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# Young people in Finland and Belgium and the ecological impact of global warming on their chosen mode of transport

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Title of publication: Young people in Finland and Belgium and the ecological impact of global warming on their chosen mode of transport

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The objective of the thesis was to

The main objective of the thesis was for the author to find out the attitudes and perspectives of young Belgians and Finns with regard to climate change and the transport methods they use. The author had the opportunity to spend 1 year in Finland and learn about a new culture which motivated him to make a comparison between Finnish and Belgian youth.

Before embarking on the practical side, the author had to do some theoretical research to better understand the problem of global warming in the transport sector. He had to find information about Belgium and Finland. This enabled him to continue discovering Finnish and Belgian culture.

The author was able to compare the habits and outlook of young Belgians and Finns. To obtain accurate answers, the author carried out 2 identical surveys with the same target group: the first survey was for young Belgians and the second survey was for young Finns. This survey was carried out using google forms and sent via the author's social networks (Instagram, messenger).

It is important to continue the fight against global warming, young people around the world are the key players in this fight. Governments need to put more measures in place, because young people are ready to apply them so that they can take part of this problem, which has only just begun.

Keywords:

eco-friendly Transportation, global warming, communication mix, survey, quantitative research, habits

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### 1 INTRODUCTION

The ecological impact of climate change has become an urgent concern in Europe and worldwide, prompting individuals and societies to reassess their choices and behaviours. As the consequences of climate change continue to manifest, it is evident that urgent action is necessary to mitigate its effects. Among those affected by climate change are the youth, who not only face long-term consequences but also play a crucial role in shaping the future of sustainable transportation. Air pollution causes over 1,200 premature deaths among young people under the age of 18 in Europe and increases the risks of later-life diseases (Bruyninckx, 2023).

This thesis focuses on the relationship between the youth in Finland and Belgium and the ecological impact of climate change on the mode of transport they have chosen. These two countries provide case studies, representing different regions of Europe with varied climates, transportation infrastructures, and cultural contexts. We can observe that the youth in these two countries are actively involved in the cause, particularly through organized protests in their respective countries. In Brussels, over 35,000 young people took to the streets to protest (Le soir, 2019), and across Finland, numerous schools went on strike to support Greta Thunberg in implementing new measures to combat climate change (Cord, 2019).

Both in Belgium and Finland, governments have implemented various initiatives aimed at improving greenhouse gas emissions in the transportation sector. In order to promote more sustainable and environmentally-friendly modes of transportation, numerous public transportation options have been developed and strengthened. The Finnish government aims to achieve carbon neutrality by 2035 (OECD, 2021). Efficient and extensive bus and tram networks have been established in major cities, offering practical alternatives to private car use for young people and the general population. Furthermore, significant investments have been made to modernize railway infrastructure, enabling faster, more frequent, and more reliable train journeys. (Bx1, 2023). These measures encourage young people to choose more environmentally-friendly collective modes of transportation. (OpenAI, 2023)

### 2 PROBLEM SETTING AND CONCEPTUAL FRAMEWORK

Before starting the thesis, the author asked himself some questions which he will answer during the thesis.

- 1. What are young people's attitudes to global warming?
- 2. What method of transport do young people use most?
- 3. what are the actions of young people to cause less environmental damage?

Global warming, as a result of the accumulation of greenhouse gases in the atmosphere, is one of the most pressing challenges of our time. The potentially devastating consequences of this phenomenon affect all areas of life and influence our choices, particularly our choices of mode of transport. In fact, carbon dioxide (CO2) emissions, mainly from the transport sector, are among the top 5 most polluting sectors. Worldwide, transportation accounts for roughly 20% of greenhouse gas emissions. Approximately 40% of these emissions stem from the movement of goods, with the remaining 60% originating from fellow traveler, primarily driven by air travel (Climatetrade, 2023).

In Finland and Belgium, governments have recognised the urgency of the situation and have adopted measures to mitigate the adverse effects of global warming on the transport sector. Belgium, as a member of the European Union , has been strongly influenced by EU policies and commitments to reduce greenhouse gas emissions. The Belgian government has implemented policies to encourage the use of public transport, car sharing and more sustainable modes of transport such as cycling and walking. For example, the freight transport strategy is undergoing major change. Companies are aiming to switch from road to sea or rail transport. "Belgium's o bjective is to reduce emissions from the transport sector to 0 by 2050, for both personal and freight transport" (Vlaamse overheid 2020 p 6).

Finland,is renowned for its commitment to clean technologies and its innovative approach to sustainability. The Finnish government has invested in the research and development of low-emission vehicles and green mobility solutions. Tax incentives encourage the purchase of electric cars, and initiatives to improve public transport and develop bicycle infrastructure have been launched. The Finnish government is putting

in place measures to meet emission targets and to achieve carbon neutrality by 2035, with a view to becoming carbon neutral (treasuryfinland, 2023)

Despite these efforts, the challenge is huge. Cultural travel habits and existing infrastructure represent obstacles to be overcome. Young people, as key players in tomorrow's society, play a crucial role in the transition to more environmentally-friendly modes of transport. The author's main objective is to understand how young people in Finland and Belgium perceive the ecological issues involved in choosing their mode of transport and how government measures influence their decisions.

The image below shows the methodology that the author plans to follow in this study. The aim of this research is to analyse the variability of consumer behaviour according to criteria such as age, origin and the influences that shape their choice of transport modes. It is important to note that individual reactions differ according to the social context or environment in which a person finds themselves. Consequently, a comparison will be undertaken to determine the divergences and convergences among the young participants from the Finnish and Belgian populations.

The author began by looking at the phenomenon of global warming and analysing the behaviour of young people aged 16 to 25 from Belgium and Finland. The aim was to explore the initiatives put in place by these young people to raise awareness of the issue. The focus then shifted to a specific area, namely the modes of transport adopted by young Belgians and Finns in their respective countries. Using this data, the author looked at what young people are doing to reduce their country's carbon footprint.

To strengthen the reliability of this study, the author relied on data collected through a survey with targeted questions aimed at young people in Belgium and Finland. (OpenAI, 2023)

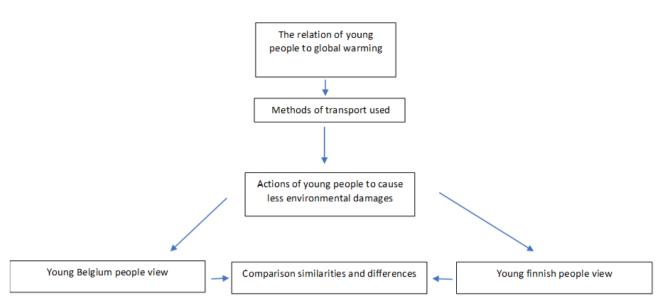


Figure 1. Conceptual framework (Author of thesis 2023)

Following this survey, the author formulated separate conclusions for the two countries. Having carried out all these analyses, an in-depth comparison of the similarities and differences was carried out with the aim of reaching an informed conclusion on the subject.

