

# **Baseline analysis and recommendations for BREEAM travel plan implementation**

**Case company: Finnair Oyj**

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<p>This thesis was commissioned by Finnair Oyj.</p> <p>Communication is a critical factor in an organisation's operational success. With a direct influence on the employees' awareness of the company's values and goals, internal communication helps employees to understand the planned changes, engaging and involving them to commit to be part of the change process.</p> <p>The theory framework of this thesis covers all the concepts needed to explain the importance of internal communications within the organisation when implementing a new environmental management system such as BREEAM (Building Research Establishment's Environmental Assessment Method), to explain how green marketing can benefit the company, to transform employees into its ambassadors, to promote corporate values and to improve the image of the organisation. To understand individuals' behaviour, the study also explains organisational behaviour, describing methods used to motivate employees to embrace environmental changes and to find ways to engage and give them a sense of belonging.</p> <p>The empirical study was carried out by using two research methods. Qualitative research, conducted through interviews, focused on Finnair's internal communication effectiveness. The quantitative approach was taken through a survey, intended to identify Finnair employees' current commuting behaviour and incentives that would motivate them to change toward more sustainable modes of transport.</p> <p>The findings of the research describe in detail the employees' commuting patterns and the motivation factors. The results show the majority of employees use their private car for commuting, regardless of the season, something which can be caused by the fact there is a free parking facility provided by Finnair for all staff members. However, cycling represents quite a high level of interest among the respondents if the company would provide the right incentive scheme to promote and encourage cycling.</p> <p>As a result, the outcome of this research provides valuable information, used to draw recommendations of internal communication solutions, as well as, transportation system changes, benefiting the company when implementing the BREEAM travel plan, part of Finnair Cargo's (COOL) new terminal certification. The recommendations include: storytelling, increasing the amount of video content, having open and effective two-way communication, facilitating collaborative problem solving, creating an online "Green" community or providing the right content for specific audiences.</p>	
<b>Keywords</b> Internal Communication, EMS, BREEAM, Green Transportation, Organisational behaviour, Employees' motivation, Employees engagement	

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# 1 Introduction

“If sustainability is to become a persuasive vision, it needs a persuasive language.”

Futerra Sustainability Communications 2007

Nowadays, companies are under continuous pressure to achieve sustainable competitive advantage. Therefore, it is very important to implement an Environmental Management System (EMS) within the organisation, to improve the company's reputation and environmental performance.

Some environmental laws and regulations, to reduce pollution and protect the environment, have already been established within the European Union (EU). The EU has increased fines and taxes on pollution, and as a consequence, the demand of implementing an EMS has increased in many industries. However, the EMS's are not yet imposed or regulated by any EU or international law. The EMS's requirements represent a huge barrier for small and medium sized enterprises (SME), due to the cost of implementation and certification of an EMS. (Weiß & Bentlage 2006, 22.)

Finnair Oyj, the commissioning company of this research thesis, has chosen to implement the Building Research Establishment Environmental Assessment Method (BREEAM), this study focuses on transportation standards. It will examine the optimum ways to implement BREEAM transportation standards and the travel plan developed, by recommending how to improve the employees work related transport toward more environmental friendly solutions, through effective internal communication.

This thesis will closely study, the existing internal communication inside Finnair Oyj, the organisational and employees' behaviour in connection with work transportation, and the motivation drivers, able to change employees' current commuting habits.

## 1.1 Background

Over the last years, a trend was outlined, people have become more conscious and aware of environmental issues. In Europe, especially in Finland, sustainability is a big concern. People are more and more responsible for their own actions. Therefore, the organisations are focusing to find solutions to follow this trend, to minimize the impact of their actions towards the environment and society, to become more competitive.

Some organisations are trying to implement different programs, to reduce the greenhouse gas (GHG) emissions and the use of natural resources, but the process is difficult since it involves many changes at all organisational levels.

In order to keep the competitive advantage and increase the reputation, many organisations are willing to take part in this sustainable movement, to implement an EMS and adopt green transportation as an organisational strategy.

Green transportation involves many organisational decisions and changes such as:

- utilising resources more effectively and efficiently
- changing the transportation structure
- creating awareness among employees and engage their participation
- persuading and motivating employees to take healthier work travel choices
- implementing carpool systems
- controlling and managing the use of private vehicles
- encouraging the purchase of vehicles powered by renewable energy sources, such as electricity, solar or biofuel. (CEF 2009.)

In order to influence the employees travel behaviour toward green alternatives, the organisations need a lot of persuasion and power to convince employees to abandon the comfort and convenience of private cars in detriment of healthier and less polluting modes of transportation. Here, it comes into play the organisational communication and internal communication strategy. The employees expect to be kept up-to-date and to be informed about all the changes, and they often play a key role in the organisation's new strategy implementation success. Moreover, a transparent and effective internal communication can be the foundation of an effective external communication.

