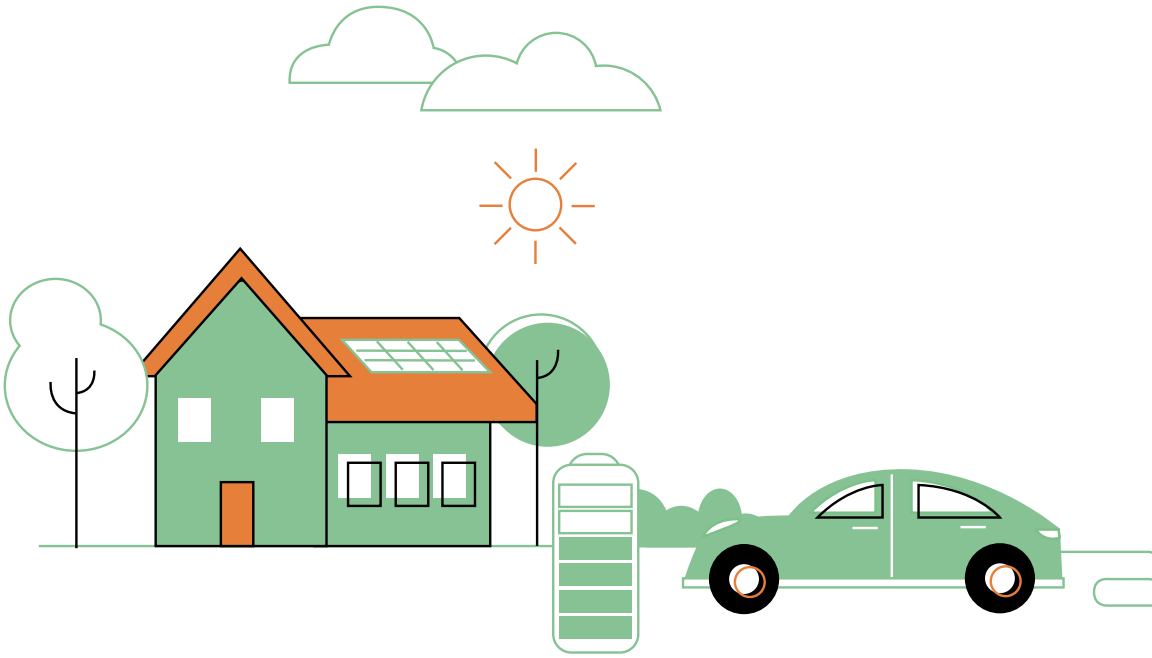


4.1.2 Cars

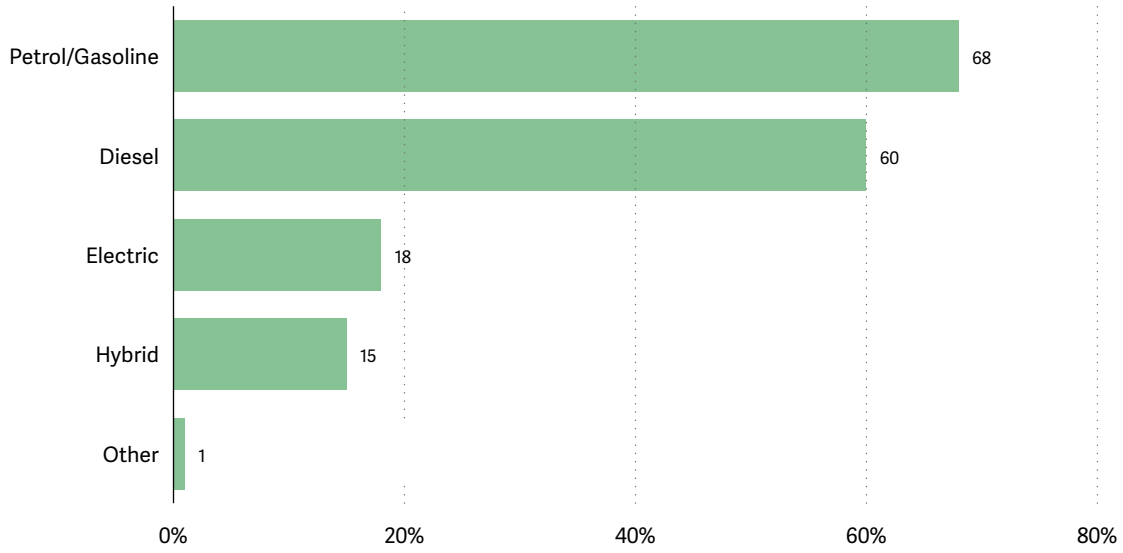
Households with only one car



The data reveals that traditional combustion engines remain dominant among single-car households, with petrol/gasoline vehicles leading at 45% followed closely by diesel at 38%. Hybrid vehicles have achieved modest penetration at 11%, while fully electric cars account for just 6% of these households. A negligible 0.4% of respondents reported owning vehicles in alternative fuel categories.



Households with more than one car



Among households with more than one car, about 68% have a petrol/gasoline car, followed by diesel cars (60%). The share of electric or hybrid vehicle ownership is however higher than for households with only one car: 18% of households had an electric vehicle and 15% a hybrid vehicle.

Electric Car Ownership

Educational attainment shows a strong positive correlation with electric vehicle adoption (including households with one car or more than one car). Ownership rates are lowest among those with primary education (4%) or no formal education (2%) and increase steadily with higher qualifications, including 10% for general secondary and 8% for vocational secondary. University graduates (higher education) reach 12% EV ownership, with master's degree holders peaking at 16%. Doctoral degree holders show a slightly lower rate (14%) than master's graduates, though still above the overall adult respondent average of 12%.

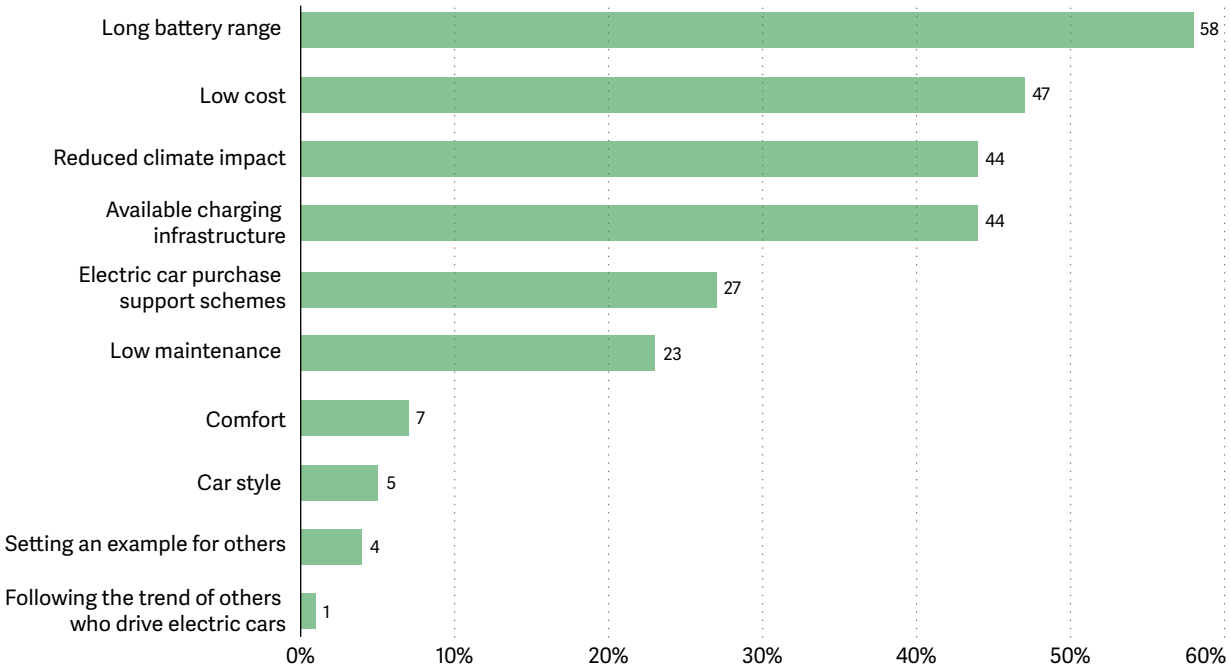
Electric vehicle adoption follows a distinct age pattern, peaking among middle-aged adults. Ownership is highest in the 35-49 age group (15%), suggesting this demographic is most likely to transition to EVs. Younger adults (22-34) show lower adoption (9%), likely due to financial constraints, while rates decline modestly among older age groups (50-65: 12%; 65+: 9%).

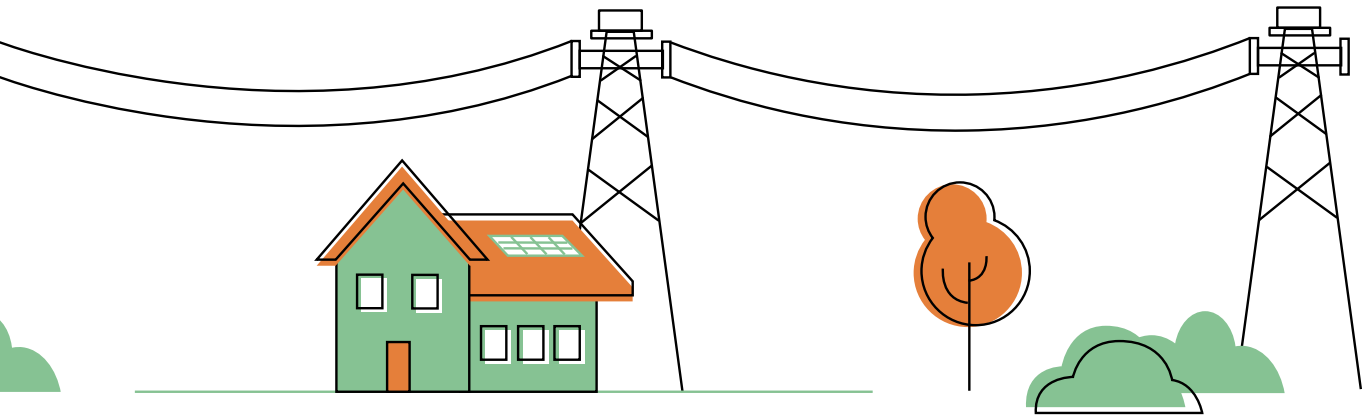
The data shows modest gender differences in electric vehicle adoption, with men (13%) slightly more likely to own an EV than women (10%).

Income emerges as the most decisive factor in EV adoption. The lowest-income group (under €1,250/month) reports just 2% EV ownership, while this figure increases progressively to 20% (€8,001-12,500) and to 25% among the highest earners (€12,500+). Middle-income groups show transitional adoption patterns, with a notable jump occurring at the €6,001-8,000 range (15%), suggesting this may represent a financial threshold for EV accessibility.

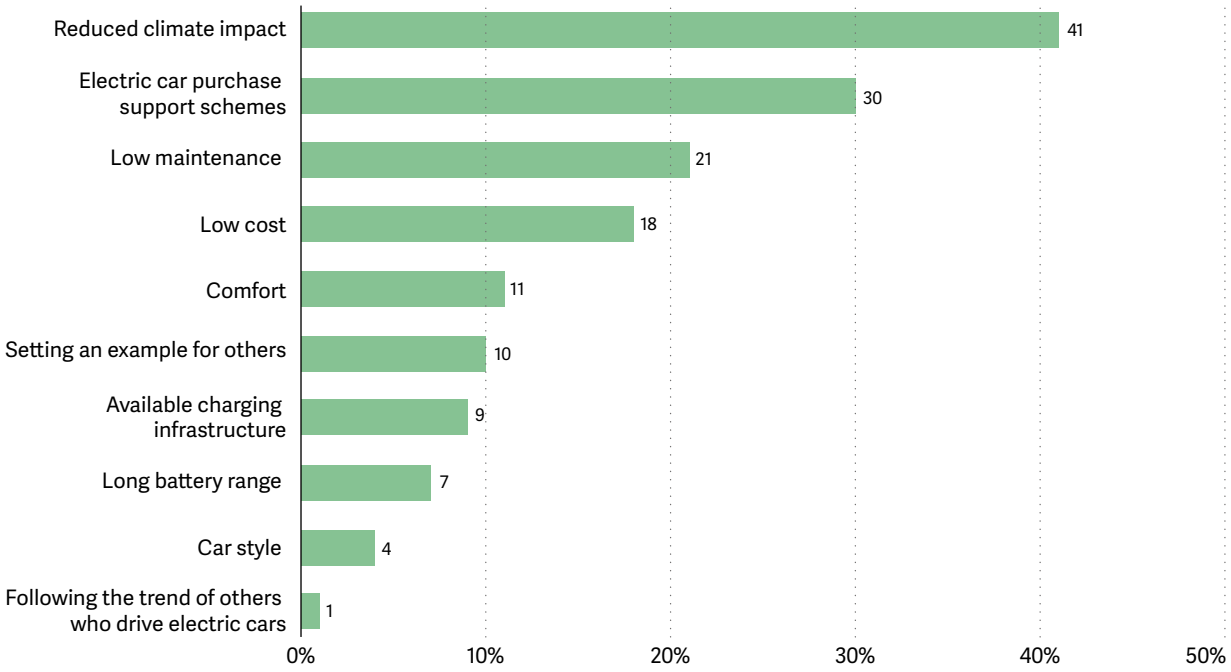
Motivation for switching to an electric car