### **3 GLOBAL WARMING**

Climate change represents one of the most pressing and intricate dilemmas humanity confronts at present. As greenhouse gas concentrations continue to mount in the atmosphere, the Earth's temperatures are on the ascent, yielding catastrophic outcomes for both our planet and its denizens. This disconcerting actuality is substantiated by staggering statistics and robust scientific evidence. (European Environment Agency, 2023)

### 3.1 Increase in global temperatures

In 2022, data from NOAA's temperature records indicate that it marked the sixth warmest year ever documented. The ten hottest years in recorded history have all occurred since 2010. (NOAA, 2023)

While the warming hasn't been distributed uniformly across the globe, the overarching trend reveals that the global average temperature is on the rise, with more regions experiencing warming rather than cooling. As per NOAA's annual climate report for 2021, the combined temperature of land and ocean has increased by an average of 0.14 degrees Fahrenheit (0.08 degrees Celsius) per decade since 1880. Nevertheless, since 1981, the average rate of increase has exceeded twofold, reaching 0.32 degrees Fahrenheit (0.18 degrees Celsius) per decade. (Dahlman & Lindsey 2023).

### GLOBAL AVERAGE SURFACE TEMPERATURE

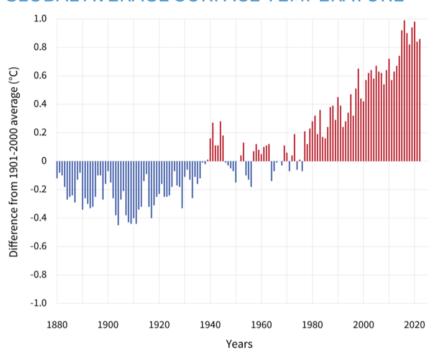


Figure 2. "Yearly surface temperature compared to the 20th-century average from 1880–2022. Blue bars indicate cooler-than-average years; red bars show warmer-than-average years." (NOAA Climate.gov graph, based on data from the National Centers for Environmental Information, 2023)

The magnitude of future global warming hinges on the quantity of carbon dioxide and other greenhouse gases we release over the upcoming decades. "Currently, our actions such as the combustion of fossil fuels and deforestation contribute approximately 11 billion metric tons of carbon (equivalent to slightly more than 40 billion metric tons of carbon dioxide) to the atmosphere annually" (Dahlman & Lindsey 2023). This carbon quantity surpasses what natural processes can eliminate, leading to a yearly elevation in atmospheric carbon dioxide levels. (Dahlman & Lindsey 2023).

### 3.2 Extreme weather events in Europe

Over the past decades, Europe has grappled with frequent and severe meteorological phenomena and climate-related natural hazards. These include droughts, forest fires, heatwaves, storms, and heavy rainfall. The specter of climate change promises to amplify the intensity and frequency of these events. (EEA, 2023)

Extreme temperatures exert not only a toll on the health of vulnerable populations but also disrupt the sleep patterns of the entire populace. The desiccation of rivers and lakes, affecting all forms of life reliant on them, and the increasing aridity of soils contribute to elevated fire risks and diminished agricultural productivity. (EEA, 2023)

Other European regions are contending with deluges of rain, which at times inundate buildings and wreak havoc on property and infrastructure within minutes. Coastal areas face an elevated risk of more frequent storm surges, culminating in the flooding of buildings and agricultural lands. (EEA, 2023)

Wind velocities in Europe are reaching unprecedented levels, causing accidents and substantial material damage. Meanwhile, certain areas are grappling with intense cold waves. (EEA, 2023)

Regrettably, these incidents serve as poignant reminders that the climate is capricious and unstable. Europe must adapt and prepare, all while implementing drastic measures to drastically curtail carbon emissions in order to decelerate and mitigate the progression of climate change. (EEA, 2023)

### 3.3 Transportation

Transport is a vital conduit connecting people, societies and economies around the world, facilitating trade, discovery and access to essential services. Even in remote areas, they promote accessibility and economic growth, improving quality of life and increasing employment opportunities. However, this convenience comes at the cost of the environment and public health. The transport sector accounts for about a quarter of the EU's greenhouse gas emissions and remains a major cause of air pollution, noise and environmental damage. (EEA, 2023)

Maritime transport plays a vital role in European trade and economy but poses major environmental challenges due to emissions, pollution and the spread of invasive species. (EEA, 2023)

Likewise, the growing impacts of climate change, noise pollution and deteriorating air quality are eroding the economic contribution and connectivity of aviation. Despite technological advances and operational improvements, the industry's environmental impact continues to worsen. (EEA, 2023)

Environmental reports, on the other hand, state that rail transport is the greenest form of transport, significantly surpassing air transport in terms of emissions per passenger. A switch from aviation to rail could play a key role in meeting the EU's ambitious emissions reduction targets. (EEA, 2023)

Transport demand in Europe increased by...



Figure 3. Transport demand In Europe increasing (European Environment Agency, 2023)

### 4 YOUNG PEOPLE'S VIEWS ON GLOBAL WARMING

### 4.1 relation of young people to global warming

Today's young people feel a growing sense of urgency and concern about the pressing challenge of global warming. This concern knows no borders, affecting young people all over the world, but is particularly pronounced among those living in developing countries. This generation recognises the seriousness of the situation and is working hard to act accordingly. A study conducted by "the Lancet" shows how concerned young people are about global warming. 10,000 young people aged 16 to 25 were questioned in 10 different countries. More than 70% of the young people surveyed were very concerned about the future of the planet. In developing countries such as the Philippines, 84% of young people said they were worried. The figure was lowest in the United States at 46%. In Europe, in France, just under 60% of young people are worried about this situation. (Buchholz, 2022)

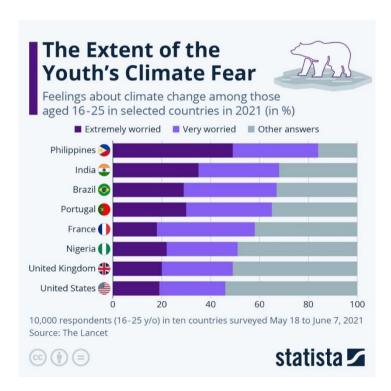


Fig 4. table showing the % of young people worried about global warming by country (The lancet 2021)

Around the world, youth activism is on the rise, in direct response to the call to action issued by the climate crisis. Young people are coming together in groups determined to make their voices heard and trigger rapid and effective responses. Climate strikes, mass demonstrations and awareness-raising campaigns are all tangible proof of their commitment. (Buchholz, 2022)

Among the areas that are increasingly attracting the attention of young people, transport is at the top of the list. Growing environmental awareness has prompted young people to question their travel habits. They are aware of the significant impact of carbon emissions from transport on global warming. As a result, many initiatives are being launched to promote more sustainable alternatives such as car-sharing, cycling, public transport and electric vehicles. However, according to the BVA survey for Maeva.com, 60% of people who do not plan to change their holiday for 2023 as a result of global warming, 86% of respondents say they will change the way they travel to be more environmentally friendly (Pic 2023).