## **1.2 Research problem and objectives**

The thesis aims to find the Finnair employees' work travel behaviour, motivation drivers and how the company can use the findings during the BREEAM travel plan implementation process. These will help the company to improve the current travel behaviour toward more environmentally friendly alternatives. The research question (RQ) and investigative questions (IQ) to answer the thesis objectives are as follows:

**RQ.** How Finnair can change the employees' work related travel behaviour into a more sustainable way?

- IQ 1.** Which is the current work related travel behaviour of Finnair employees and what would motivate them to change?
- IQ 2.** What internal communication approach does Finnair currently have?
- IQ 3.** Which are the motivation drivers Finnair can use through internal communication to change employees' behaviour into a more sustainable one?
- IQ 4.** How Finnair can implement an internal communication plan to change employees' behaviour and to motivate and engage them to adopt a more sustainable mode of transport?

Table 1 presents the theoretical framework, research methods used and results chapters for each investigative question, which in the end will help the author answer the research question and finalise the thesis.

Table 1. Overlay matrix

<b>Investigative Question</b>	<b>Theoretical Framework</b>	<b>Research Methods</b>	<b>Results (chapter)</b>
IQ 1. Which is the current work related travel behaviour of Finnair employees and what would motivate them to change?	Quantitative research	Designing and disseminating the questionnaire (Webropol) Collecting data	Data base of employees' behaviour and motivators to change
IQ 2. What internal communication approach does Finnair currently have?	Internal Communication Quantitative research	Interviews and analysis of different marketing channels	Data base of employees' behaviour and motivators to change
IQ 3. Which are the motivation drivers Finnair can use through internal communication to change employees' behaviour into a more sustainable one?	Quantitative data analysis	Excel SPSS	Research results
IQ 4. How Finnair can implement an internal communication plan to change employees' behaviour and to motivate and engage them to adopt a more sustainable mode of transport?	Quantitative data interpretation	Recommendations	Finalized thesis

### 1.3 Demarcation

The purpose of this research thesis is to provide Finnair recommendations to be implemented through internal communication, to effectively improve the GHG emissions caused by the employees' modes of work travel choices.

As presented in figure 1 below, the outcomes of this research study are applicable only for Finnair, since the research will be conducted among Finnair's employees.



Figure 1. Theoretical demarcation

The thesis theory will cover the internal communication concepts and methods, as well as, environmental management systems going deeper into BREEAM and LEED alternatives and the importance of implementing a travel plan. Last but not least, the study will discuss the organisational behaviour which helps us understand the people's emotions, attitudes, values and motivation.



## 1.4 Case company introduction

The commissioning company, Finnair Oyj, is Finland's flag carrier and one of the safest airlines in the world. Its route network connect destinations from 3 continents: Europe, Asia and North America. Finnair's headquarter is located in Vantaa in the Helsinki Airport's proximity. (Finnair 2015.)

Established in 1923, Finnair is one of the world's oldest airlines, ranked as the 5th among the airlines with continued operations since their foundation. It is a public limited company with shares listed on the NASDAQ OMX Helsinki Ltd. Its major shareholder is the government of Finland, which owns 55.8% of total shares. (Finnair 2015.)

According to the Finnair's Annual Report 2015, the annual revenue was approximately 2.3 billion euros, they employ 4537 professionals, their operating fleet is formed by 46 aircraft, and they have carried about 10.3 million passengers and 130.7 tons of cargo. (Finnair 2015; Finnair Cargo 2015.)

In 2015, Finnair's greenhouse gas emissions were approximately 2.9 million tons of Carbon Dioxide (CO<sub>2</sub>), including cargo operations with an increase of 10% compared to 2014, due to traffic structure changes. Finnair committed to reduce the level of CO<sub>2</sub> emissions by 20%, until 2017 compared with the level produced in 2009. (Finnair 2015; Finnair Cargo 2015.)

## 1.5 Key Concepts

**Organisational communication** is "an organized collection of individuals working inter-dependently within a relatively structured, organized, open system to achieve common goals." (Richmond & McCroskey 2009, 1.)

**"Internal (or employee) communication"** is concerned with sharing information, building understanding, creating excitement and commitment and, ideally, achieving a desirable result." Internal communication can create a huge impact on employee engagement, commitment and motivational boost, when is effectively implemented using various communication channels. (FitzPatrick & Valskov 2014, 7.)

**Sustainable Marketing:** "...focuses, on how companies and other organisations work in an integrated way with social, environmental, and economic aspects right the way from strategy to implementation, on various levels." (Ottosson & Parment 2015, 12.)

**Green Marketing:** "Promotional activities aimed at taking advantage of the changing consumer attitudes toward a brand. These changes are increasingly being influenced by a firm's policies and practices that affect the quality of the environment, and reflect the level of its concern for the community." (Business Dictionary)

**Environmental Management System (EMS):** "The part of the overall management system that includes organisational structures, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing achieving, reviewing and maintaining the environmental policy." (European Committee for Standardization, section 3.5)

**"Sustainable Transport** is sometimes known as **Green Transport** and it is any form of transport that does not use or rely on dwindling natural resources. Instead it relies on renewable or regenerated energy rather than fossil fuels that have a finite life expectancy. For this reason, it is said to have a low or a negative effect on the environment since it makes use of energy sources that are sustainable." (Earth Times 2011.)