What are the three most important factors that would motivate you to shift to an electric car? (if not e-car owner) [choose up to three]





What are the three most important factors that motivated you to shift to an electric car? (if e-car owner) [choose up to three]

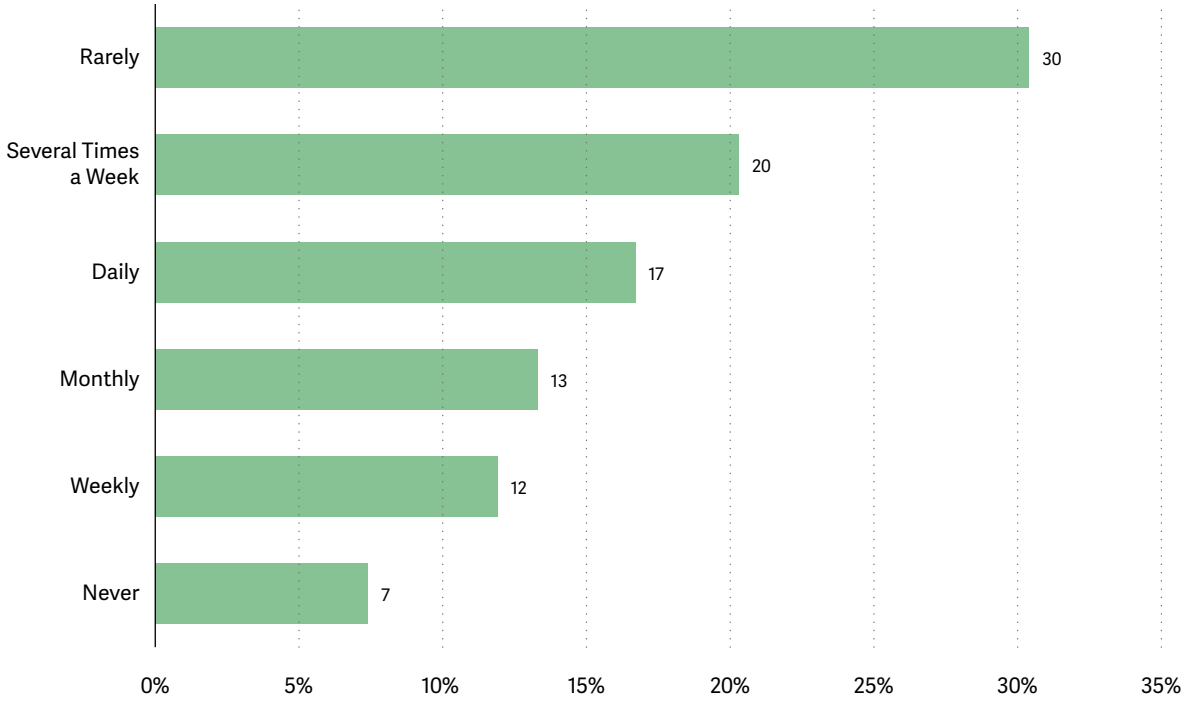


Among respondents who do not own an electric car, the most important motivating factors to shift to an electric car include long battery range (58%), low cost (47%), available charging infrastructure (44%) and reduced climate impact (44%). Among those who already own an electric car, the most important motivating factors include reduced climate impact (41%), electric car purchase support schemes (30%), low maintenance (21%), and low cost (18%).

Current e-car owners were most motivated by a reduced climate impact, whereas potential first-time e-car owners rank long battery range, cost, and available charging infrastructure as important. Range and charging infrastructure anxiety next to cost appear as barriers to more e-car uptake, while first movers place lower importance on range and charging infrastructure (possibly because they live or work in locations with ready infrastructure in place).

4.1.3 Public Transport

How often do you use public transport?

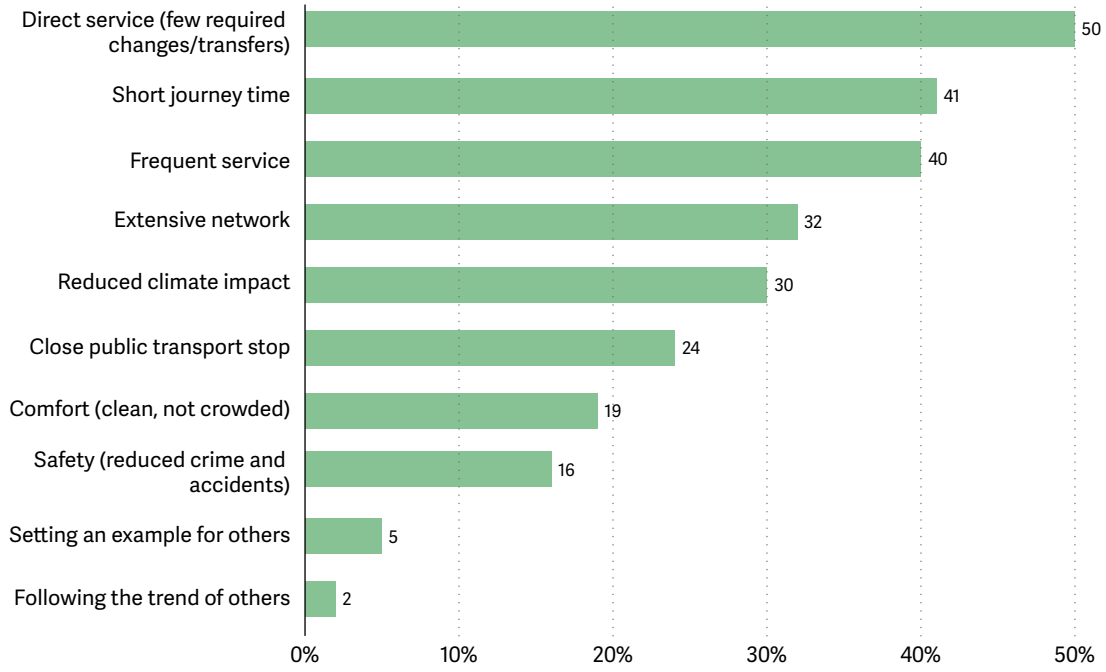


There are distinct patterns in public transport usage, with regular commuters representing a significant portion of the population – 17% use it daily and 20% several times weekly. Moderate users account for another quarter of respondents (12% weekly and 13% monthly), while infrequent users dominate as the largest single group at 30% (rarely) with 7% never using public transport.

The analysis of public transport usage by education (not shown in figure) level reveals several notable patterns, with higher education generally correlating with more frequent use. Individuals with master's degrees demonstrate the highest regular usage, with 23% using public transport daily and 26% several times weekly, while those with doctoral qualifications show particularly high several-times-weekly usage (28%). Higher education groups collectively maintain lower non-usage rates (3-6%) compared to primary (17%) and secondary education groups (10%). Interestingly, those with no formal education show the highest daily usage (25%) but also significant non-usage (11%), suggesting polarized mobility patterns in this group. Vocational and general secondary educated respondents exhibit similar patterns of relatively high infrequent use (40-41% 'rarely'), indicating that mid-tier education groups may be most dependent on alternative transport options.

As for age (not shown in figure), the survey reveals distinct generational patterns, with younger adults (22-34 years) showing the highest daily usage at 28%, while this frequency declines steadily with age to just. 4% among seniors (65+). Interestingly, weekly and monthly usage remains relatively stable across age groups (10-15% weekly and 12-15% monthly), suggesting these patterns represent more occasional, needs-based travel. While rare usage peaks among middle-aged groups (35-49 at 33%, 50-65 at 35%), non-usage remains consistently low (6-7%) until jumping to 12% among seniors, suggesting mobility challenges may begin limiting public transport access in older age.

What are the three most important factors that would motivate you to take public transportation more frequently? (if not a daily user) [choose up to three]



What would motivate the respondents to use public transport?

The data reveals that practical service quality factors are the strongest factors that would motivate the respondents to use public transport, with direct routes (50%), frequent service (40%), and short journey times (41%) emerging as top priorities. Infrastructure accessibility also plays a significant role, as 24% of respondents chose close stops and 32% chose extensive networks as among their top three factors. Environmental considerations show moderate influence (30% cite reduced climate impact), while comfort (19%) and safety (16%) represent secondary concerns. Notably, social factors like setting examples (5%) or following trends (2%) prove negligible.

What motivated the respondents to use public transport?

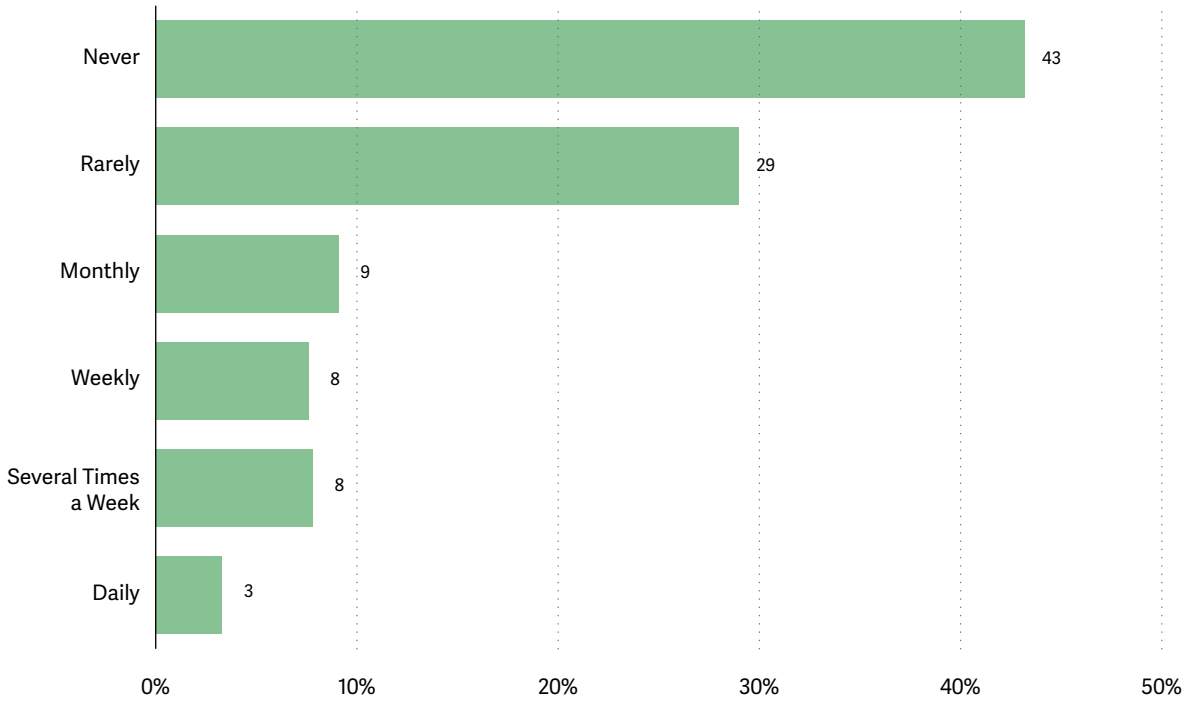
Among respondents who report using public transport daily, the data highlights that accessibility and service efficiency are the primary drivers of public transport use, with close proximity to stops (43%) and direct routes (35%) being the most frequently cited factors. Environmental considerations also play a significant role, as reduced climate impact (40%) ranks highly and 10 percentage points higher than for the share of the population not using public transportation daily. Practical service features like frequent service (29%) and short journey times (25%) further influence adoption, while lack of car access (22%) serves as a key practical motivator for some users.

Comfort (20%) and safety (14%) emerge as notable but secondary concerns, suggesting that while these factors matter, they are less decisive than core service attributes. Social influences like setting an example (7%) or following trends (1%) remain marginal, reinforcing that convenience and sustainability outweigh peer effects in transportation choices.

While what would motivate non-users to use public transport emphasizes practical factors like direct routes (50%) and frequent service (40%), what motivated current public transport users includes proximity to stops (43%) and environmental benefits (40%) as top reasons. Both groups prioritize efficiency (journey time/route directness), but current users more frequently cite climate impact, whereas potential users focus more on service frequency. Social influence remains negligible (<7%) for both.

4.1.4 Bicycle

How often do you use a bicycle?



The data reveals that cycling remains a relatively niche mode of transportation, with only 3% of respondents using a bicycle daily and 8% doing so several times a week. Combined, these frequent cyclists make up just 11% of the population, suggesting that bicycles serve as a primary means of transport for only a small segment.

Cycling weekly or monthly may capture leisure cycling activity rather than or in addition to commuting behavior.