In short, today's young people are not only aware of environmental challenges, they are also determined to tackle them. Their shared concern about global warming transcends borders, and their active engagement is manifested in global movements to raise awareness and take action. Younger generations are assuming their role as defenders of the planet, highlighting key areas such as transport, where concrete changes can make a significant contribution to the fight against climate change. (Buchholz, 2022) (OpenAI, 2023)

### 5 METHODS OF TRANSPORT USED

### 5.1 Belgium

In Belgium, the authorities have introduced cost-effective alternatives to promote public transport and environmentally-friendly means of transport. Among these options, trains occupy a central place as an easy way to travel around the country. For domestic travel, trains are particularly convenient and offer an attractive option. Young people benefit from considerably lower fares than working people, making it easier for them to get around. (BXL, 2023)

In major cities such as Brussels and Antwerp, the tram and metro systems play an essential role in enabling residents and visitors to reach the heart of the city easily. Two bus companies operate in Belgium: STIB in Flanders and Brussels, and TEC in Wallonia. Students can obtain travel cards combining these different modes of transport at very affordable prices. (Expat,2023)

As for more sustainable alternatives, Belgium offers a number of solutions. Electric bikes and scooters are made available by various companies in towns and cities. However, it is important to note that cycling or using an electric scooter in urban centres can be risky due to the density of traffic. (Expat, 2022)

Unfortunately, despite these initiatives, the car remains the most commonly used means of transport in Belgium. However, new regulations have been introduced to favour public transport over the car. Measures such as the introduction of 30 km/h speed limits throughout Brussels are aimed at reducing pollution and making travel more sustainable. In addition, the creation of pedestrian zones in city centres provides a more friendly and safe space for residents and visitors alike. (Expat, 2022)

In short, Belgium is striving to offer affordable and sustainable alternatives for everyday travel. Investments in public transport, electric bikes and scooters, as well as regulations aimed at restricting car use, illustrate the country's efforts to adopt more environmentally-friendly and practical transport solutions for all. (Expat 2022) (OpenAI, 2023)

### 5.2 Finland

In Finland, public transport enjoys considerable popularity, and students benefit from numerous discounts to encourage their use. Despite the sheer size of the country, young people are environmentally responsible and opt overwhelmingly for public transport. In cities such as Helsinki and Tampere, trams and the metro are the preferred means of travel for short journeys, offering a quick and practical solution. (Niemi, 2023)

For longer journeys or trips lasting several hours, buses are very popular due to their affordability. Trains are also very popular, offering not only greater comfort but also picturesque views of the Finnish landscape. (Niemi, 2023)

In the heart of the cities, electric bikes and scooters are made available by various companies, contributing to environmentally-friendly mobility. However, their use is mainly reserved for milder months such as summer and spring, due to the more favourable weather conditions. (Niemi, 2023)

All in all, Finland demonstrates a strong commitment to environmentally friendly transport options. Public transport, electric bicycles and government efforts to support these initiatives demonstrate the country's desire to promote sustainable mobility while meeting the varied needs of its population, while respecting environmental considerations. (Niemi, 2023) (OpenAI, 2023)

### 6 COMMUNICATION MIX

The communication mix, is a coordinated set of communication elements that businesses or governments uses to convey their message, promote their brand, and engage with their target audience. It includes 4 main components: advertising, sales promotion, public relations and direct marketing.

(Vullers S, Marketing & corporate communication p39)

### 6.1 The hierarchy of effects in the classic model

The hierarchy of effects is a marketing model that describes the stages a consumer generally goes through when making a purchasing decision or reacting to an advertising message. It begins with awareness, when the consumer becomes aware of a subject or other information, followed by interest, desire and finally action, when the consumer takes action, for example by using more environmentally-friendly means of transport following a striking advertisement. This model helps marketers to understand and plan their communication strategies in order to move consumers from initial awareness to the final goal of taking action. (Vullers 2021)

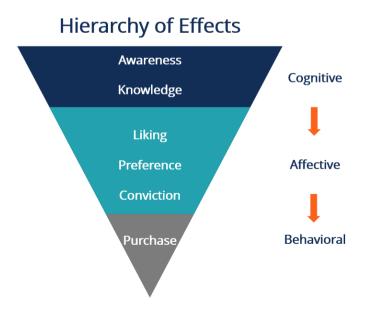


Fig5. Image of the Hierarchy of effects (CFI 2023)

This theory is created to represent the essence of the communication and awareness-raising process aimed at encouraging young people to adopt more environmentally-friendly transport behaviour. (Vullers 2021)

Awareness: The first step is to draw young people's attention to the message or campaign to raise awareness of global warming in the transport sector. This involves getting young people to notice the message via various communication channels, such as social media, posters, public events, etc. (Vullers 2021)

Liking: Once young people are aware of the message, they need to understand it. The message must be clear, informative and accessible, so that young people can grasp the issues surrounding global warming and sustainable transport. (Vullers 2021)

Purchase: Finally, the last stage is action. Once they have understood the message, young people are encouraged to take action. They must take concrete steps to adopt more environmentally-friendly modes of transport, such as walking, cycling, using public transport, etc. (Vullers 2021)

### 6.1.1 Belgium

The Belgian government is highlighting the importance of promoting sustainable modes of transport within companies and local authorities. It is important to provide practical information to employees and the general public, such as public transport timetables, route diversions due to roadworks, the installation of new cycle parking facilities, transport cost reimbursement procedures, etc. The government also encourages the organisation of awareness campaigns and participation in initiatives run by associations or the Brussels-Capital Region to promote sustainable mobility. One of the government's key points is the importance of active and regular communication to reduce solo driving. The government's role in mobility focuses on the dissemination of information through various communication channels to raise awareness among workers and young people of alternatives to the car. (Eco mobilité, 2013)

As far as awareness-raising is concerned, the government is encouraging the diversification of campaigns to promote clean modes of transport and their organisation within companies. It also highlights the possibility of taking part in promotional campaigns organised by the Region or other mobility stakeholders. The government also mentions the importance of raising awareness among new employees as soon as they arrive.