**Organisational behaviour:** "is the study of what people do in an organisation and how their behaviour affects the organisation's performance." (Robbins & Judge 2013, 44.)

## **1.6 List of abbreviations**

**BREEAM** – Building Research Establishment Environmental Assessment Methodology

**BRE** – Building Research Establishment

**CO<sub>2</sub>** – Carbon Dioxide

**EU** – European Union

**EMS** – Environmental Management System

**GHG** – Greenhouse Gas

**IQ** – Investigative Question

**LEED** – Leadership in Energy & Environmental Design

**RQ** – Research Question

**USGBC** – U.S. Green Building Council

## 2 Communications

Communications are an essential part of any organisation to succeed. Communication's meaning is to transmit information between two or more parties. The information is encoded by the sender and sent through a communication channel to a receiver who needs to decode the message. The role of communication is to create a common understanding between the sender and receiver of the message. We can consider the communication as being effective, only when the receiver understands the message the way the sender intended.

We continue by defining the organisational or corporate communication, which have a similar meaning, with the remark the corporate communication term is used by many authors as being the communication related to private sector companies. Cornellissen (2014, 5.) defines corporate communication as following:

Corporate communication is a management function that offers a framework for the effective coordination in all internal and external communication with the overall purpose of establishing and maintaining favourable reputations with stakeholder groups upon which the organisation is dependent.

According with Doorley & Garcia (2011, 136.) the reputation of an organisation is the sum of employees' behaviour and performance plus communication as represented in figure 2 below.



Figure 2. Reputation formula

Aligning employees' behaviour and performance with the organisation's goals and values can be done only through a strategic organisational communication defined by Doorley & Garcia (2011, 135.) as:

The process of aligning employees' "hands, minds, and hearts" with the organisation's reputational interests – as a way to produce competitive advantage.

Organisational communication includes both, the internal and external communication functions, but for the purpose of this study, we will tackle only the internal communication concept.

## 2.1 Internal communication

As the definition presented in the previous subchapter states, the internal communication is a specialised discipline of corporate communication's function. Internal communication, often named as employee communication in specialised literature, is a planned communication strategy, aiming to influence employees' attitude and behaviour and to provide them new knowledge in a systematic manner. (FitzPatrick & Valskov 2014, 7.)

FitzPatrick & Valskov (2014, 7.) have mentioned the main points to remark about internal communication are:

- Internal communication is planned – process is planned in advance and is not happening accidentally.
- Internal communication is systematic – the process is repetitive and implies knowledge and discipline.
- Internal communication is about influencing – employees should be able to choose what they do and how well they do, but in order to influence their decision, they have to be persuaded, not forced.
- Internal communication is more than telling – it creates awareness, but in the same time it should influence attitude and behaviour. Employees should be inspired to accept the change or new idea.
- Internal communication is multi-disciplinary – information alone cannot influence people's behaviour, the reason why employees need to be trained, rewarded or motivated to follow the change.
- Internal communication refers to mutual understanding – involves two-way communication. Organisations cannot just send information to employees and expect everything will suddenly change. Employees need to be involved, engaged, to be able to ask questions and make sure they understand the idea correctly.

Employees usually complain that inside organisations the flow of information does not work properly and the communication is very poor. To be easier to understand the concept of Internal communication, Kevin Ruck (2015, 27.) suggests to consider differentiating it into four dimensions as presented in the matrix below (figure 3).

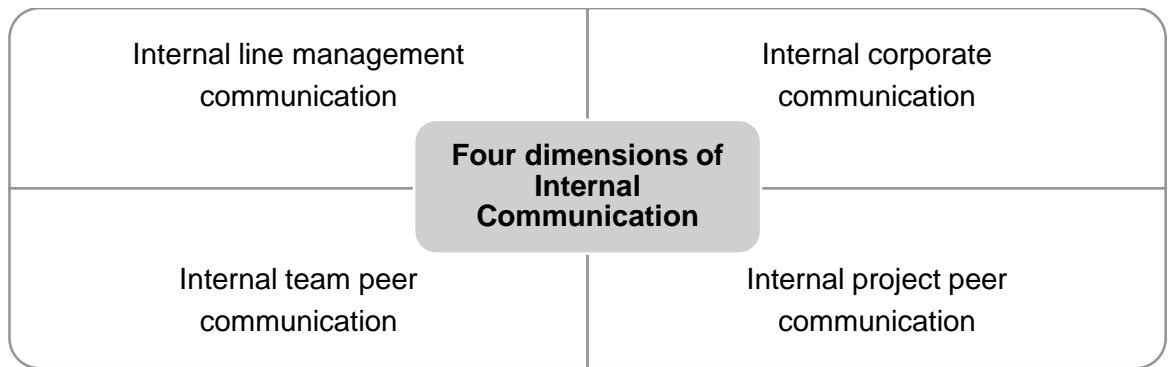


Figure 3. Internal communications matrix (Ruck 2015, 27.)

**Internal line management communication** refers to direct communication between employee and its supervisor, is most of the time two-way communication which can include along other roles of employees, appraisals and team briefings.

**Internal team peer communication** refers to direct communication between an employee and another employee, is usually two-way communication which includes informing the team, discussions about tasks and team meetings.