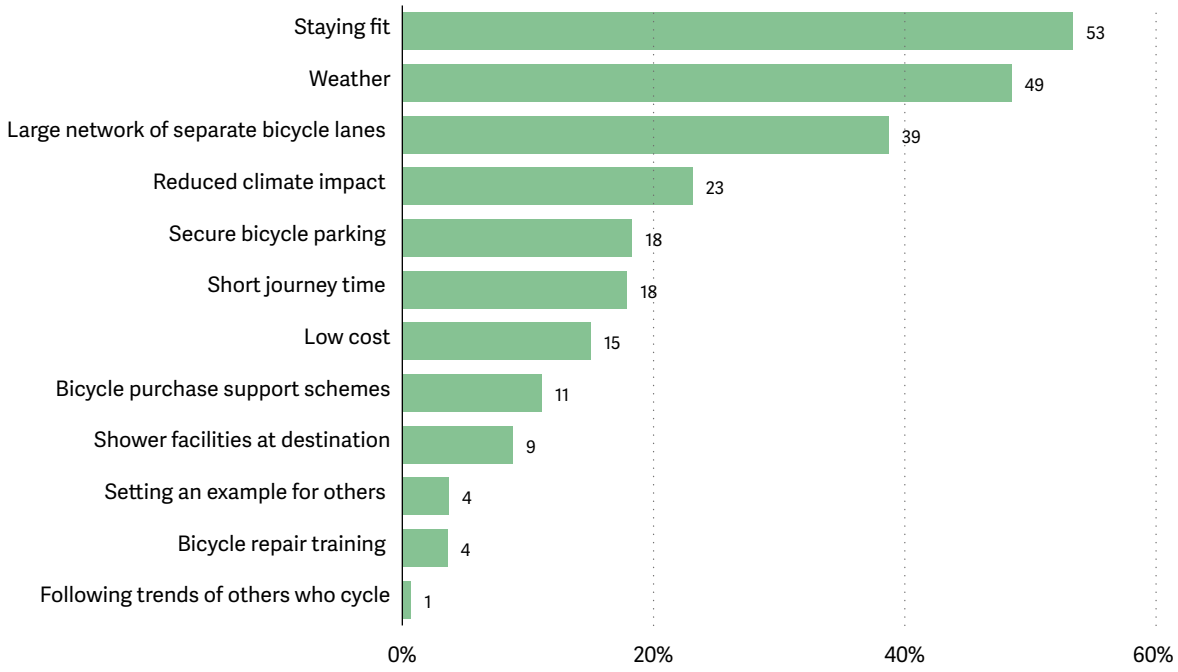
Moderate usage is slightly more common, with 7% cycling weekly and 9% monthly, indicating that around 17% of people use bicycles occasionally for commuting or leisure. However, the vast majority – 72% – either rarely cycle (29%) or never do so (43%), highlighting significant untapped potential for increasing bicycle adoption.

When it comes to education, the data shows a clear trend: bicycle usage increases with education level. People with higher education cycle more frequently – doctoral graduates lead at 6% daily riders, while only 2% of those with primary education cycle daily. The "never cycle" rate drops sharply from 71% for primary education to 31% for doctoral holders.

As for age, cycling habits show distinct patterns across age groups, with young and middle-aged adults demonstrating the most consistent usage. Adults aged 35-49 have the highest daily ridership at 4%, followed closely by 22-34 year-olds (4%). Both groups also show moderate weekly/monthly cycling (7-11%), suggesting bicycles serve as practical transport for working-age populations.

Older adults cycle less frequently but more regularly – while 50-65 year-olds have low daily use (3%), their several-times-weekly ridership peaks at 9%, higher than younger groups. This may reflect recreational cycling or shorter commutes. Seniors (65+) have the lowest engagement, with 62% never cycling – likely due to mobility limitations. However, their 9% several-times-weekly usage suggests some maintain cycling as exercise.

What are the three most important factors that would motivate you to use a bicycle more frequently? [Choose up to three]



The survey reveals that infrastructure and health benefits are the most powerful motivators for increased bicycle usage, with separate bike lanes (39%) and staying fit (53%) emerging as top factors. Practical considerations like secure parking (18%) and low cost (15%) also rank highly, while climate impact (23%) serves as a secondary motivator. Notably, weather conditions (49%) present a significant barrier, suggesting fair-weather cycling remains a challenge. These patterns indicate people prioritize safe, convenient cycling infrastructure and personal health benefits when considering bicycle use.

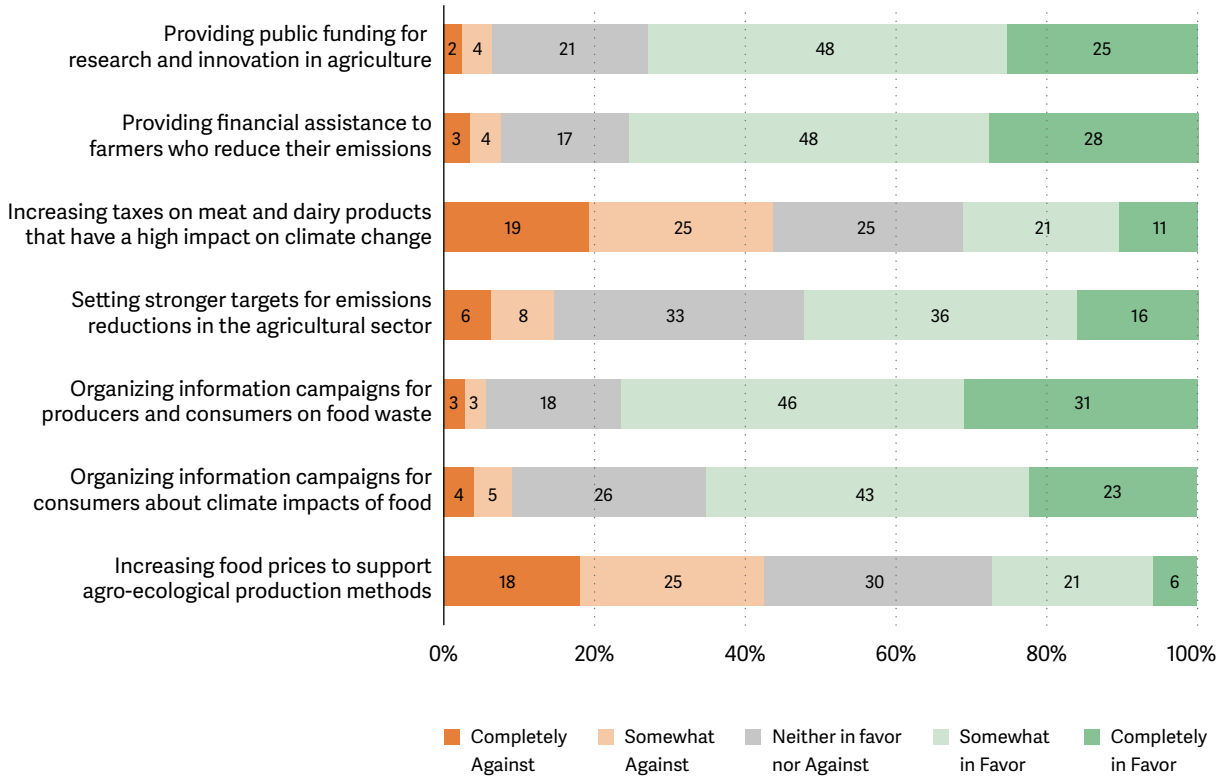
Among the share of the population already biking daily, the data reveals that health benefits ("staying fit" - 69%) and practical convenience ("short journey time" - 56%) are the strongest motivators among the bicycle users, followed by environmental concerns ("reduced climate impact" - 45%). Similar to public transport users, daily bikers are 22 percentage points more likely to cite reduced climate impact as a motivator compared to the rest of the population.

Infrastructure factors like separate lanes (30%) and secure parking (13%) show moderate importance, while economic considerations such as low cost (27%) and purchase support (9%) play secondary roles. Notably, social influences are virtually absent as motivators (0-9%), and ancillary factors like shower facilities (3%) or repair training (0%) show minimal impact.

There is a significant gap between what currently motivates cyclists and what could encourage more people to use bicycles (not shown in figure). While staying fit (69%) and short journey time (56%) are currently the strongest motivators, the potential for increased cycling is much higher if better infrastructure and weather resilience are addressed—39% would be motivated by a large network of bicycle lanes (vs. 30% now), and 48% cite weather as a key factor (vs. 12% currently). Additionally, secure parking (18% potential vs. 12% now) and climate impact (23% vs. 45%) show that while environmental concerns already matter, infrastructure improvements could further boost cycling rates. However, social influence (following trends, setting an example) and repair training remain negligible in both cases.

4.2 Policy Types: Agriculture

Please indicate whether you are in favor or against the following climate change policies.



The data reveals significant variation in support for different types of agricultural climate policies. Information-based approaches receive the strongest endorsement, with majorities favoring campaigns about food waste (77% "somewhat in favor" or "completely in favor", and similarly below) and climate impacts of food (65%). Financial support mechanisms also garner substantial approval, as 76% support assistance for emission-reducing farmers and 73% back funding for agricultural innovation.

Policies involving direct economic impacts face greater resistance. Only 27% favor increasing meat/dairy taxes, while 44% are against such measures. Similarly, raising food prices for agro-ecological methods finds just 27% support compared to 43% opposition. Emission reduction targets for agriculture receive moderate backing (52% in favor), though a third remain neutral.

Education

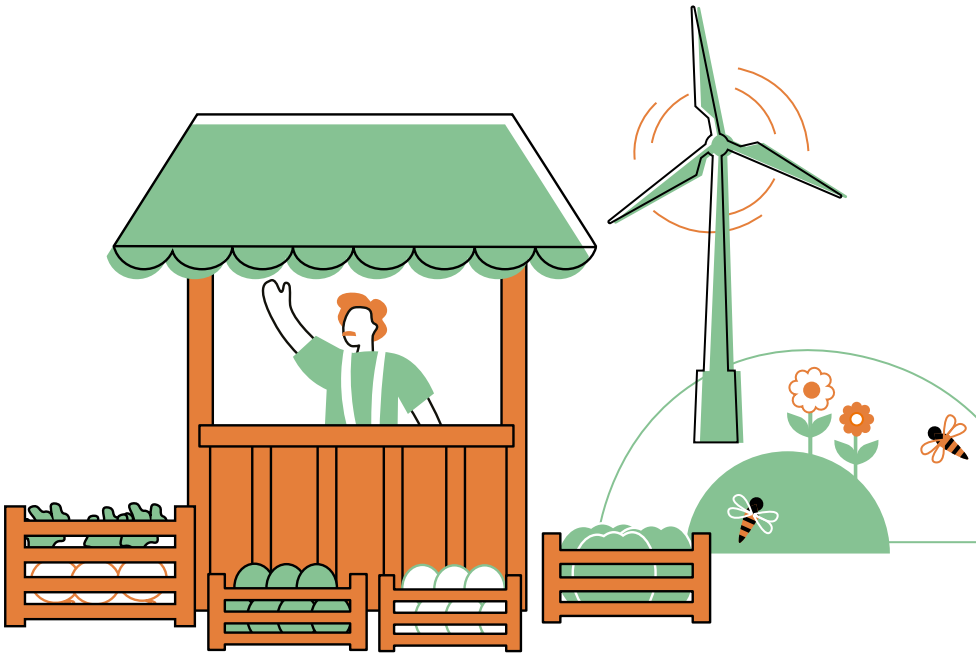
Support for agricultural climate policies consistently increases with education level. Highly educated groups, particularly doctoral degree holders, show the strongest backing across all policy types, with 77-87% supporting informational campaigns (77% for food waste, 78% for climate impact education) and financial measures (81% for farmer assistance, 87% for research funding). Market-based interventions, such as meat taxes (45%) and food price increases (47%), receive significantly less support overall but still follow the same education gradient, with approval rates more than doubling from primary (20% for both measures) to doctoral education levels.

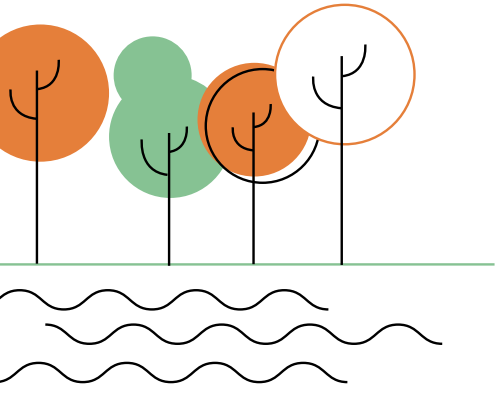
Those with vocational training display distinct preferences, showing higher support for emission reduction targets (68%) than general secondary graduates (63%). Individuals with no formal education consis-

tently express the lowest approval, particularly for cost-related measures (20-26%), though they still moderately favor practical solutions like food waste reduction campaigns (49%).

Income

The findings reveal income plays a limited role in shaping preferences, with informational and incentive-based measures maintaining broad approval regardless of economic status, while market interventions show slightly greater acceptance among lower-income respondents (19% in €6,001-12,500 brackets vs 23% in lower incomes).