Ultimately, the government stresses the importance of ongoing communication, innovation in awareness-raising campaigns and the active involvement of the company in promoting sustainable modes of transport for its employees. (Eco mobilité, 2013) (OpenAI, 2023)

### 6.1.2 Finland

Finland, like many other countries keen to promote sustainable mobility, has put in place various communication strategies to raise awareness among young people of the use of environmentally-friendly transport. These initiatives aim to encourage a change in behaviour among the younger generation by highlighting the advantages of environmentally-friendly modes of transport. (Ministry of the environment, 2022)

First of all, there are the online awareness campaigns. Social networks have become a powerful tool for raising awareness. Finland is using these platforms to share hard-hitting messages about the benefits of environmentally-friendly transport. Dedicated websites also provide practical information on how to adopt these modes of transport, offering advice on choosing an electric bike, making efficient use of public transport and the benefits of car-sharing. Captivating viral videos posted online reach a wide audience, while online influencers share their positive experiences of sustainable mobility. New ecological and technological modes of transport are being introduced in Finland thanks to the latest communications technology. (OECD, 2021)

Secondly, local events play a key role in raising awareness among young people. In Finland, workshops, fairs, conferences and special events are organised to enable young people to experiment with different sustainable modes of transport. Young people can test electric bikes, discover the advantages of public transport and learn about the benefits of car-sharing. These events are interactive and allow young people to become actively involved in the process of adopting environmentally-friendly modes of transport. (Salto, 2023)

Thirdly, partnerships with schools and universities are put in place. Finland works closely with educational establishments, integrating programmes to raise awareness of sustainable mobility into school and university curricula. These educational programmes provide pupils and students with the knowledge and skills they need to choose environmentally friendly modes of transport. In addition, these partnerships actively encourage young people to adopt these modes of transport in their daily lives. Overall, Finland is striving to create a favourable environment for young people to adopt eco-friendly transport by combining attractive online campaigns, interactive local events, educational partnerships and positive communication focusing on the benefits. This comprehensive approach aims to encourage young people to make more environmentally-friendly mobility choices and thus contribute to preserving the planet. (Cord 2019) (OpenAI, 2023)

### 7 METHODOLOGY

### 7.1 Research design

The author decided to conduct a study that could help him better understand the perspectives and opinions of fellow young people from Belgium and Finland regarding the impact of climate change on their choice of transportation. Conducting a study will enable the author to obtain answers to her questions through direct communication with primary information. "Primary data consists of information collected specifically for the purpose in question" (Armstrong & Kotler, 2021 p58). Certain authors view research design as the decision between qualitative and quantitative research approaches. Meanwhile, some contend that research design encompasses the selection of particular data collection and analysis methods. Research design is also framed as an overarching blueprint for executing a research project, which seems to be the most accurate interpretation of the term. (Dudovskiy 2023).

Throughout the thesis, the author used ChatGPT to translate internet texts and to write his ideas in a more sustained way.

### 7.2 Research method

Quantitative research is the chosen research approach, focusing on the collection of numerical and measurable data. It is preferred for analysing surveys because of its ability to provide reliable and accurate information. This method is based on the use of closed questionnaires, which makes it possible to obtain quantifiable results. With this survey, the author will be able to conduct in-depth analyses in order to identify trends and draw solid conclusions (Vullers, 2021) (OpenAI, 2023).

### 7.3 Target/sample

"A sample is a selected segment of the population that represents the whole population. 3 decisions are made when setting up the sample: who will be studied, how many people will make up the sample and how the people will be chosen." (Armstrong & Kotler, 2021 p 61)

The study will focus on young people aged between 18 and 26. The author has chosen this age group to target students. These respondents will come from Belgium and Finland as the author studied in Finland and lives in Belgium. The survey was sent via a link on the author's social networks. The survey is anonymous for all respondents (Kenton, 2022)

### 7.4 The survey

The author of the study designed the questionnaire using closed-ended questions, which require multiple-choice responses (Armstrong and Kotler 2021 p 61). These questions were thoughtfully crafted to be clear and understandable, making it easier for respondents. Additionally, an introduction was included at the beginning of the survey to provide context for the readers. To gather relevant data, the author distributed the survey on social media platforms like Instagram and Messenger.

Through these efforts, the author successfully obtained a sample of 41 responses from Finland and 41 responses from Belgians, ensuring a significant database for the study's analysis.

### 7.5 Data collection

The author chose to use Google Forms for the survey because it's simple and user-friendly. This decision was based on the platform's ease of use for both the author and the survey respondents. Google Forms also made it easy to visually collect information through colourful charts and graphs. It is always advisable to use coloured graphs when analysing data. (Vullers, 2021).

### 8 RESEARCH FINDINGS

The author carried out a comparative survey of Belgian and Finnish students, the author gathered data regarding the demographic composition of the respondents. Concerning Belgian students, the survey garnered a response rate of 53.7% males and 46.3% females (figure 6). Regarding the age distribution, the research indicated that 24.4% of respondents were aged 18-20, 48.8% fell in the 21-23 age group, while 26.8% were aged between 24 and 26 (see figure 7).

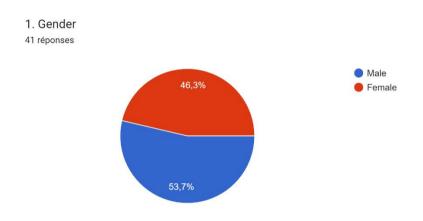


Figure 6. Question 1 : Gender of the responders (Belgians)

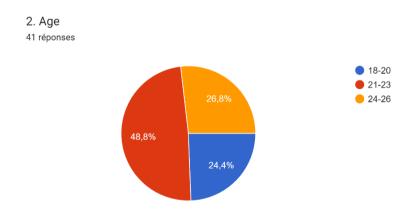


Figure 7. Question 2 : Age of de responders (Belgians)

Among the young Finnish counterparts, the results are very similar. The author obtained exactly the same percentage of males 53.7% and females 46.3% among the respondents (see figure 8). However, it is noteworthy that the age groups differ slightly, with only 9.8% of respondents aged 18-20, 56.1% falling in the 21-23 age bracket, and 34.1% in the 24-26 age range (see figure 9)

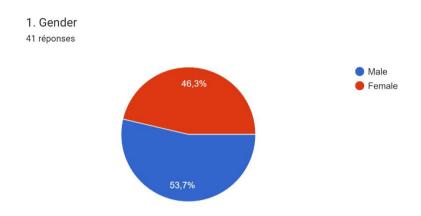


Figure 8. Question 1 : Gender of the responders (Finns)

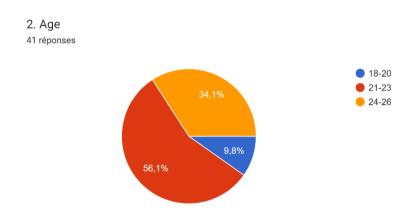


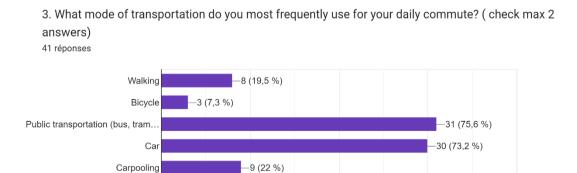
Figure 9. Question 2: Age of the responders (Finns)

It's worth noting that among Finnish students, respondents appear to be slightly older on average, which may have an impact on the forthcoming questions. This demographic difference warrants particular attention to analyse responses to other survey questions, as students' perspectives and opinions can vary based on their age and experiences.