**Internal project peer communication** refers to communication between employees (including the project manager) about a certain project, as two-way communication which includes informing about a project and project issues discussions.

**Internal corporate communication** which is sent usually by top management to all employees, predominantly one-way communication strategy and include organisational issues such as future goals, objectives, activities, changes, new developments and achievements.

The Internal Corporate Communication is the dimension we will focus on in this study, representing the continuous communication with all employees what has as a role to build employees' engagement.

Internal Corporate Communication has followed the trend as the external communication, social media transforming the way employees communicate. New technologies have been introduced inside organisations, offering employees the possibility of having a voice and become the company's ambassadors. Internal Corporate Communication now has a greater importance, becoming a strategic function which creates positive internal relationships and enables organisational communication. (Ruck 2015, 10.)

The internal corporate communication dimension is defined as communication between an organisation's strategic managers and its internal stakeholders, designed

to promote commitment to the organisation, a sense of belonging to it, awareness of its changing environment and understanding of its evolving aims. (Welch & Jackson 2007, 186.)

Internal Corporate Communication (figure 4.) is directly influencing the employee's engagement, having the potential to create a clear understanding and awareness among all employees about the organisation's values. In addition, involves them to commit in the process of reaching the organisation's goals, satisfying at the same time their need of belonging. (Ruck 2015, 28.)

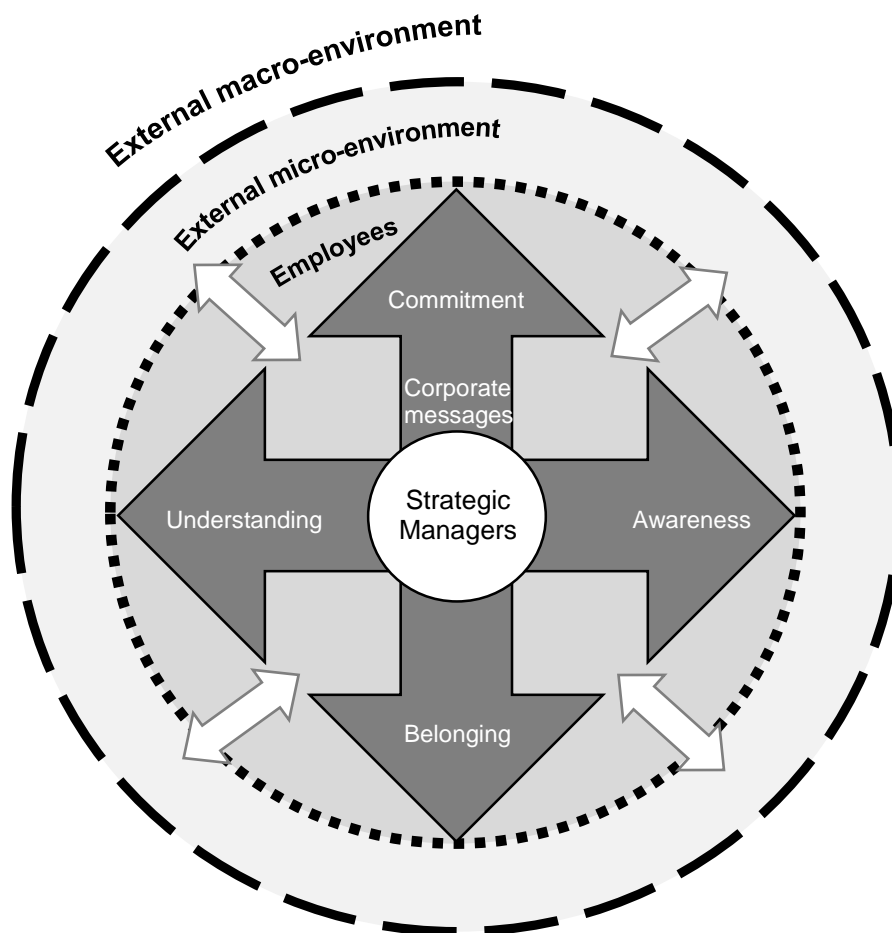


Figure 4. Internal Corporate Communication (Welch 2012, 247.)

As presented above, we can conclude that Internal Corporate Communication's roles, is to help the organisation to achieve employees': commitment to the organisation, awareness regarding changes, good understanding of the organisation's values and sense of belonging to the organisation. (Ruck 2015, 28.)

Professionals in Internal Communication believe it is almost useless to push information to people without giving them the opportunity to ask questions or express their opinions. When expressing verbally or in writing form their thoughts, psychologically it works like the idea belongs to them, making them respect it even more, to take action and to apply it.

Different channels have been developed to facilitate communication within the organisation. These channels can allow employees to express themselves, ask questions, engage in discussions, advise others, check their understanding, give feedback or follow the leaders. In today's work environment when people are so used to freedom of expression on social media, a one-way communication approaches do not function anymore. (FitzPatrick & Valskov 2014, 8.)

Internal Communication is done using various communication channels which can be divided into three main categories: verbal, non-verbal and written communication. Non-verbal communication, so called gestural or visual communication, is difficult to predict and is mainly used as an addition to verbal and written communication.