5. Youth

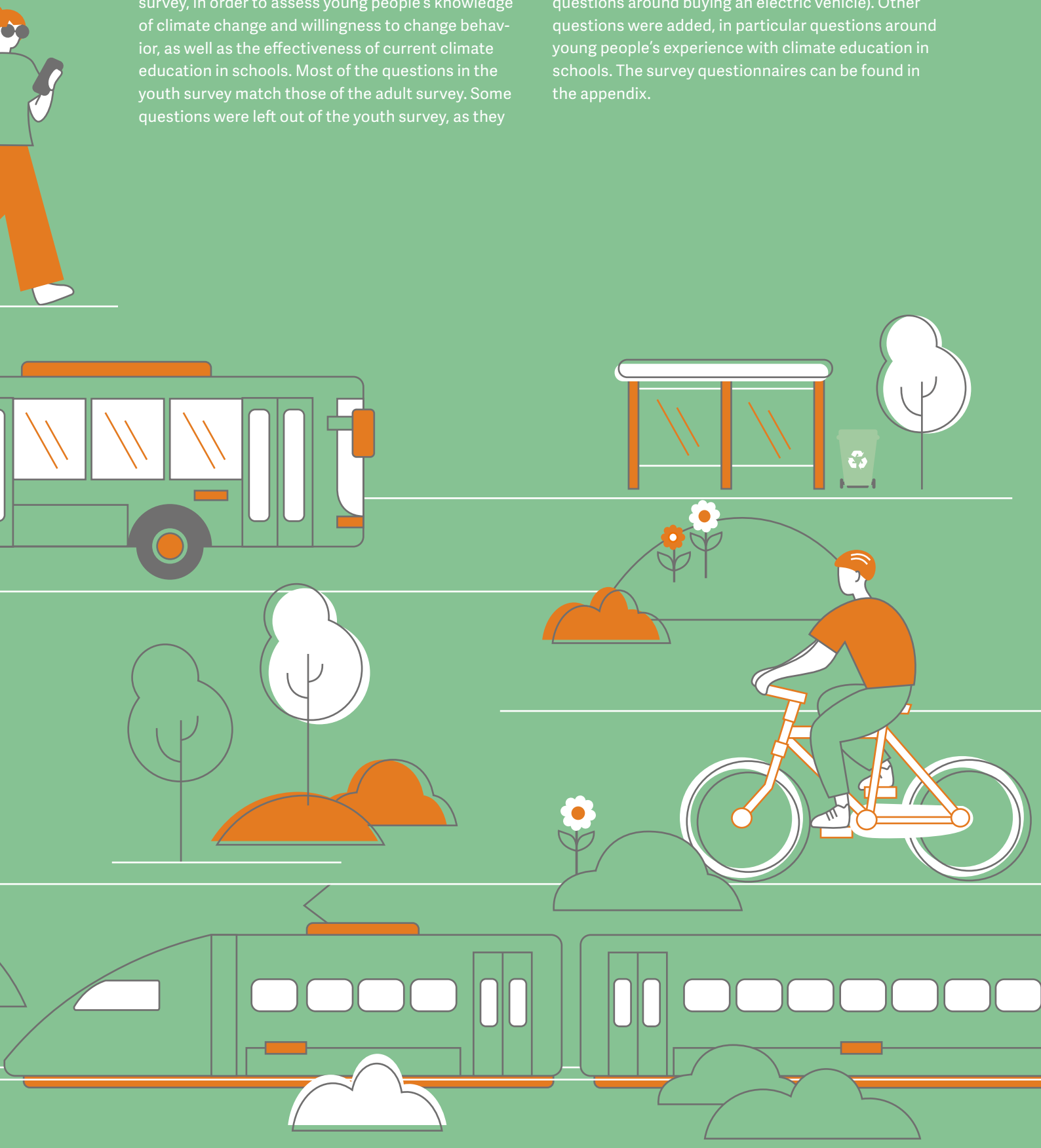
Selection of key findings

- The majority of Luxembourg youth (aged 15-21) surveyed were able to identify the correct definition of climate change
- Most students have heard of climate change and have received some education about it at school, but the majority does not feel well prepared to deal with it based on what they learned in school
- Youth respondents rated climate change as their third most important issue, behind personal safety and 'inequality and discrimination'
- Youth were generally less familiar than adults with many climate-related terms, especially the terms 'carbon sink' and 'just transition'
- Teachers are the primary leaders when it comes to climate change activities in schools
- Luxembourgish youth identified social media as their most frequent source (67%) for learning about climate change, higher than school (51%).

Key take-aways

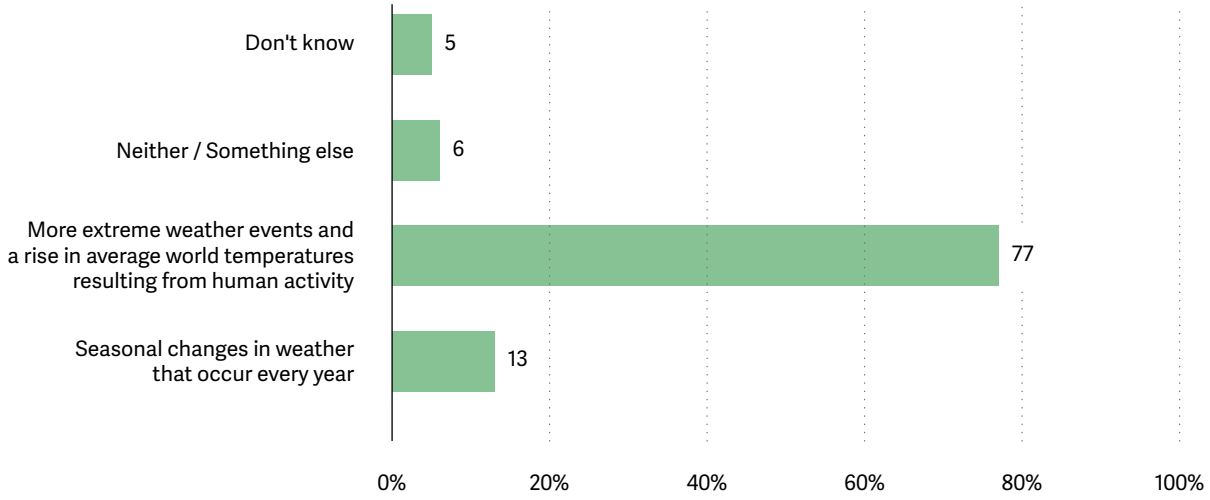
- Given the important role of teachers in shaping climate change perceptions in schools, providing support, training, information, and materials to teachers may be a particularly effective way to address low climate literacy among youth
- Improving knowledge and understanding of climate change includes efforts to impart knowledge around climate policies and solutions

Youth represented a second target population of the survey, in order to assess young people's knowledge of climate change and willingness to change behavior, as well as the effectiveness of current climate education in schools. Most of the questions in the youth survey match those of the adult survey. Some questions were left out of the youth survey, as they are less relevant to the young population (such as questions around buying an electric vehicle). Other questions were added, in particular questions around young people's experience with climate education in schools. The survey questionnaires can be found in the appendix.



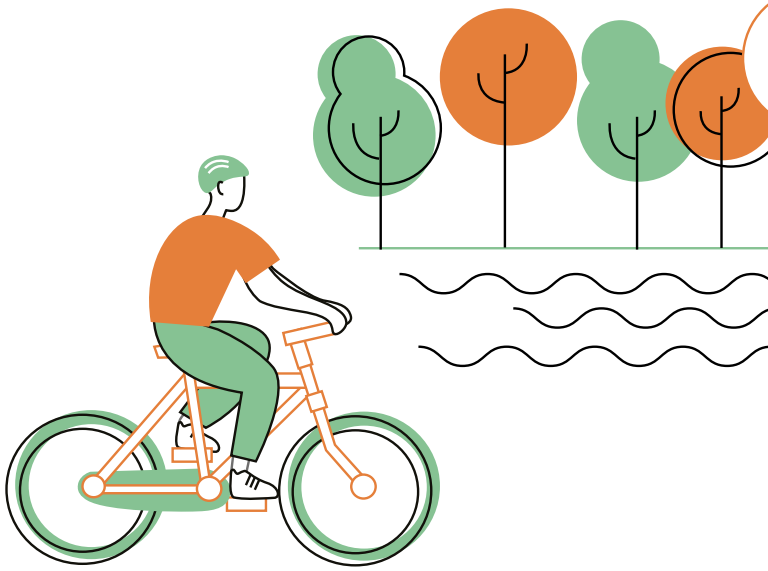
5.1 Climate Literacy

When you hear the phrase "climate change" which of the following comes to your mind?

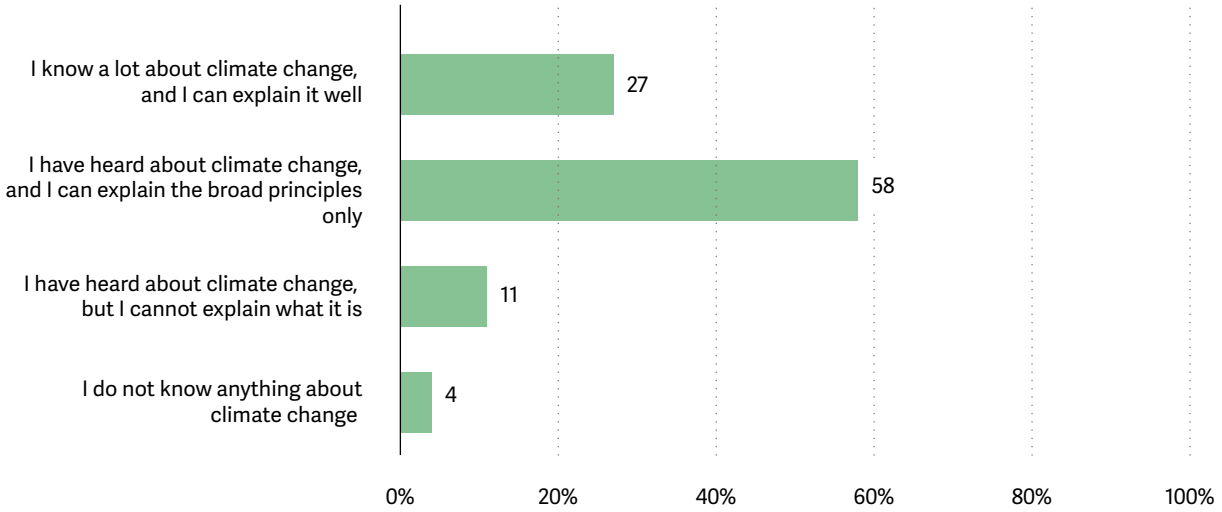


Just over three quarters of the youth respondents were able to select the correct definition of climate change as "more extreme weather events and a rise in average world temperatures resulting from human activity". The same question was asked in a survey conducted by UNICEF and Gallup in 2022.[1] Across the 55 countries that were part of the UNICEF survey, 48% misidentified climate change as "seasonal changes in weather that occur every year", a share almost 4 times greater than in Luxembourg (13%).

1 UNICEF and Gallup (2023). A Tumultuous World Through Children's Eyes: The Changing Childhood Project – A multigenerational, international survey on climate change knowledge, information, trust and identity. December 2023.

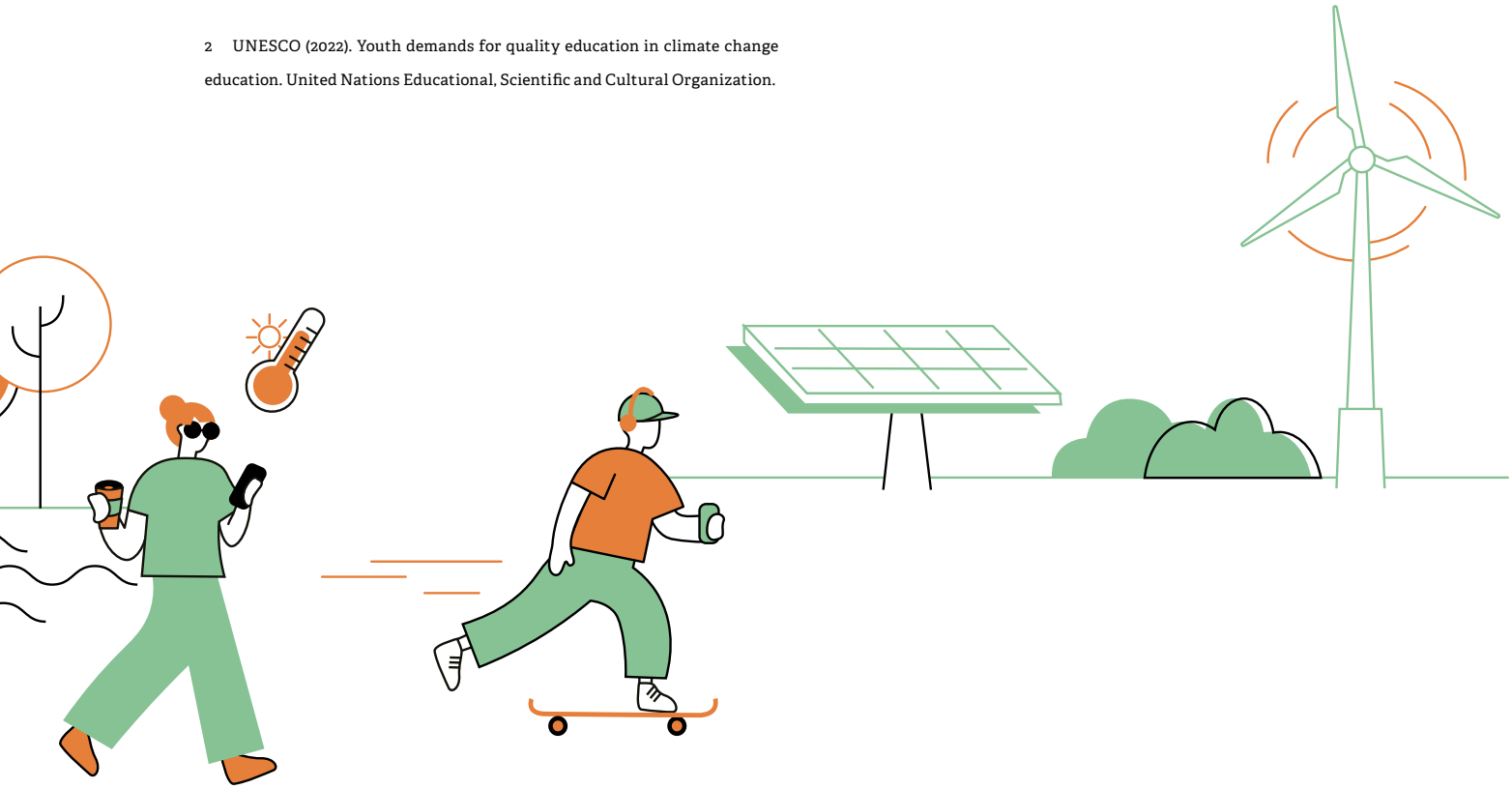


How much do you know about climate change?