In figure 10 and 11 it can be seen that: In the Belgian survey, we observe a significant reliance on public transportation, with 75.6% of respondents using it regularly. Cars also remain a popular mode of transportation among Belgian youth, with 73.2% indicating its usage. On the other hand, bicycles and scooters are less favoured, with both modes of transport falling below 10% in usage. Walking and car-sharing are used to a moderate extent, at around 20%.

In contrast, Finnish students demonstrate a more varied approach to transportation. Notably, electric scooters have not gained popularity among this group with 0 %. Walking is more prevalent, with 46.3% of respondents preferring it over other modes of transportation. Public transportation also remains a primary choice, but with a slightly lower percentage (63.4%) compared to the Belgian students. Bicycles are used more frequently in Finland, with 26.8% of respondents favoring them. Car-sharing is not as common, with only 14.6% indicating its usage.

These results highlight some distinctions in transportation preferences between Belgian and Finnish students. While Belgian students lean towards public transportation and car usage, Finnish students show a stronger inclination for walking and a more diverse range of transportation methods.



**-2** (4,9 %)

Other 0 (0 %)

Electric scooter

Figure 10. Question 3: What mode of transportation do you most frequently use for your daily commute? (Belgians)

3. What mode of transportation do you most frequently use for your daily commute? ( check max 2 answers)
41 réponses

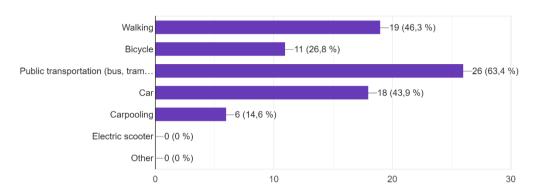


Figure 11. Question 3: What mode of transportation do you most frequently use for your daily commute? (Finns)

Analysing figures 12 and 13, the Author discern the primary factors influencing Belgian and Finnish respondents in their choice of transportation. In Belgium, 5% of students indicated that the environment is the primary factor motivating their transportation choices. Furthermore, 17.1% cited their habits, and 14.6% mentioned the cost of transportation. However, the most prominent factor that emerged was speed, with a substantial 61% of respondents prioritizing it.

Conversely, Finnish students exhibit a more balanced distribution of key factors. A total of 48.8% responded that speed was their primary consideration, while 24.4% emphasized the environment. Their habits accounted for 14.6%, and a minority mentioned cost, also at 14.6%.

The surveys reveal notable distinctions between Belgian and Finnish students in their transportation-related priorities. Belgian students overwhelmingly prioritize speed, while Finnish students demonstrate a more diverse range of primary considerations, including environmental concerns, habits, and speed.

4. What is the most significant factor influencing your choice of transportation?

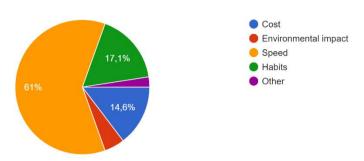


Figure 12. Question 4: What is the most significant factor influencing your choice of transportation? (Belgians)

4. What is the most significant factor influencing your choice of transportation? 41 réponses

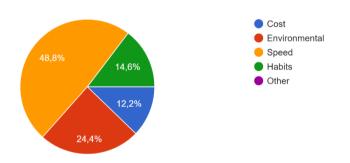
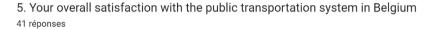


Figure 13. Question 4: What is the most significant factor influencing your choice of transportation? (Finns)

In figure 14 and 15, the author has evaluated the satisfaction levels of young Belgians and Finns regarding public transportation, using a scale from 1 (not at all satisfied) to 10 (very satisfied). In the case of Belgium, the percentage of respondents who rated their satisfaction between 4 and 6 out of 10 falls below 10%. The 7/10 and 8/10 ratings are relatively close, with 24.4% and 26.8% respectively. Surprisingly, the highest level of satisfaction, at 31.7%, was achieved with a 9/10 rating, indicating that most Belgians are quite content with their public transportation experiences. This aligns with the substantial usage of public transport in Belgium.

On the other hand, Finnish results reveal a different pattern. Only 2.4% of respondents rated their satisfaction between 2 and 4 out of 10, while 4.9% were at 5/10. A notable increase is observed with 19.5% and 17.1% of respondents giving satisfaction ratings of 6/10 and 8/10, respectively. Just below 10%, students are more satisfied, with 9/10 ratings. Finally, the majority of respondents, at 41.5%, rated their satisfaction at 7/10.

These results illustrate distinct satisfaction levels in public transportation experiences between Belgian and Finnish students. Belgians predominantly report higher satisfaction levels, with most respondents giving a 9/10 rating, reflecting a contented public transportation user base. In contrast, Finnish students display a more varied range of satisfaction levels, with the highest proportion of respondents rating their experience at 7/10.



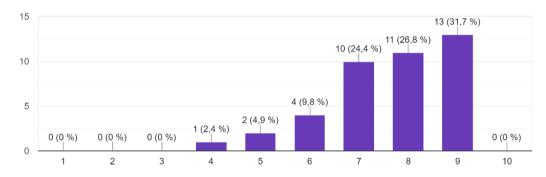


Figure 14. Question 5: Your overall satisfaction with the public transportation system in Belgium (Belgians)

# 5. Your overall satisfaction with the public transportation system in Finland $_{\rm 41\,réponses}$

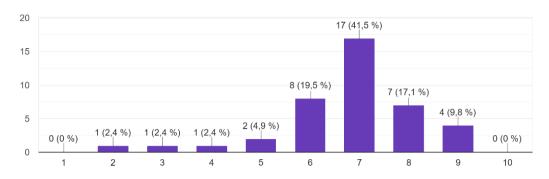


Figure 15. Question 5: Your overall satisfaction with the public transportation system in Belgium (Finns)

In figures 16 and 17, the author delves into the behavior of students by examining the influence of climate change on their transportation choices. Among young Belgians, 73.2% of respondents stated that climate change occasionally impacts their transportation decisions. 9.8% mentioned that climate change consistently influences their choice of transportation, while 17.1% claimed they have never adapted their transportation choices due to climate change.