Verbal communication is defined as formal and informal, individual or group conversations between employees or employees and management. It is transmitted through direct communication channels such as: meetings, conversations, group discussions and briefings. Written communication includes all information transmitted within the organisation in written form. This can be realised through various channels like: intranet, email, newsletters, notice boards, internal magazines, memos, annual reports and social media. (Stuart & Sarrow 2007, 200.)

Verbal and written communication can occur through direct or transmitted communication and each of these include several communication channels which on their turn can be divided into close and distant channels (figure 5).

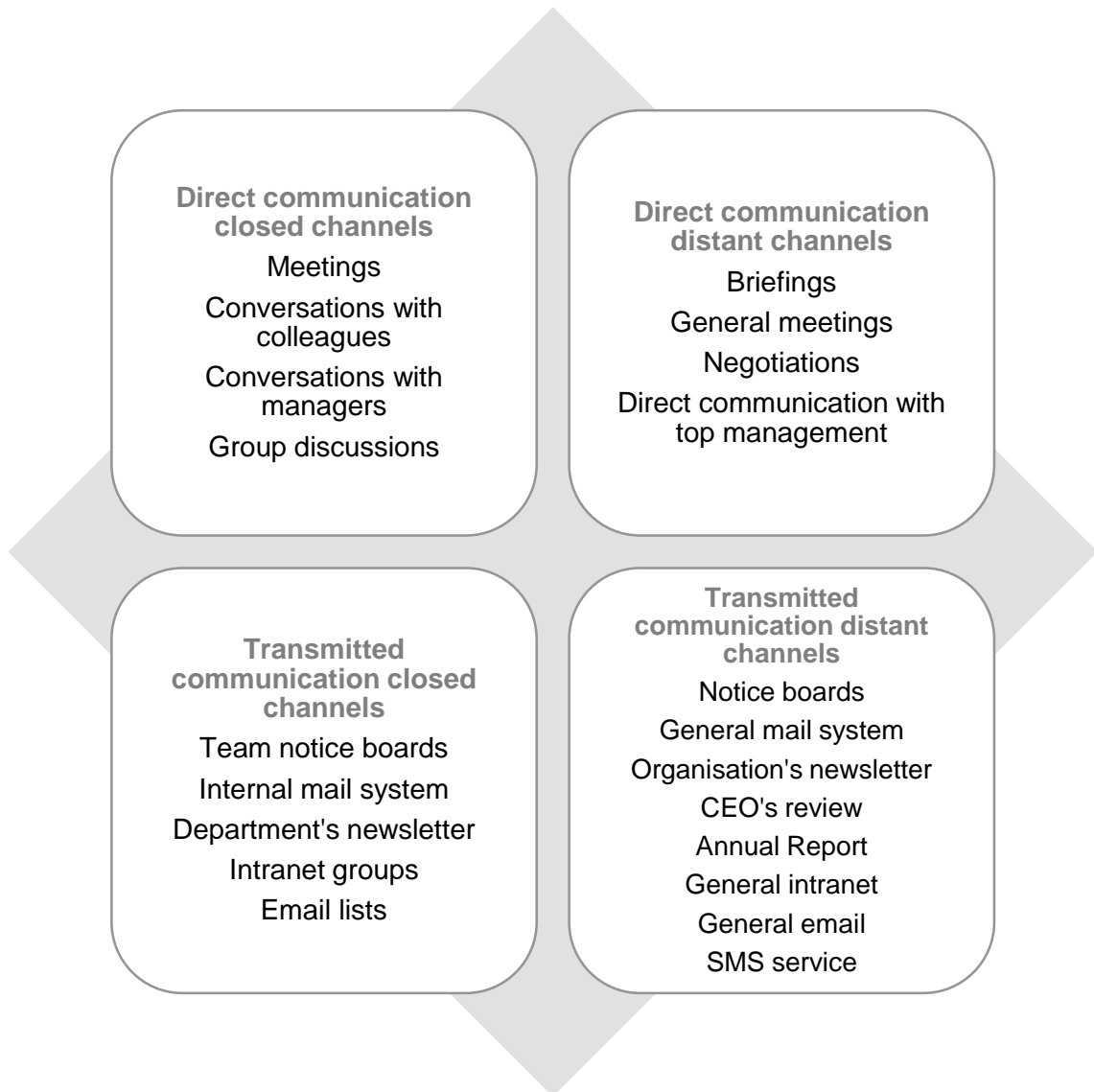


Figure 5. Internal communications channels matrix

Inside organisations, the Internal Communication function can also belong to the Human Resources (HR) department, but most commonly will be part of the communications and marketing department, if the company doesn't have its own Internal Communication department. This is perfectly understandable, since the social media age has raised many serious issues and the organisations are struggling to have a consistent voice. Internal messages have to be clear and transparent, and have to match with the message sent outside the organisation. Some companies have already realised employees are the best ambassadors to communicate their message externally. This is why the employee advocate started to be a valuable asset used more and more often in both internal and external communication, stepping outside the boundary between these two functions and integrating. (FitzPatrick & Valskov 2014, 9.)