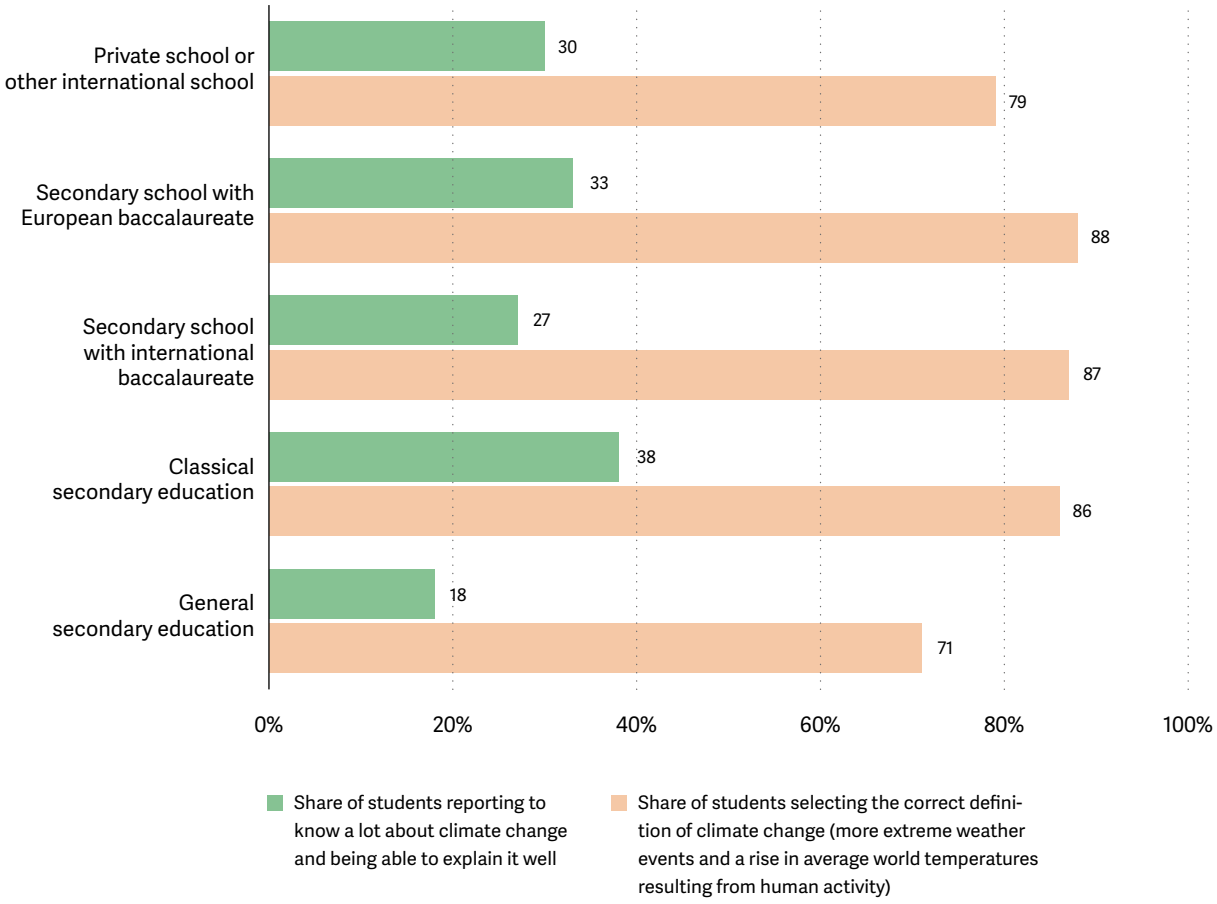


A quarter of youth respondents (27%) reported knowing a lot about climate change and being able to explain it well. Another 58% have heard about climate change and can explain the broad principles only, while 15% of youth respondents cannot explain what climate change is or do not know anything about it. The question was also asked in a survey across 166 countries by UNESCO in 2021 [2] with similar results for the group of countries combined in "Europe and North America". In the UNESCO survey, 12% of respondents in Europe and North America indicated not knowing anything about cliamte change or having heard about it but being unable to explain what it is. The share of respondents indicated knowing a lot about climate change and being able to explain it well was higher at 45%.

2 UNESCO (2022). Youth demands for quality education in climate change education. United Nations Educational, Scientific and Cultural Organization.



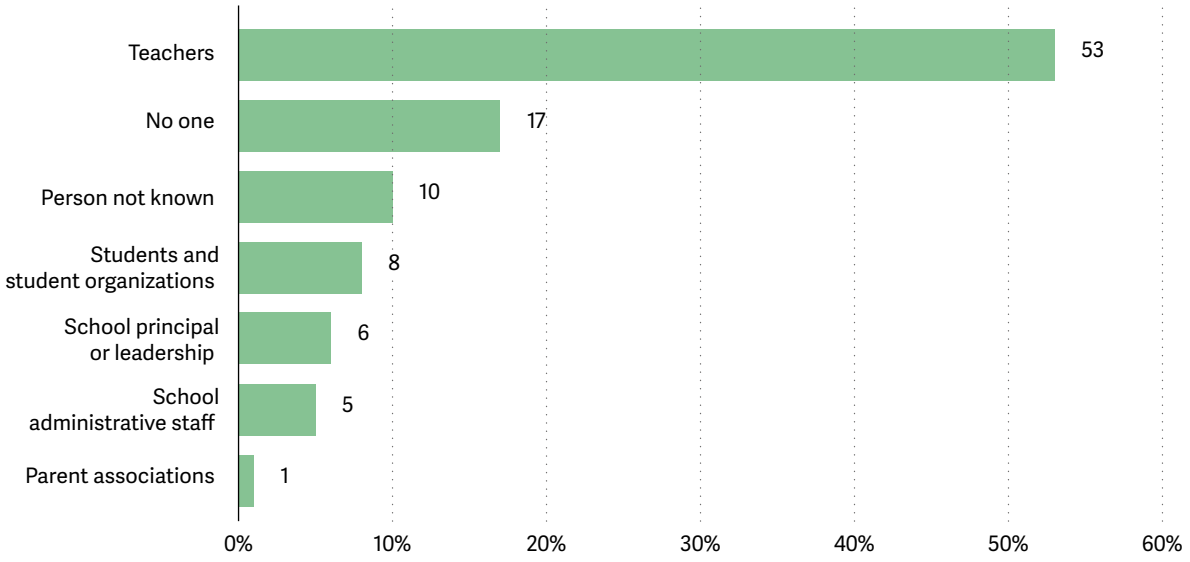
Climate change knowledge by type of school



In general, students in classical secondary education were more likely to choose the correct definition of climate change (15 percentage points higher) and to report knowing a lot about climate change. Students at secondary schools with a European or international baccalaureate similarly outperformed those in general secondary education.

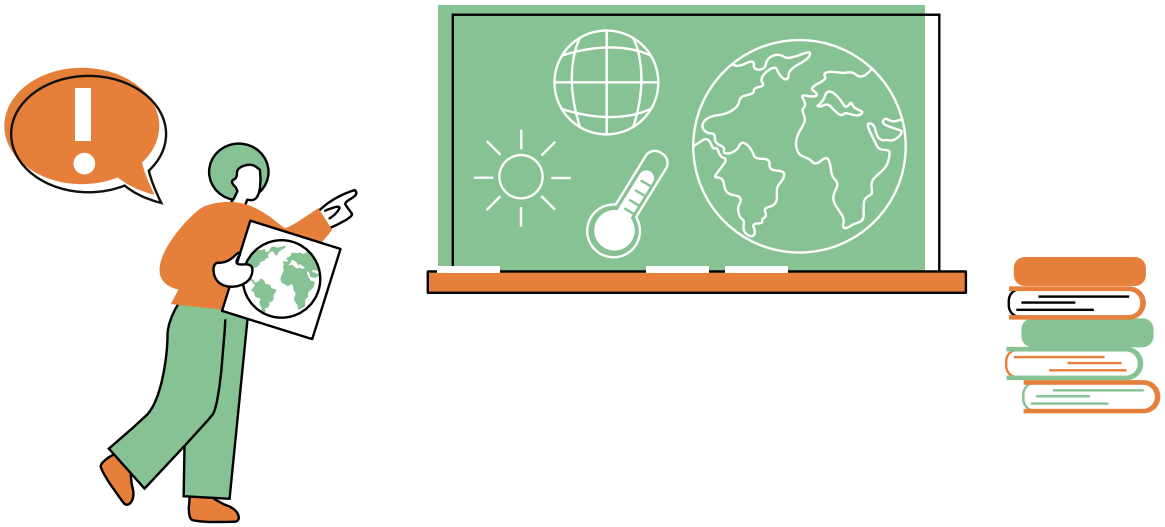
5.2 Learning about Climate Change in School

Who leads climate change activities in your school? (if currently in secondary school)

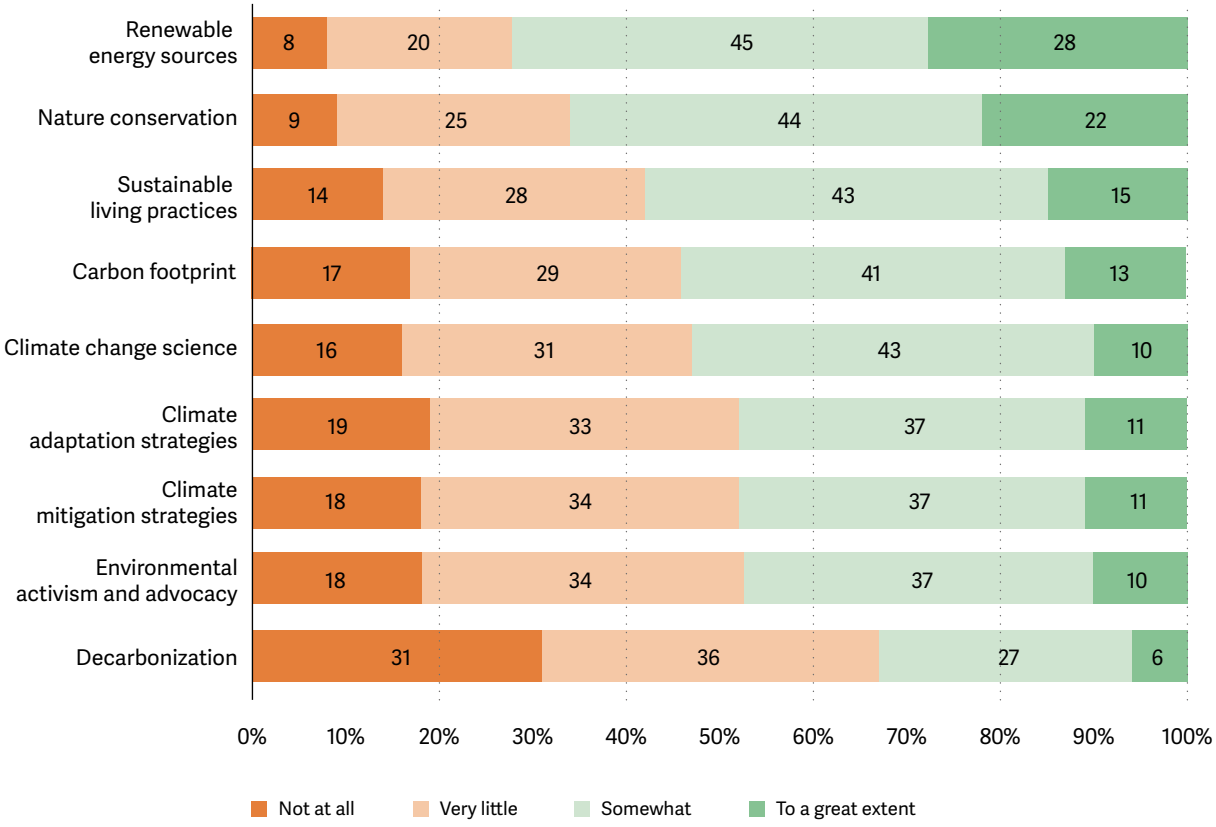


About 17% of youth respondents said no one leads climate change activities in their school, a much higher share than the 4% identified in the global UNESCO survey of 2021, where the same question was asked.

In Luxembourg about half of the respondents indicated teachers lead these activities, a similar share as in the UNESCO survey.