In Finland, the author observes a slight difference. Here, 65.9% of respondents indicated that climate change occasionally affects their transportation decisions, and 22% stated that it consistently influences their mode of transportation. Only 12.2% mentioned they have never altered their transportation choices due to climate change.

These results reveal a similar trend in both countries, with a majority of respondents acknowledging the influence of climate change on their transportation decisions. However, Belgians appear to be more inclined to adjust their transportation choices based on climate change compared to the Finnish respondents. These findings suggest that awareness and environmental concerns may play a more significant role in transportation decisions in Belgium than in Finland.

6. Does climate change influence your choice of transportation?
41 réponses

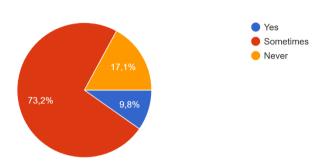


Fig 16. Question 6 : Does climate change influence your choice of transportations? (Belgians)

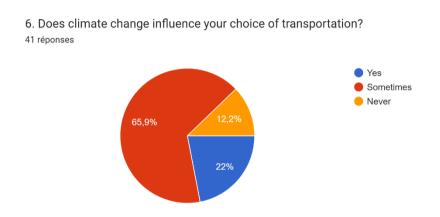
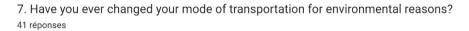


Fig 17. Question 6: : Does climate change influence your choice of transportations? (Finns)

In figures 18 and 19, the author explores whether respondents have ever changed their mode of transportation for environmental reasons. In the Belgian survey, 63.4% of people responded that they have never changed their transportation for environmental reasons, which means that 36.6% have indeed altered their transportation mode due to environmental considerations.

In the Finnish responses, there isn't a significant difference. 68.3% have never changed their transportation for environmental reasons, with 31.7% indicating that they have. Comparing the figures from both surveys, we can see a similar trend, with a slightly higher percentage of Belgian respondents having made changes in their transportation

mode for environmental reasons (36.6%) compared to the Finnish respondents (31.7%). This suggests that in both countries, a substantial proportion of people has already adjusted their transportation choices in response to environmental concerns, though the differences are not significant.



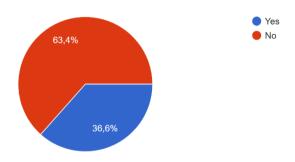
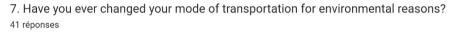


Figure 18. Question 7: Have you ever changed your mode of transportation for environmental reasons (Belgians)



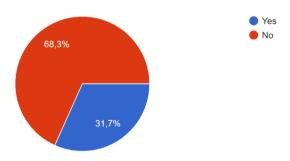


Figure 19. Question 7: Have you ever changed your mode of transportation for environmental reasons (Finns)

In figures 20 and 21, the author explores the willingness of Belgians and Finns to pay extra for the use of more environmentally friendly modes of transportation. In the Belgian survey, only 41.5% of young individuals are willing to pay more to opt for a greener mode of transportation. This figure is quite low in comparison to the Finnish respondents, where a substantial 70.7% of people are ready to invest additional funds in more environmentally friendly public transportation.

These results highlight a significant disparity in attitudes towards the cost associated with environmentally friendly transportation between the two groups. The Finns appear to be much more inclined to financially invest in eco-friendly transport options, while Belgians are more hesitant to do so.

8. Would you be willing to pay more for a more environmentally friendly mode of transportation? 41 réponses

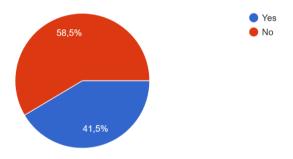


Figure 20. Question 8: Would you be willing to pay more for a more environmentally friendly mode of transportation? (Belgians)

8. Would you be willing to pay more for a more environmentally friendly mode of transportation? 41 réponses

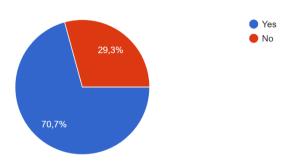


Figure 21. Question 8: Would you willing to pay more for a more environmentally friendly mode of transportation? (Finns)

In figures 22 and 23, the author examined whether young Belgians and Finns are aware of their government's initiatives to promote eco-friendly modes of transportation. The results indicate that, on both the Belgian and Finnish sides, the majority of young individuals are not aware of these initiatives. In Belgium, this figure stands at 65.9%, while in Finland, it reaches 82.9%.

These numbers reveal a significant lack of awareness among young people regarding government efforts to promote environmentally friendly transportation options. This highlights the need to enhance communication and information dissemination about these initiatives to raise awareness among the youth about eco-friendly transportation choices and the measures taken by authorities to encourage them.

9. Are you aware of any government initiatives or measures aimed at promoting environmentally friendly modes of transportation?

41 réponses

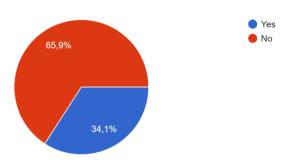


Figure 22. Question 9: Are you aware of any government initiatives or measures aimed at promoting environmentally friendly modes of transportations (Belgians)

9. Are you aware of any government initiatives or measures aimed at promoting environmentally friendly modes of transportation?

41 réponses

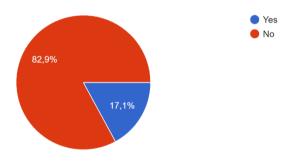


Figure 23. Question 9: Are you aware of any government initiatives or measures aimed at promoting environmentally friendly modes of transportations (Finns)

In figures 24 and 25, the survey results reveal that Belgians and Finns share very similar opinions regarding the necessity for governments to further promote eco-friendly transportation. In both countries, an overwhelming majority supports additional government measures to encourage more environmentally friendly transportation options. Specifically, 95.1% of Belgians and 97.6% of Finns believe that governments should take additional steps in this direction.

These findings underscore an impressive consensus among young Belgians and Finns about the importance of actively promoting eco-friendly transportation modes. They indicate a high level of awareness about the need for sustainable transportation solutions in both countries, and a strong endorsement of government action in this regard.