The change within the organisation would be impossible or very difficult to realise if the employees do not understand it, they lack interest, ignore it completely or they are not engaged and motivated. Here is coming into play the Internal Communication, which creates awareness about the change, explains the rationale behind, creates excitement and discussions about it, offering all the tools and channels to be implemented. The easier way to communicate a change, especially when a sustainability matter is raised, is to communicate the added value it creates for society and environment, benefits and implications on employees' lives, as well as, on the organisation's image and reputation.

## **2.2 Green marketing**

A sustainable organisation with high aspirations to minimise environmental impact should incorporate sustainability marketing communications within its communication strategy. However, the organisation must pay special attention to filtering the content and channels, to not be perceived as aggressive in communication or even worse, as greenwashing. (Ottosson & Parment 2015, 121.)

What should the organisation do when the planned change is about implementation of a new environmental management system (EMS) and the employees don't know too much about it? Because, this implies changes in their behaviour, they have to know what EMS means, how it benefits them directly, for the organisation they work for, and the society they live in.

In today's competitive business environment, it has become a must for companies to be more sustainable. Some organisations truly believe in sustainability, others may try to keep up with their competitors and others may be pushed by their customers. In all these situations, marketing the company's sustainability, has become a crucial issue.

According to Young & Dhanda (2013, 324.) in order to succeed, when approaching green marketing, the company must take into consideration some rules such as: knowing the customer, empowering the customer to feel their purchasing decisions can make a difference, being transparent, reassuring the customers that functional and environmental are complementary aspects, and help customers understand why they are paying extra costs.

As in any other marketing field, communication is a critical factor, when green marketing is approached. The company should have a holistic approach and act green in any decision

the organisation makes. Engaging customers and other stakeholders to be part of the process will improve the relationship and will build brand equity. Companies should aim for zero environmental impact, which through a good communication program, would motivate the stakeholders to be more responsible in their own purchasing decisions. Being unrealistic must be avoided, in order to not be accused of greenwashing. (Young & Dhanda 2013, 324.)

Greenwashing represents the false environmental claims the companies may use in their marketing campaigns. Terra Choice (2010) has defined it as:

...the act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service.

Unlike the company reputation, built over a long period of time, greenwashing can be a tag attributed overnight, which can create permanent damage to the organisation's image and reputation. (Emery 2011, 225.)

To a certain extent, we are all engaged in green marketing. Any decision we take (e.g. to recycle paper, to buy an electric car or to cycle to work), which can create an impact on the environment, is an action with a green approach to marketing. Green marketing is all about helping people to evaluate different alternatives in order to make decisions with less impact on the environment. (Dahlstrom 2011, 4.)

Dahlstrom (2011, 5.) defines green marketing as:

...the development and marketing of product design to minimize negative effects on the physical environment. ...the study of all efforts to consume, produce, distribute, promote, package, and reclaim products in a manner that is sensitive or responsive to ecological concerns.

The actions taken by organisations are influenced by all stakeholders, but employees are playing a strategic role in implementing the green marketing strategy. They can generate new ideas and find the most reliable solutions to make the green strategy become reality. (Dahlstrom 2011, 26.)

Employees are more than just simply workers for the company, they are representing many stakeholder's segments. They can also be customers, shareholders and part of a

community the organisation operates in, having a great impact on the company's reputation and success. Nobody is proud to work for a company with severe social and environmental issues. Employees can be part of building a greener workplace, if they are involved and allowed to present their ideas to improve the company's sustainability strategy and as a result the company's image. They are the link between the organisation and the community in which they live, able to build trust and create good relations. (Ottoman 2011, 165.)

To create impact and credibility, the organisations can show their employees that environmental concerns are a priority, creating continuous awareness and celebrating each success on this matter. Setting attainable goals can motivate employees to take part of the environmental programs. The goals can relate to their personal health, wellbeing or the impact they can make for their community. This will create benefits for both parties: the employee will be healthier, satisfied and proud with his workplace and the company will have more productive workers, decreased costs with sick leaves and better reputation. (Ottoman 2011, 166.)

The company can create a strategy to empower the employees to make improvements on their own lives, their families and their community. Creating awareness among employees about the organisational commitments and engaging them to reduce their own environmental impact, will offer them the opportunity to learn how to live more sustainable lives overall. Being proactive and exceeding employees' expectations to solve environmental problems, will improve their commitment for the organisation's strategy. This can create a strong emotional bond, engaging and motivating them to be part of the big positive change. (Ottoman 2011, 167.)

### 3 Environmental management systems (EMS)

Every company, private or public, functions according with a specific and unique management system and in essence is all about the way of circulating information inside the organisation. Management systems involve different organisational levels such as: personnel, structure, planning operations, processes and behaviours. (Sheldon & Yoxon 1999, 4.) European Committee for Standardization (section 3.5) has defined the EMS as follows:

The part of the overall management system that includes organisational structures, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing achieving, reviewing and maintaining the environmental policy.