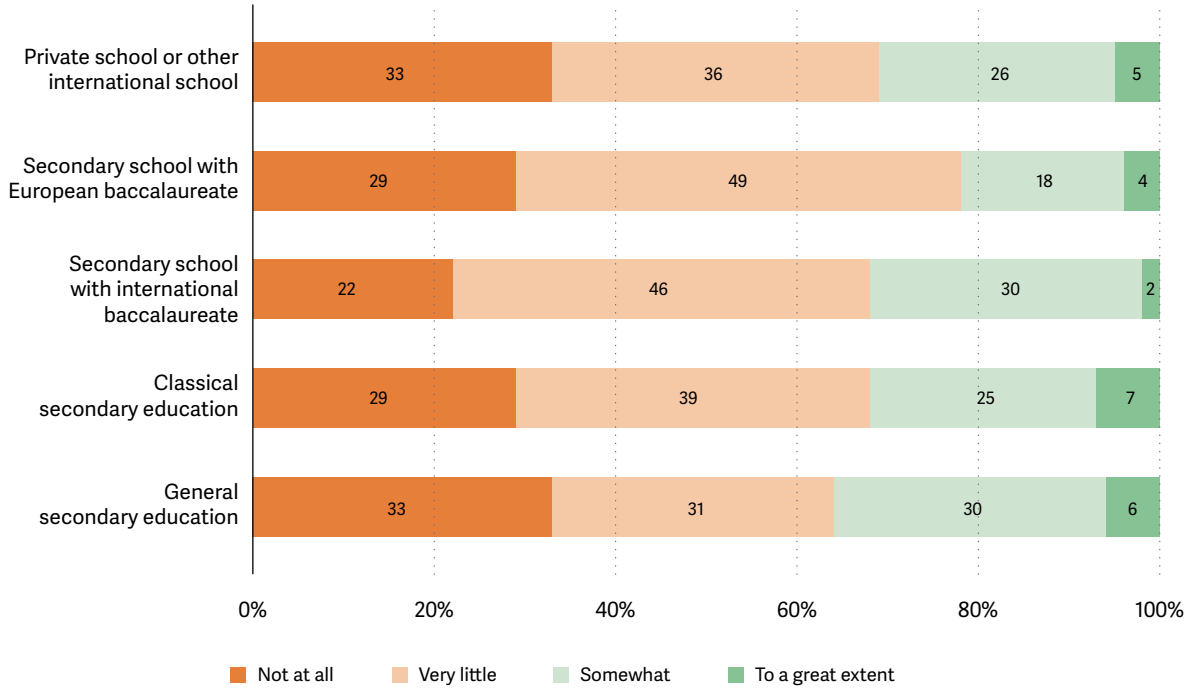


To what extent are the following subjects covered in the regular school curriculum? (for those currently in secondary school)



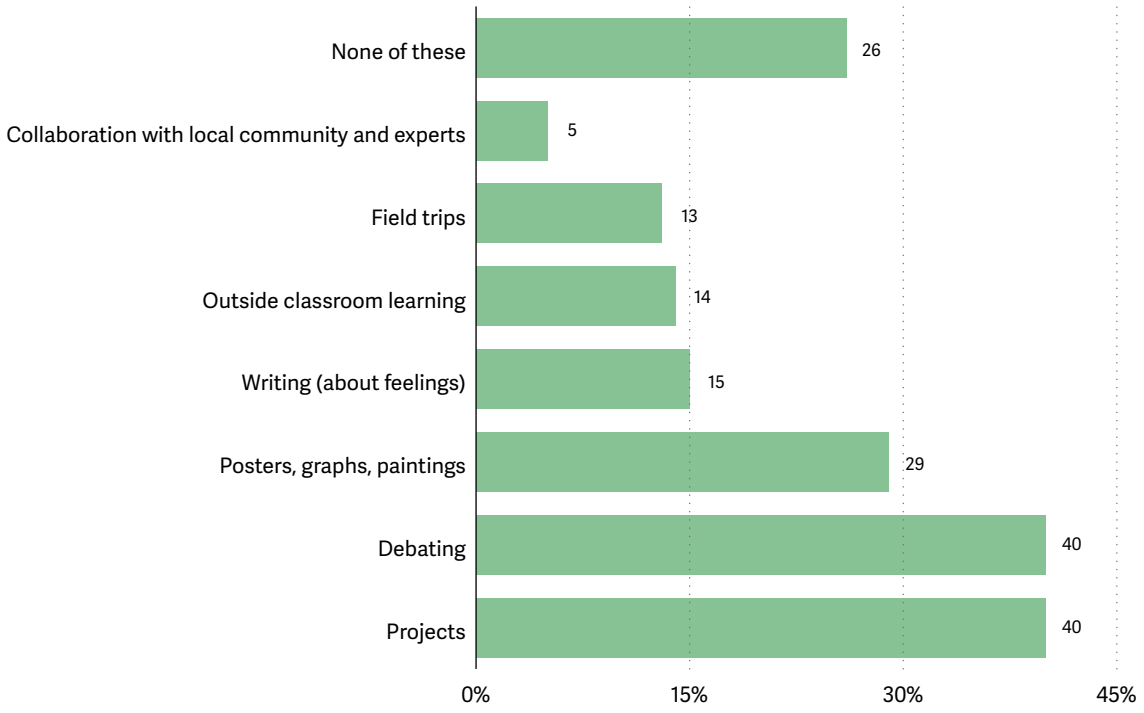
In general, renewable energy sources, nature conservation, and sustainable living practices emerged as the subjects most likely to be covered in the regular school curriculum. Decarbonization was identified as the subject least covered in the curriculum. Taken together, this indicates that students receive a more general overview of sustainable living practices but less instruction on how these living practices translate into decarbonization or how society as a whole can decarbonize.

To what extent is "Decarbonization" covered in the regular school curriculum



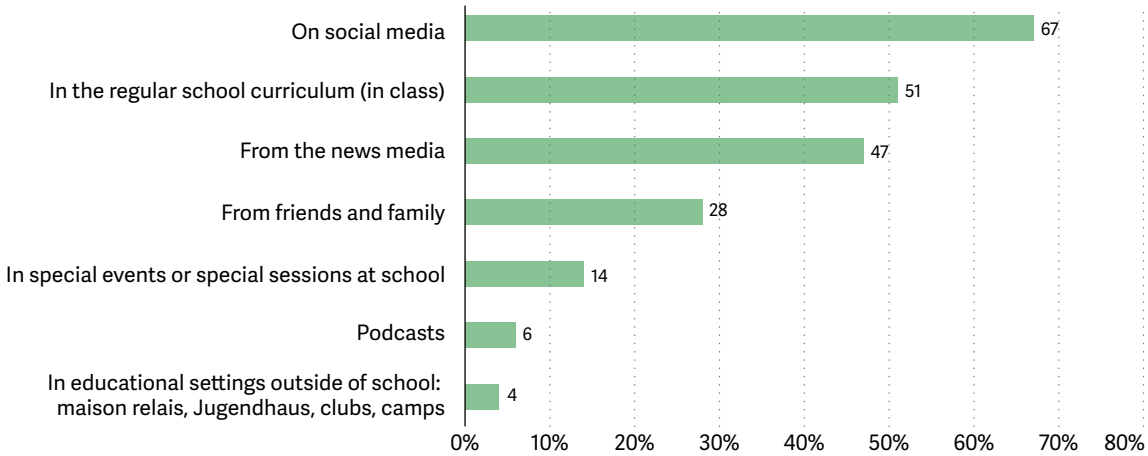
Focusing on "decarbonization", the subject least covered in the regular school curriculum, students at secondary schools with a European baccalaureate were most likely to report that the subject was not covered ("not at all" or "very little") compared to students at other types of school. Students at schools with general secondary education reported the highest share of coverage of the subject ("somewhat" or "to a great extent") but also the highest share of non-coverage ("not at all" or "very little"), indicating that the subject may be covered differently in general secondary schools across Luxembourg.

Which of the following activities do you do at school to learn about climate change? Please select all that apply.



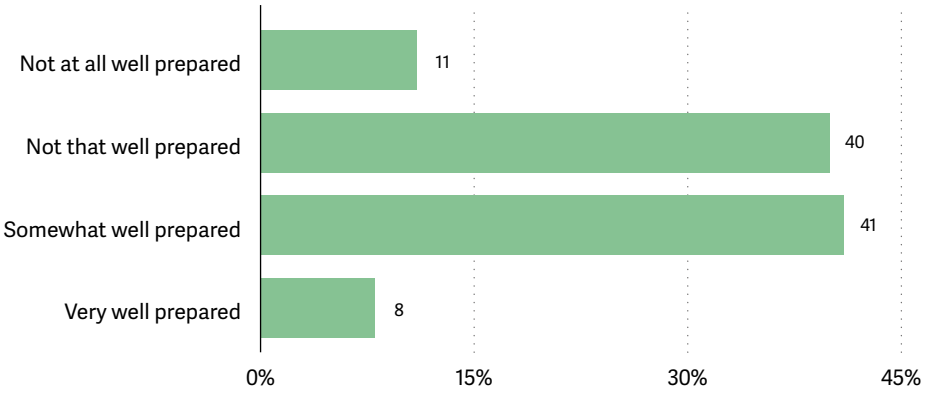
Luxembourgish youth currently enrolled in secondary school identified projects and debating as the most common activities they did at school to learn about climate change. About a quarter of respondents reported that none of the listed activities to learn about climate change had taken place. In these instances, climate change instruction may still have taken place but in a more conventional format, such as in a lecture format.

Where do you learn the most about climate change, environmental, or sustainability topics? (if currently in secondary school)



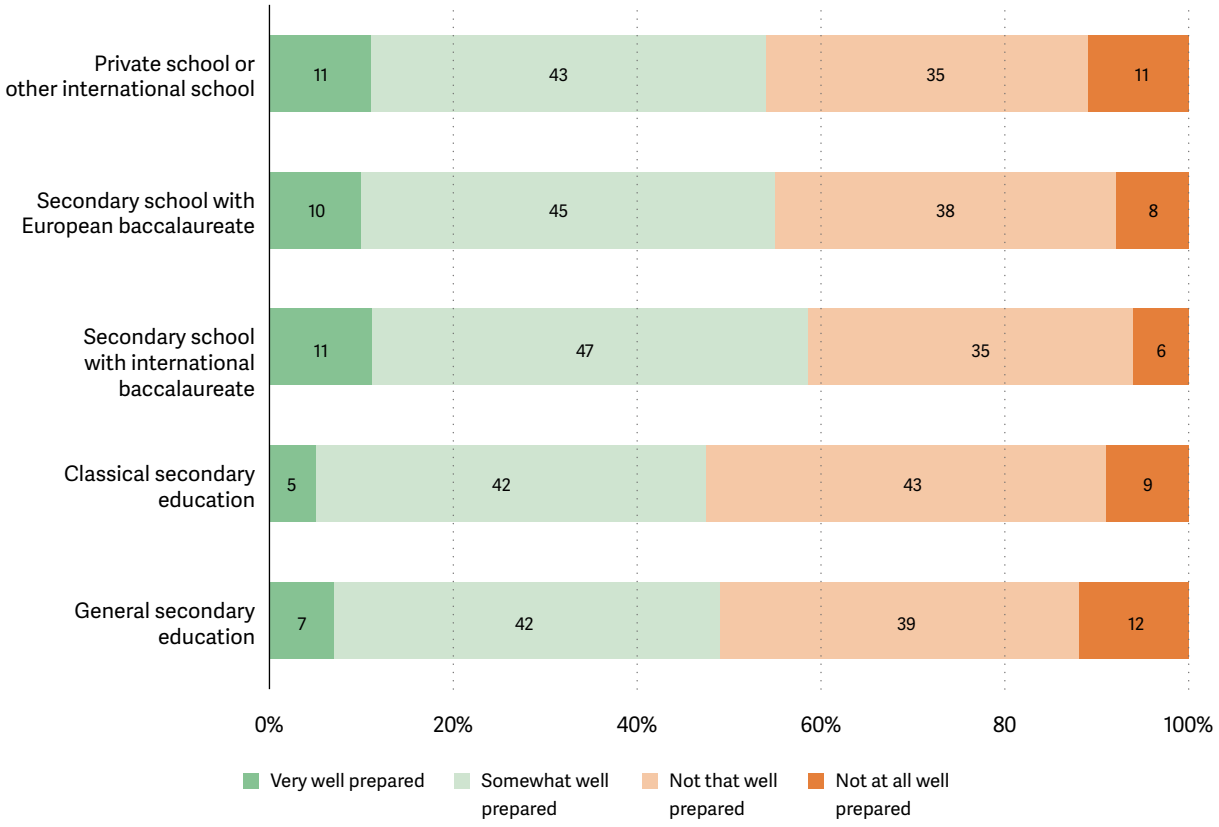
Luxembourgish youth identified social media as their most frequent source (67%) for learning about climate change, environmental, or sustainability topics, followed by the regular school curriculum (51%), and new media (47%). Friends and family were the next most important source for learning (28%). Next to improving the quality and coverage of climate change education in the regular school curriculum, social media, news media, and friends/family are important channels for reaching youth.

How prepared do you feel to deal with climate change based on what you learned at school?