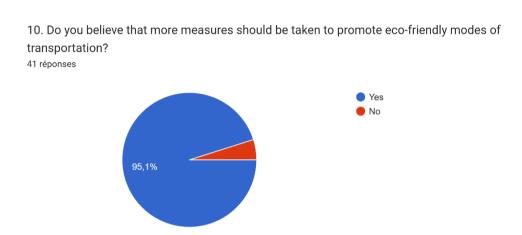


Figure 24. Question 10: Do you believe that more measures should be taken to promote eco-friendly modes of transportation? (Belgians)

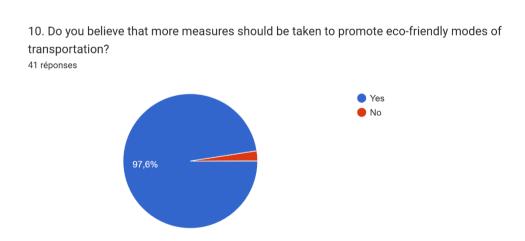


Figure 25. Question 10: Do you believe that more measures should be taken to promote eco-friendly modes of transportation? (Finns)

Finally, the survey provided the author with primary sources and a better understanding of the perspectives and opinions of young Belgians and Finns regarding the ecological impact of their chosen modes of transport. The bottom line is that climate change is having an impact on young people's daily lives, and we must continue to make efforts to treat our planet better.

### 9 SUMMARY AND CONCLUSION

The thesis delves into the crucial issue of climate change and its ecological impact, particularly on young people in Finland and Belgium. The urgency of combating climate change is emphasized, as air pollution resulting from climate change leads to premature deaths among the youth and long-term health risks. Both countries serve as case studies, highlighting their unique transportation infrastructures, cultural contexts, and active involvement of their youth in climate action.

Both nations have taken steps to reduce greenhouse gas emissions in the transportation sector, with Finland aiming for carbon neutrality by 2035 and Belgium aspiring to achieve net-zero emissions by 2050. Public transportation options have been developed in cities, encouraging young people and the general population to adopt more sustainable modes of travel.

The research questions revolve around the attitudes of young people toward global warming, their preferred modes of transportation, and their efforts to minimize their environmental impact. The primary concern is the role of young people in transitioning to environmentally friendly modes of transportation.

To combat climate change, both Finland and Belgium have implemented policies promoting the use of public transportation, carpooling, cycling, and walking. The thesis uses a quantitative survey methodology to collect data from young people in both countries, with the aim of comparing their perceptions and behaviours regarding transportation choices.

Overall, Belgium and Finland are actively working to promote environmentally friendly transportation, and their communication strategies play a crucial role in raising awareness and fostering positive behavioral change among young people.

To analyze the attitudes of young people from Finland and Belgium, the author conducted a survey on Google Forms with anonymous answers, which was distributed through social media. A total of 41 Belgians and 41 Finns responded to the survey.

Firstly, Belgian and Finnish students share a strong sensitivity to environmental issues, particularly regarding climate change. A large majority of respondents from both countries acknowledge that climate change influences their transportation choices. However, it is notable that Belgian students seem more inclined to change their travel habits based on climate than Finnish people.

Regarding the factors influencing transportation choices, speed is a predominant consideration for Belgian students, while Finnish students exhibit a more balanced distribution of factors, including environmental concerns, habits, and speed. These findings highlight cultural and behavioral differences that can influence transportation preferences.

Another significant conclusion pertains to satisfaction with public transportation systems. Belgian students generally report higher satisfaction, with high satisfaction rates with the public transportation system. In contrast, Finnish students display a more varied range of satisfaction levels, with the majority rating their experience at 7/10.

Concerning the willingness to pay more for environmentally friendly transportation modes, Finnish students are more inclined to pay more compared to Belgians. These results indicate a higher level of environmental awareness in Finland regarding transportation.

Finally, it is striking that most students in both countries are not aware of government initiatives aimed at promoting environmentally friendly transportation modes. However, it is encouraging to note that the vast majority support additional government measures to encourage more environmentally friendly modes of transportation.

These results suggest that further efforts are needed to raise awareness among young people about government initiatives and the benefits of sustainable transportation modes.

In conclusion, the survey results show that young people in Belgium and Finland are aware of environmental issues related to transportation but exhibit distinct differences in their preferences and attitudes toward sustainable transportation modes. These findings provide a solid foundation for guiding policy decisions aimed at encouraging more environmentally friendly mobility and raising awareness among young people about government initiatives in this area. (OpenAI, 2023)

### Sources

Armstrong, G. & Kotler, P. (2021). Marketing de essentie 14th edition.. Pearson.

Bruyninckx, H. (2023, April 24). Air pollution levels across Europe still not safe, especially for children. Eea.europa. https://www.eea.europa.eu/en/newsroom/news/air-pollution-levels-across-europe

Buchholz, K. (2022, October 26). This chart shows global youth perspectives on climate change. Weforum. <a href="https://www.weforum.org/agenda/2022/10/chart-shows-global-youth-perspectives-on-climate-change/">https://www.weforum.org/agenda/2022/10/chart-shows-global-youth-perspectives-on-climate-change/</a>

Bx1, (2023, May12). La chambre adopte une résolution pour un ticket combiné pour tous les transports en commun. bx1. <a href="https://bx1.be/categories/mobilite/la-chambre-adopte-une-resolution-pour-un-ticket-combine-pour-tous-les-transports-en-commun/">https://bx1.be/categories/mobilite/la-chambre-adopte-une-resolution-pour-un-ticket-combine-pour-tous-les-transports-en-commun/</a>

Climate Trade, (2023, May 11). The world's most polluting industries. ClimateTrade. <a href="https://climatetrade.com/the-worlds-most-polluting-industries/">https://climatetrade.com/the-worlds-most-polluting-industries/</a>

Cord, J.(2019, August). L'école finlandaise met l'accent sur le changement climatique. Finland. <a href="https://finland.fi/fr/vie-amp-societe/lecole-finlandaise-met-laccent-sur-le-changement-">https://finland.fi/fr/vie-amp-societe/lecole-finlandaise-met-laccent-sur-le-changement-</a>

climatique/#:~:text=Les%20%C3%A91%C3%A8ves%20des%20%C3%A9coles%20de,pour%20enrayer%20le%20changement%20climatique

Dahlman, L. & Lindsey, R. (2023, January 18). Climate Change: Global Temperature. Climate.gov. <a href="https://www.climate.gov/news-features/understanding-climate/climate-change-global-">https://www.climate.gov/news-features/understanding-climate/climate-change-global-</a>

temperature#:~:text=According%20to%20NOAA's%202021%20Annual,0.18%20% C2%B0C)%20per%20decade Dudovskiy, J. (2022). The ultimate guide to writing a dissertation in business: A Step-by-Step assistance (6<sup>th</sup> edition). <a href="https://research-methodology.net/research-methodology/research-design/">https://research-methodology/research-design/</a>

Eco mobilité, (2013, August 19). Informer et sensibiliser son personnel à l'usage de modes de transports alternatifs à la voiture. Bruxelles environnement. <u>Informer et sensibiliser dans le cadre du PDE (environnement.brussels)</u>