Organisational performance can be improved if the environmental management works properly. For this, the organisation needs to analyse what happens in certain circumstances, but more than this, why these things happen. Even from the 50's a Deming Cycle or "Plan, Do, Check, Act" model (figure 6) has been introduced to emphasise how the organisation can improve continuously through quality management. (Weiß & Bentlage 2006, 23.)

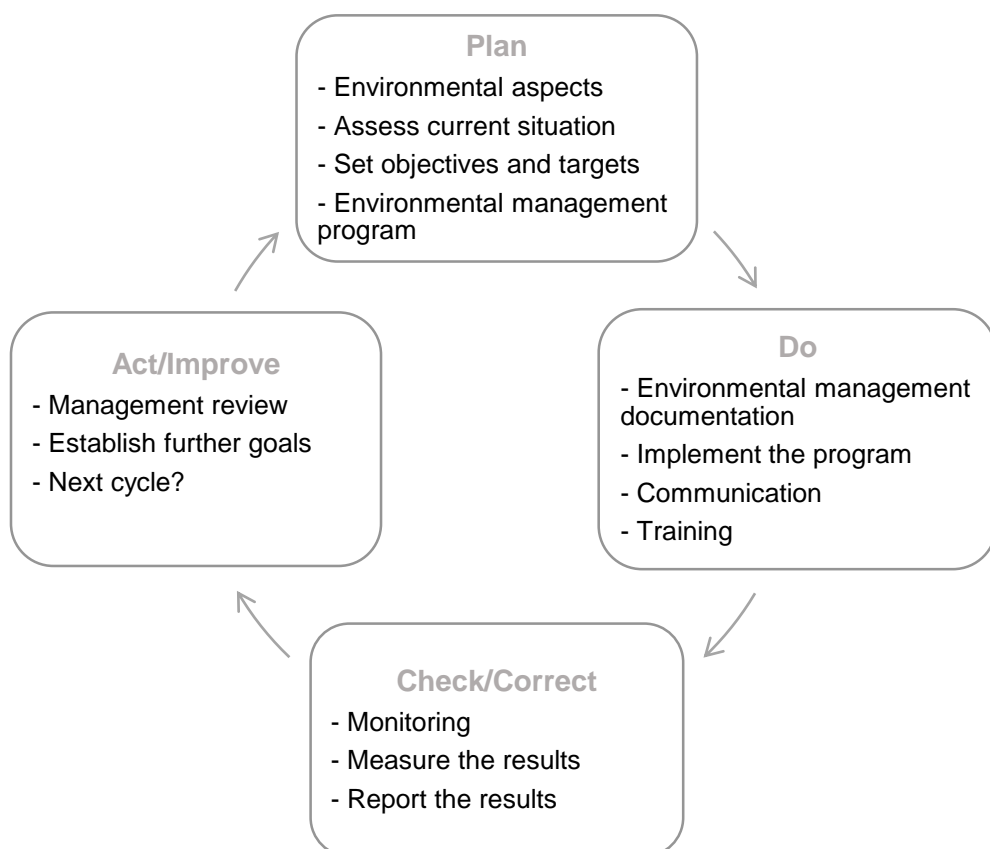


Figure 6. Deming quality management model

EMS's, or the so called green management systems, are a result of initial corporate search for competitive advantage since the 70's. That was the starting point of raising publicly environmental issues such as in table 2: air pollution, water pollution and non-renewable resources. In the 90's, some other important issues attracted people's attention, like: the Greenhouse effect, ozone layer and biodiversity. (Sheldon & Yoxon 1999, 4.)

Table 2. Evolution of environmental issues (Guimaraes 2010, 47.)

Period	Up to 70's	The 80's	The 90's	The 2000's
<b>Environmental Issues</b>	<ul style="list-style-type: none"> <li>- Air pollution</li> <li>- Water pollution</li> <li>- Non-renewable resources</li> </ul>	<ul style="list-style-type: none"> <li>- Waste</li> <li>- Soil contamination</li> <li>- Accidents</li> </ul>	<ul style="list-style-type: none"> <li>- Greenhouse effect</li> <li>- Ozone layer</li> <li>- Biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>- Impact of products</li> <li>- Genetics</li> </ul>

Within the European Union (EU), some environmental laws and regulations to reduce pollution and protect the environment have already been established. The EU has increased fines and taxes on pollution, and as a consequence, the demand of implementing an EMS has increased in many industries. However, the EMS's are not yet imposed or regulated by any EU or international law, the EMS's requirements representing a huge barrier for small and medium size enterprises (SME) due to the cost of implementation and certification of an EMS. (Weiß & Bentlage 2006, 22.)

In this study, we will focus on two of the issues mentioned above: air pollution and the Greenhouse effect strictly related with work transportation modes, which nowadays has become a real concern for governments, corporations, but also for individuals. Lately, this concern has become a trend and organisations are trying to keep their competitive advantage and improve their reputation, respecting certain transportation environmental standards and switching toward green transportation.

Independent certification awarded by a credible source is a more reliable and transparent way to communicate the organisation's achievements and will prove its commitment for environmental improvement.