The young population was fairly evenly split on whether they feel prepared to deal with climate change based on what they learned at school. This mirrors findings in the UNESCO 2021 global youth survey, which found that Europe and North America were the region with the highest percentage of respondents (47%) who reported they did not feel well prepared to respond to climate change based on what they learned at school (the highest proportion of dissatisfaction in comparison to other regions). The UNESCO survey also found that Europe and North America had the highest percentage of respondents (37%) wo reported that they did not receive climate change education in school, compared to other regions.

How prepared do you feel to deal with climate change, by type of school



On average, students in general or classical secondary education reported feeling less well prepared ("not at all" or "not that well" prepared) than students in secondary schools with the European or international baccalaureate.

5.3 Further Reflections

Most students have heard of climate change, but the majority does not feel well prepared to deal with it based on what they learned in school. Teachers are the primary leaders when it comes to climate change activities in schools. The curriculum is more likely to cover sustainable living, renewable energy, and nature conservation than topics directly related to climate change. Decarbonization was identified as the subject least covered in the curriculum. This mirrors findings in the adult survey and the EIB Climate Survey that the Luxembourg population knows less about climate solutions than about the definition, causes and consequences of climate change. If the curriculum does not change to teach students about climate solutions and their efficacy, the knowledge gap on the solution side will persist into adulthood.

Given that youth receive most of their information in school via teachers, teachers may represent an important channel to reach more young people, ensure they better understand climate change, and have accurate information on the effectiveness of actions. Thus, correcting lack of understanding and misperceptions around the effectiveness of actions to tackle climate change among teachers, and providing them with accurate materials for teaching may go a long way towards improving climate literacy among youth.

The lack of information among youth may partially explain their lower concern about climate change. This is puzzling based on most of our respondents expecting the most negative impacts from climate change to fall precisely on this younger generation and will require further analysis and attention.

6. Appendix

Adult questionnaire

Questions	Details	Response Options
Sociodemographic		
Q1 What year were you born?	**[Drop down menu of years]**	
Q2 What is your gender?	• **Male** • **Female** • **Prefer not to say**	
Q3 What is your nationality? Check all that apply.	▫ **Luxembourgish** ▫ **Belgian** ▫ **French** ▫ **German** ▫ **Portuguese** ▫ **Other in the European Union** ▫ **Other outside the European Union**	
Q4 What is your current employment status?	**A. Salaried employee** **B. Self-employed** **C. Permanently sick or disabled** **D. Unemployed** **E. Retired / pensioner Student** **F. F. Other**	
Q5 In what sector are you employed (or were you last employed)? [ASK IF Q4 = "A / B / E"]	• **Government** • **Leisure and hospitality** • **Finance/Insurance/Economics** • **Agriculture, fisheries, or forestry** • **Transportation** • **Manufacturing/Construction** • **Information technologies and communication** • **Education/Research** • **Health/Social services** • **Wholesale or retail trade** • **Justice** • **Other sector**	

Q6 What was approximately the range of your household's monthly take-home income (after taxes) in 2023?	• **0 - 1.250 euros** • **1.251 - 2.000 euros** • **2.001 - 4.000 euros** • **4.001 - 6.000 euros** • **6.001 - 8.000 euros** • **8.001 - 12.500 euros** • **Greater than 12.500 euros** • **Prefer not to say**	
Q7 Which of these descriptions comes closest to how you feel about your household's income nowadays?	• **Living comfortably on present income** • **Managing on present income** • **Finding it difficult on present income** • **Finding it very difficult on present income**	
Q8 What is the highest level of education that you have attained?	• **Primary education** • **General secondary** • **Vocational secondary** • **Higher education (BAC +3, License, Bachelor, ...)** • **Master** • **Doctoral or equivalent (PhD)** • **No formal education**	
Q9 Here is a list of qualities that children can be encouraged to learn at home. Which do you consider to be especially important? Please choose up to five.	▫ **Good manners** ▫ **Independence** ▫ **Hard work** ▫ **Feeling of responsibility** ▫ **Imagination** ▫ **Tolerance and respect for other people** ▫ **Thrift, saving money and things** ▫ **Determination, perseverance** ▫ **Religious faith** ▫ **Not being selfish (unselfishness)** ▫ **Obedience** ▫ **None of the above**	

Questions	Details	Response Options
Housing		
Q10 Where do you live?	• [Drop down menu of LU Communes]	
Q11 What is your housing status?	• Residence owned by yourself or your household • Residence rented by yourself or your household • Another type of accommodation, e.g. university dormitory, army base, retirement home	
Q12 What kind of accommodation do you live in?	• a detached house • a semi-detached house • a house in a row • a farm • apartment or flat in a building of 2 to 4 accommodations • apartment or flat in a building of 5 to 9 accommodations • apartment or flat in a building with 10 or more accommodations • another type of accommodation	

Climate Literacy		
Q13 Please select your most preferred information sources when it comes to environmental issues. [choose up to 3]	▫ Scientists ▫ National government ▫ Local government ▫ International organizations (e.g. United Nations, OECD) ▫ Non-governmental organizations (NGOs, e.g. WWF, Greenpeace) ▫ Companies ▫ Politicians ▫ Media (Newspapers, TV, etc.) ▫ Social media ▫ Family, friends, and neighbors ▫ I do not seek information on environmental issues	
Q14 How often do you read or hear about climate change via your preferred news source?	• Every day • Several times a week • Several times a month • Several times a year • Once a year • Never	
Q15 How important are each of the following issues to you personally?	• Climate change (e.g. rising average temperatures, extreme weather events) or other environmental issues (e.g. pollution) • Public health issues (e.g. the COVID-19 pandemic) • Inequality and discrimination (e.g. racial or gender-based) • Economic concerns (e.g. unemployment, price growth, poverty) • Political tensions (e.g. polarization) or political violence (e.g. war) • Personal safety (e.g. crime, theft, gender-based violence)	**Response options for each:** • not at all important • not important • indifferent • important • very important • prefer not to say

Questions	Details	Response Options
Transportation		
Q16 What is your most used mode of transport?	• **Car** • **Motorcycle** • **Public transport** • **Bicycle** • **By foot** • **Other**	
Q17 How many cars does your household have?	• **0** • **1** • **2** • **3** • **4** • **5+**	
Q18 Is your household's car... [ASK IF Q17= "1"]	• **Electric** • **Diesel** • **Petrol/gasoline** • **Hybrid** • **Other**	
Q18A What kind of cars are they? [ASK IF Q17= "2/3/4/5+"]	▫ **Electric** ▫ **Diesel** ▫ **Petrol/gasoline** ▫ **Hybrid** ▫ **Other**	
Q19 What are the three most important factors that would motivate you to shift to an electric car? [choose three] [ASK IF Q18 or Q18A ≠ Electric]	▫ **Low cost** ▫ **Electric car purchase support schemes** ▫ **Long battery range** ▫ **Available charging infrastructure** ▫ **Reduced climate impact** ▫ **Low maintenance** ▫ **Car style** ▫ **Comfort** ▫ **Following the trend of others who drive electric cars** ▫ **Setting an example for others**	
Q19A What are the three most important factors that motivated you to shift to an electric car? [choose three] [ASK IF Q18 or Q18A = Electric]		

Q20 How often do you use public transport?	• **Daily** • **Several times a week** • **Weekly** • **Monthly** • **Rarely** • **Never**	
Q21 What are the three most important factors that would motivate you to take public transportation more frequently? [choose up to three] [ASK IF Q20 ≠ " Daily"]	▫ **Close public transport stop** ▫ **Frequent service** ▫ **Direct service (few required changes/transfers)** ▫ **Extensive network** ▫ **Short journey time** ▫ **Reduced climate impact** ▫ **Setting an example for others** ▫ **Following the trend of others who use public transport** ▫ **Comfort (clean, not crowded)** ▫ **Safety (reduced crime and accidents)** ▫ **Do not have access to a car [Q21A]**	
Q21A What are the three most important factors that motivated you to take public transportation frequently? [choose up to three] [ASK IF Q20 = " Daily"]		
Q22 How often do you use a bicycle?	• **Daily** • **Several times a week** • **Weekly** • **Monthly** • **Rarely** • **Never**	
Q23 What are the three most important factors that would motivate you to use a bicycle more frequently? [Choose up to three] [ASK IF Q22 ≠ " Daily"]	▫ **Large network of separate bicycle lanes** ▫ **Secure bicycle parking** ▫ **Short journey time** ▫ **Shower facilities at destination** ▫ **Reduced climate impact** ▫ **Setting an example for others** ▫ **Following trends of others who cycle** ▫ **Staying fit** ▫ **Weather** ▫ **Bicycle purchase support schemes** ▫ **Low cost** ▫ **Bicycle repair training**	
Q23A What are the three most important factors that motivated you to use a bicycle frequently? [Choose up to three] [ASK IF Q22 = " Daily"]		

Questions	Details	Response Options
Climate Beliefs and Attitudes		
Q24 To what extent do you agree with the following statements about climate change?	• **Recent climate change is scientifically proven and primarily caused by human activity.** • **I am worried about climate change.** • **Slowing down climate change is urgent.** • **The Luxembourg government should do more to slow down climate change.** • **The European Union should do more to slow down climate change.** • **Businesses and large corporations should do more to slow down climate change.** • **Individuals should do more to slow down climate change.** • **Climate change can no longer be stopped.** • **Measures to slow down climate change will improve Luxembourgers' well-being.** • **Measures to slow down climate change will increase inequality between different households in Luxembourg.**	**Response options for each:** • **Completely disagree** • **Somewhat disagree** • **Neither agree nor disagree** • **Somewhat agree** • **Completely agree**

Q25 To what extent do you agree with the following statements?	• Environmental impacts are frequently overstated. • I am willing to make changes in my current lifestyle for the benefit of the environment. • Protecting the environment can boost the economy. • Environmental issues should be dealt with primarily by future generations. • Environmental issues should be resolved mainly through public policies. • Environmental policies introduced by the government should not cost me extra money. • Environmental issues will be resolved mainly through technological progress. • Environmental issues will be resolved mainly through individuals voluntarily changing their behavior.	Response options for each: • Strongly disagree • Disagree • Neither agree nor disagree • Agree • Strongly agree • Don't know / prefer not to answer
Q26 Would you adjust your lifestyle if it helped to tackle climate change?	• Yes, I already do • Yes, I plan on doing so • Yes, but only if others do so too • No, I don't have the money • No, I don't have time • No, an individual has no impact	
Q27 How familiar are you with the following terms?	• Just transition • Emissions trading • Carbon tax • Carbon footprint • Carbon sink • Climate change adaptation • Climate change mitigation • Greenhouse gas emissions • Carbon offset	Response options for each: • Not at all familiar • Slightly familiar • Somewhat familiar • Quite familiar • Very familiar

Questions	Details	Response Options
Q28 How much would each of the following actions reduce someone's impact on climate change? Please choose up to five actions you think are most effective.	▫ **Switching from petrol/diesel to an electric car** ▫ **Public transport instead of a petrol/diesel car for commuting** ▫ **Switching to a heat pump for heating** ▫ **Improving home insulation** ▫ **Planting a tree** ▫ **Train instead of plane for vacation** ▫ **Turning off lights** ▫ **Unplugging appliances** ▫ **Buying organic food** ▫ **Buying local food** ▫ **Switching to a vegetarian diet** ▫ **Buying fewer clothes** ▫ **Installing solar panels on your roof**	
Q29 Please indicate whether you are in favor or against the following climate change policies.	• **Increasing food prices to support agro-ecological production methods** • **Organizing information campaigns for consumers about climate impacts of different types of food.** • **Organizing information campaigns for producers and consumers on how to reduce food waste.** • **Setting stronger targets for emissions reductions in the agricultural sector.** • **Increasing taxes on meat and dairy products that have a high impact on climate change.** • **Providing financial assistance to farmers who reduce their emissions.** • **Providing public funding for research and innovation in agriculture.**	**Response options for each:** • **Completely against** • **Somewhat against** • **Neither in favor nor against** • **Somewhat in favor** • **Completely in favor**

Q30 In the following, you are presented with a scenario. Please read the scenario and indicate your preferred option. **Scenario A** Imagine you own a home in a neighborhood where many of your neighbors have taken proactive steps to reduce their climate impact. Some have installed solar panels on their roofs, while others have insulated their homes. Additionally, there's a neighborhood proposal for the municipality to plant trees along the streets to improve air quality and provide shade. Assuming that you have the personal, financial means to make investments to reduce your climate impact which option below do you choose? [50% of the sample received Scenario A] **Scenario B** Imagine you own a home in a neighborhood where none of your neighbors are taking steps to reduce their climate impact (e.g. no solar panels on roofs, no home insulation improvements). Most people continue with their usual routines, relying on the state or businesses to take climate action instead. As you observe the lack of action in your neighborhood, and assuming that you have the personal, financial means to make investments to reduce your climate impact, which option below do you choose? [50% of the sample received Scenario B]	• **I would invest in home improvements to reduce my climate impact like my neighbors.** • **I would prefer to maintain my current habits and not invest in any changes.** **I would invest in home improvements to reduce my climate impact, despite my neighbors' attitudes.** • **I would prefer to maintain my current habits and not invest in any changes.**	
Q31 How do you expect climate change (e.g. rising average temperatures, changes in extreme weather events) or other environmental issues to impact the following? [For 50% of the sample the order of Q30 and Q31 was reversed]	• **Your job security** • **Your health** • **Miscellaneous aspects of your quality of life (e.g. leisure activities, living environment)** • **The quality of life of younger generations (e.g. your children or grandchildren)**	**Response options for each:** • **Very negatively** • **Negatively** • **No impact** • **Positively** • **Very positively** • **Don't know/not applicable**