European Environment agency, (2023, June 14). Extreme weather: floods, droughts and heatwaves. Eea.europa. <a href="https://www.eea.europa.eu/en/topics/in-depth/extreme-weather-floods-droughts-and-heatwaves?activeAccordion=dd2e16ef-4d34-48ae-bd38-31258544004d">https://www.eea.europa.eu/en/topics/in-depth/extreme-weather-floods-droughts-and-heatwaves?activeAccordion=dd2e16ef-4d34-48ae-bd38-31258544004d</a>

European Environment agency, (2023, September 28). Transport and mobility. Eea.europa. https://www.eea.europa.eu/en/topics/in-depth/transport-and-mobility

Expat, (2022, April 05). Moyens de transport en Belgique. Expat. <a href="https://www.expat.com/fr/guide/europe/belgique/10984-moyens-de-transport-en-belgique.html#:~:text=Le%20v%C3%A9lo%2C%20la%20voiture%2C%20le,n'importe%20o%C3%B9%20en%20Belgique.">https://www.expat.com/fr/guide/europe/belgique/10984-moyens-de-transport-en-belgique.html#:~:text=Le%20v%C3%A9lo%2C%20la%20voiture%2C%20le,n'importe%20o%C3%B9%20en%20Belgique.

Kenton, W. (2022, July 01). Sample: What It Means in Statistics, Types, and Examples. Investopedia. <a href="https://www.investopedia.com/terms/s/sample.asp">https://www.investopedia.com/terms/s/sample.asp</a>

Le Soir, (2019, January 24). 35.000 jeunes ont défilé à Bruxelles : « on est plus chaud que le climat ». le soir. <a href="https://www.lesoir.be/202519/article/2019-01-24/35000-jeunes-ont-defile-bruxelles-est-plus-chaud-que-le-climat">https://www.lesoir.be/202519/article/2019-01-24/35000-jeunes-ont-defile-bruxelles-est-plus-chaud-que-le-climat</a>

Ministry of the Environment, (2022, June 2), Towards carbon-neutral Finland – Government adopts Medium-term Climate Change Policy Plan. Valtioneuvosto. <a href="https://valtioneuvosto.fi/en/-/1410903/towards-carbon-neutral-finland-government-adopts-medium-term-climate-change-policy-plan">https://valtioneuvosto.fi/en/-/1410903/towards-carbon-neutral-finland-government-adopts-medium-term-climate-change-policy-plan</a>

Niemi, J. (2023, May 03). Public transport in Finland: Getting Around in the Land of a thousand lakes. Baronanordic. <a href="https://baronanordic.com/articles/public-transport-in-finland/">https://baronanordic.com/articles/public-transport-in-finland/</a>

NOAA National Centers for Environmental Information, (2023). State of the Climate: Global Climate Report for 2022. https://www.ncei.noaa.gov/access/monitoring/monthly-report/global/202213

OECD, (2021, October 06). Services de mobilité innovants en Finlande. oecd. <a href="https://www.oecd.org/action-climat/ipac/politiques-en-action/services-de-mobilite-innovants-en-finlande-9f6a9f0c/">https://www.oecd.org/action-climat/ipac/politiques-en-action/services-de-mobilite-innovants-en-finlande-9f6a9f0c/</a>

OpenAI. 2023. ChatGPT (2023) <a href="https://chat.openai.com/">https://chat.openai.com/</a>

Pic, J. (2023 February 2023). La crise climatique influence -t-elle les vacanciers?.

Tourmag. <a href="https://www.tourmag.com/La-crise-climatique-influence-t-elle-les-vacanciers">https://www.tourmag.com/La-crise-climatique-influence-t-elle-les-vacanciers</a> a117487.html

Salto education and training, (2023). Teaching sustainability competences for hope, well-being and systemic understanding. Salto. <a href="https://salto-et.net/events/show/FI01\_0498\_THO\_2023">https://salto-et.net/events/show/FI01\_0498\_THO\_2023</a>

State Treasury Republic of Finland, (2023, August 18). Carbon Neutral Finland 2035. Treasuryfinland. <a href="https://www.treasuryfinland.fi/investor-relations/sustainability-and-finnish-government-bonds/carbon-neutral-finland-2035/#:~:text=Finland's%20obligation%20under%20EU%20law,of%20carbon%20neutrality%20in%202035.

Vlaamse overheid, (2020, February 04). Strategie climatique flamande pour 2050. Ec.europa. <a href="https://ec.europa.eu/clima/sites/lts/lts">https://ec.europa.eu/clima/sites/lts/lts</a> be fr.pdf

Vullers, S (2021). Marketing & Corporate Communication. Acco Learn.

YLE, (2019, March 15). Finland's climate strike kids: 'We're running this planet". yle news. <a href="https://yle.fi/a/3-10692006">https://yle.fi/a/3-10692006</a>

Thesis research: the perspectives and opinions of fellow young people regarding the impact of climate change on their choice of transportation methods in Finland

Greetings,

My name is Alexandre de Staercke, and I am a 22-year-old student at SAMK, Satakunta University of Applied Sciences, in Finland, currently in my final year of undergraduate studies. I am conducting this survey as part of my thesis research, aiming to gather the perspectives and opinions of fellow young people regarding the impact of climate change on their choice of transportation methods. Your input will greatly contribute to my research, and I appreciate your participation in this important study. Thank you for your time and valuable insights.

alexandredestaercke@gmail.com Changer de compte  Non partagé  Non partagé	<b>⊘</b>	
* Indique une question obligatoire		
1. Gender *		
O Male		
○ Female		
2. Age *		
O 18-20		
O 21-23		
O 24-26		

3. What mode of transportation do you most frequently use for your daily commute? ( check max 2 answers)	*						
Walking							
Bicycle							
Public transportation (bus, tram, subway)							
Car							
Carpooling							
Electric scooter							
Other							
4. What is the most significant factor influencing your choice of transportation	1?*						
Cost							
Environmental							
Speed							
○ Habits							
Other							
5. Your overall satisfaction with the public transportation system in Finland *							
1 2 3 4 5 6 7 8 9 10							
0 0 0 0 0 0 0 0 0							
6. Does climate change influence your choice of transportation? *							
O Yes							
O Sometimes							
O Never							
7. Have you ever changed your mode of transportation for environmental * reasons?							
○ Yes							
○ No							

8. Would you be willing to pay more for a more environmentally friendly mode of transportation?  Yes	
○ No	
9. Are you aware of any government initiatives or measures aimed at promoting * environmentally friendly modes of transportation?	
O Yes	
○ No	
10. Do you believe that more measures should be taken to promote eco-friendly	
modes of transportation?	
O Yes	
○ No	
Do you have any additional comments or suggestions regarding the choice of transportation and the ecological impact of climate change?	
Votre réponse	