Youth questionnaire

Questions	Details	Response Options
Sociodemographic		
Q1 What year were you born?	**[Drop down menu of years]**	
Q2 What is your gender?	• **Male** • **Female** • **Prefer not to say**	
Q3 What is your nationality? Check all that apply.	▫ **Luxembourgish** ▫ **Belgian** ▫ **French** ▫ **German** ▫ **Portuguese** ▫ **Other in the European Union** ▫ **Other outside the European Union**	
Q4 Are you currently in school or at university?	**A. No** **B. Yes, in secondary school** **C. Yes, in continuous vocational training (formation professionelle continue)** **D. Yes, at university for a Bachelor's degree or equivalent** **E. Yes, at university for a Master's degree or equivalent**	
Q5 Have you ever been in secondary school? [ASK IF Q4 = A]	• **Yes** • **No**	
Q6 What kind of school are you at? [ASK IF Q4 = B]	• **General secondary education (enseignement secondaire general - ESG)** • **Classical secondary education (enseignement secondaire classique - ESC)** • **Secondary school with international baccalaureate** • **Secondary school with European baccalaureate** • **Private school or other international school** • **A school outside of Luxembourg** • **Other**	

Q6A What kind of school did you go to? [ASK IF Q4 =C/D/E]	• **General secondary education (enseignement secondaire general - ESG)** • **Classical secondary education (enseignement secondaire classique - ESC)** • **Secondary school with international baccalaureate** • **Secondary school with European baccalaureate** • **Private school or other international school** • **A school outside of Luxembourg** • **Other**	
Q7 Here is a list of qualities that children can be encouraged to learn at home. Which do you consider to be especially important? Please choose up to five	▫ **Good manners** ▫ **Independence** ▫ **Hard work** ▫ **Feeling of responsibility** ▫ **Imagination** ▫ **Tolerance and respect for other people** ▫ **Thrift, saving money and things** ▫ **Determination, perseverance** ▫ **Religious faith** ▫ **Not being selfish (unselfishness)** ▫ **Obedience** ▫ **None of the above**	
Q8 Which of these descriptions comes closest to how you feel about your household's income nowadays?	• **Living comfortably on present income** • **Managing on present income** • **Finding it difficult on present income** • **Finding it very difficult on present income** • **I don't know**	
Q9 Where do you live?	**[Drop down menu of LU Communes]**	

Questions	Details	Response Options
Climate Literacy		
Q10 Please select your most preferred information sources when it comes to environmental issues. [choose up to 3]	▫ **Scientists** ▫ **National government** ▫ **Local government** ▫ **International organizations (e.g. United Nations, OECD)** ▫ **Non-governmental organizations (NGOs, e.g. WWF, Greenpeace)** ▫ **Companies** ▫ **Politicians** ▫ **Media (Newspapers, TV, etc.)** ▫ **Social media** ▫ **Family, friends, and neighbors** ▫ **I do not seek information on environmental issues**	
Q11 How often do you read or hear about climate change via your preferred news source?	• **Every day** • **Several times a week** • **Several times a month** • **Several times a year** • **Once a year** • **Never**	
Q12 How important are each of the following issues to you personally?	• **Climate change (e.g. rising average temperatures, extreme weather events) or other environmental issues (e.g. pollution)** • **Public health issues (e.g. the COVID-19 pandemic)** • **Inequality and discrimination (e.g. racial or gender-based)** • **Economic concerns (e.g. unemployment, price growth, poverty)** • **Political tensions (e.g. polarization) or political violence (e.g. war)** • **Personal safety (e.g. crime, theft, gender-based violence)**	**Response options for each:** • **not at all important** • **not important** • **indifferent** • **important** • **very important** • **prefer not to say**

Q13 When you hear the phrase "climate change," which of the following comes to mind?	• Seasonal changes in weather that occur every year • More extreme weather events and a rise in average world temperatures resulting from human activity • Neither / Something else • Don't know	
Q14 How much do you know about climate change?	• I do not know anything about climate change • I have heard about climate change, but I cannot explain what it is • I have heard about climate change, and I can explain the broad principles only • I know a lot about climate change, and I can explain it well	

Questions	Details	Response Options
Climate change in schools [currently in secondary school / no longer in secondary school]		
Q15 Which of the following activities do you do at school to learn about climate change? Please select all that apply. **Q15 A Which of the following activities did you do at school to learn about climate change?** Please select all that apply.	▫ **Posters, graphs, paintings** ▫ **Projects** ▫ **Writing (about feelings)** ▫ **Outside classroom learning** ▫ **Debating** ▫ **Collaboration with local community and experts** ▫ **Field trips** ▫ **None of these**	
Q16 Who leads climate change activities in your school? **Q16A Who led climate change activities in your school?**	• **Teachers** • **School principal or leadership** • **School administrative staff** • **Parent associations** • **Students and student organizations** • **Person not known** • **No one**	
Q17 Where do you learn the most about climate change, environment, or sustainability topics? [choose up to 3] **Q17A Where did you learn the most about climate change, environment, or sustainability topics?** [choose up to 3]	▫ **In the regular school curriculum (in class)** ▫ **In special events or special sessions at school** ▫ **In educational settings outside of school: maison relais, Jugendhaus, clubs, camps** ▫ **On social media** ▫ **From the news media** ▫ **From friends and family** ▫ **Podcasts** ▫ **Other (specify):**	**Response options for each:** • **not at all important** • **not important** • **indifferent** • **important** • **very important** • **prefer not to say**
Q18 To what extent are the following subjects covered in the regular school curriculum? **Q18A To what extent were the following subjects covered in the regular school curriculum?**	• **Climate change science** • **Carbon footprint** • **Decarbonization** • **Renewable energy sources** • **Nature conservation** • **Sustainable living practices** • **Environmental activism and advocacy** • **Climate mitigation strategies** • **Climate adaptation strategies**	**Response options for each:** **Not at all** **Very little** **Somewhat** **To a great extent**

Future		
Q19 How prepared do you feel to deal with climate change based on what you learned at school?	• Very well prepared • Somewhat well prepared • Not that well prepared • Not at all well prepared	
Q20 In which sector or industry do you envision building your career in the future?	• Government • Leisure and hospitality • Finance/Insurance/Economics • Agriculture, fisheries, or forestry • Transportation • Manufacturing/Construction • Information technologies and communication • Education/Research • Health/Social services • Wholesale or retail trade • Justice • Other sector • Not applicable/I am not sure	

Questions	Details	Response Options
Transportation [currently in secondary school / no longer in secondary school]		
Q21 What is your most used mode of transport?	• **Car** • **Motorcycle** • **Public transport** • **Bicycle** • **By foot** • **Other**	
Q22 How often do you use public transport?	• **Daily** • **Several times a week** • **Weekly** • **Monthly** • **Rarely** • **Never**	
Q23 What are the three most important factors that would motivate you to take public transportation more frequently? [choose up to three] [ASK IF Q22 ≠ " Daily"] **Q23A What are the three most important factors that motivated you to take public transportation frequently?** [choose up to three] [ASK IF Q22 = " Daily"]	▫ **Close public transport stop** ▫ **Frequent service** ▫ **Direct service (few required changes/transfers)** ▫ **Extensive network** ▫ **Short journey time** ▫ **Reduced climate impact** ▫ **Setting an example for others** ▫ **Following the trend of others who use public transport** ▫ **Comfort (clean, not crowded)** ▫ **Safety (reduced crime and accidents)** ▫ **Do not have access to a car (Q23A)**	
Q24 How often do you use a bicycle?	• **Several times a week** • **Weekly** • **Monthly** • **Rarely** • **Never**	

Q25 What are the three most important factors that would motivate you to use a bicycle more frequently? [Choose up to three] [ASK IF Q22 ≠ " Daily"] **Q25A What are the three most important factors that motivated you to use a bicycle frequently?** [Choose up to three] [ASK IF Q22 = "Daily"]	▫ **Large network of separate bicycle lanes** ▫ **Secure bicycle parking** ▫ **Short journey time** ▫ **Shower facilities at destination** ▫ **Reduced climate impact** ▫ **Setting an example for others** ▫ **Following trends of others who cycle** ▫ **Staying fit** ▫ **Weather** ▫ **Bicycle purchase support schemes** ▫ **Low cost** ▫ **Bicycle repair training**	

Questions	Details	Response Options
Climate Beliefs and Attitudes		
Q26 To what extent do you agree with the following statements about climate change?	• Recent climate change is scientifically proven and primarily caused by human activity. • I am worried about climate change. • Slowing down climate change is urgent. • The Luxembourg government should do more to slow down climate change. • The European Union should do more to slow down climate change. • Businesses and large corporations should do more to slow down climate change. • Individuals should do more to slow down climate change. • Climate change can no longer be stopped. • Measures to slow down climate change will improve Luxembourgers' well-being. • Measures to slow down climate change will increase inequality between different households in Luxembourg.	**Response options for each:** • Completely disagree • Somewhat disagree • Neither agree nor disagree • Somewhat agree • Completely agree

Q25 To what extent do you agree with the following statements?	• **Environmental impacts are frequently overstated.** • **I am willing to make changes in my current lifestyle for the benefit of the environment.** • **Protecting the environment can boost the economy.** • **Environmental issues should be dealt with primarily by future generations.** • **Environmental issues should be resolved mainly through public policies.** • **Environmental policies introduced by the government should not cost me extra money.** • **Environmental issues will be resolved mainly through technological progress.** • **Environmental issues will be resolved mainly through individuals voluntarily changing their behavior.**	**Response options for each:** **Strongly disagree** **Disagree** **Neither agree nor disagree** **Agree** **Strongly agree** **Don't know / prefer not to answer**
Q17 Where do you learn the most about climate change, environment, or sustainability topics? [choose up to 3] **Q17A Where did you learn the most about climate change, environment, or sustainability topics?** [choose up to 3]	• **In the regular school curriculum (in class)** • **In special events or special sessions at school** • **In educational settings outside of school: maison relais, Jugendhaus, clubs, camps** • **On social media** • **From the news media** • **From friends and family** • **Podcasts** • **Other (specify):**	**Response options for each:** • **not at all important** • **not important** • **indifferent** • **important** • **very important** • **prefer not to say**

Questions	Details	Response Options
Q30 How much would each of the following actions reduce someone's impact on climate change? Please choose up to five actions you think are most effective.	▫ **Switching from petrol/diesel to an electric car** ▫ **Public transport instead of a petrol/diesel car for commuting** ▫ **Recycling** ▫ **Switching to a heat pump for heating** ▫ **Improving home insulation** ▫ **Planting a tree** ▫ **Train instead of plane for vacation** ▫ **Turning off lights** ▫ **Unplugging appliances** ▫ **Buying organic food** ▫ **Buying local food** ▫ **Switching to a vegetarian diet** ▫ **Buying fewer clothes** ▫ **Installing solar panels on your roof**	
Q31 Please indicate whether you are in favor or against the following climate change policies.	• **Increasing food prices to support agro-ecological production methods** • **Organizing information campaigns for consumers about climate impacts of different types of food.** • **Organizing information campaigns for producers and consumers on how to reduce food waste.** • **Setting stronger targets for emissions reductions in the agricultural sector.** • **Increasing taxes on meat and dairy products that have a high impact on climate change.** • **Providing financial assistance to farmers who reduce their emissions.** • **Providing public funding for research and innovation in agriculture.**	**Response options for each:** • **Completely against** • **Somewhat against** • **Neither in favor nor against** • **Somewhat in favor** • **Completely in favor**

Q32 In the following, you are presented with a scenario. Please read the scenario and indicate your preferred option. **Scenario A** Imagine that many of your peers are actively engaged in youth-led climate action initiatives. Some organize community events, while others participate in protests advocating for climate policy reforms. Additionally, there's a proposal for the municipality to implement bike lanes and improve public transportation to reduce emissions. Assuming that you have the time and personal, financial means to support climate action efforts, which option below do you choose? [50% of the sample received scenario A]	• **would actively engage in climate action efforts like my peers.** • **I would prefer to maintain my current habits and not make any changes.**	
Q32 In the following, you are presented with a scenario. Please read the scenario and indicate your preferred option. **Scenario B** None of your peers are actively engaged in climate action initiatives. Most young people continue with their usual routines, leaving climate activism to others. As you observe the lack of engagement among your peers, and assuming that you have the time and personal, financial means to support climate action efforts, which option below do you choose? [50% of the sample received Scenario B]	• **I would actively engage in climate action efforts, despite my peers' attitude.** • **I would prefer to maintain my current habits and not make any changes.**	

Questions	Details	Response Options
Q33 How do you expect climate change (e.g. rising average temperatures, changes in extreme weather events) or other environmental issues to impact the following? [For 50% of the sample the order of Q32 and Q33 was reversed]	• **Your job and career plans** • **Your health** • **Miscellaneous aspects of your quality of life (e.g. leisure activities, living environment)** • **The quality of life of younger generations (e.g. your children or grandchildren)**	**Response options for each:** • **Very negatively** • **Negatively** • **No impact** • **Positively** • **Very positively** • **Don't know/not applicable**