### **3.1 Green Building Standards and Certification Systems**

Buildings can impact the environment directly or indirectly during different stages: construction, occupancy, renovation, repurposing, and demolition. The green building standards and certification systems have been created to reduce the building's impact on the environment, to provide guidance, compare buildings using the same structure and parameters such as the use of energy, water, raw materials, the waste generated or the atmospheric emissions. (WBDG 2014.)

There are many certification systems for sustainable buildings such as: LEED, BREEAM, DGNB (Germany), MINEERGIE (Switzerland), HQE, EU GBP (Green Building Programme), CASBEE (Japan), Green Globes, Living Building Challenge, Green Mark Scheme (Singapore), Green Star SA (South Africa), Pearl Rating System for Estidama (United Arab Emirates) and many other. In this study we will focus only on the first two which are the most popular in Finland and were also considered by the case company prior to the application.

### **3.2 LEED**

LEED (Leadership in Energy and Environmental Design) is one of the most popular internationally recognised green building certification systems, owned by USGBC (U.S. Green Building Council). Since its beginning, March 2000, LEED provided independent verification of buildings, and a framework for sustainable constructions, enabling control over indoor building operations.

USGBC organisation (2016) describes LEED as:

...a green building certification program that recognizes best-in-class building strategies and practices. LEED certification provides independent verification of a building or neighbourhood's green features, allowing for the design, construction, operations and maintenance of resource-efficient, high-performing, healthy, cost-effective buildings. LEED is the triple bottom line in action, benefiting people, planet and profit.

The newest version, launched in 2013, LEED version 4 (LEEDv4) was designed to improve the user's experience, to offer more flexibility and applicability to wider range of projects.

LEED offers five rating systems to choose from, when applying for certification: Building Design and Construction, Interior Design and Construction, Building Operations and Maintenance, Neighbourhood Development and HOMES. The selection of the rating system is done according to the project's extent and nature.

As presented in table 3 below, LEED offers certification for many types of buildings or projects, focusing on nine main credit areas such as: integrative process, location and transportation, sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and regional priority. For each of these categories of credits correspond a number of points available. Some of the credits are prerequisites and without achieving these, the certification process cannot continue. In total, LEED award a maximum of 110 points. At the end of the process, according to the number of points earned by the project, the building will be certified with one of the levels: Certified (40-49 points), Silver (50-59 points), Gold (60-79 points) or Platinum (80+ points). (USGBC 2016.)

Table 3. LEEDv4 for new constructions and major renovation overview

Certification system	Building types	Areas of focus	Credits available	Levels of certification
<b>LEED</b>	New construction	Integrative process	1	<b>CERTIFIED</b> 40-49 points
	Existing buildings	Location and transportation	16	
	Core and shell	Sustainable sites	10	<b>SILVER</b> 50-59 points
	Schools	Water efficiency	11	
	Retails	Energy and atmosphere	33	
	Healthcare	Materials and resources	13	<b>GOLD</b> 60-79 points
	Data centres	Indoor environmental quality	16	
	Hospitality	Innovation	6	<b>PLATINUM</b> 80+ points
	Warehouse and Distribution centres	Regional priority	4	

LEED certification is a systematic process, starting with the planning phase when the project team decides the project's objectives and goals, and the certification system used. If the system selected is LEED, the project will be registered on the LEED online portal where all required documentation will be uploaded and the registration fee will be paid.

There are two available options to approach the project review: combined review, where both the design and construction documents are submitted for review when the construction phase has ended, and split review, when the documentation is submitted for review during the design phase and at the end of construction phase.

After documentation has been reviewed by GBSI (Green Building Certification Institute), a third party organisation, the performance of the project is assessed and measured, and the final score will establish the project's rating to be awarded.

### **3.3 BREEAM**

BREEAM (Building Research Establishment Environmental Assessment Methodology) is the first sustainable building's assessment, rating and certification system founded in 1990 by BRE (Building Research Establishment organisation). Worldwide, BREEAM is used for building assessment in 70 countries, being more popular in United Kingdom and Europe, where in total has acquired about 80% of the market share.

BRE (2015) describe BREEAM as:

...the leading and most widely used environmental assessment method for buildings. It sets the standards for best practices in sustainable design and has become the de facto measure used to describe a building's environmental performance.

Currently, there are over 538 000 certified projects and approximately 2 230 000 projects registered for a BREEAM assessment. The last international version of BREEAM released in 2013, and later updated in 2014, is BREEAM International New Constructions 2013. (BREEAM 2015.)

There are various reasons for which designers and builders select BREEAM for the new constructions' assessment, such as:

- provide an indicator of best practices of sustainable values
- reduce operational costs of the building overtime
- improve the occupancies' working/living environment
- reduce the building's environmental impact
- inspire sustainable innovation
- prove the building's standards and environmental progress
- provide internationally recognised certification



- offer the possibility to benchmark against competitors and gain competitive advantage. (BREEAM 2015.)

BREEAM certifies any building, from Eco homes to large community master plans, at any stage of the building's life in many sectors such as: data centres, education, healthcare, industrial, office, retail and residential. There are ten credit categories: management, health and wellbeing, energy, transport, water, materials, waste, land use, pollution and innovation. For each of these categories of credits, correspond to the number of points available. The point does not correspond with the percentage weight. Each category has a different weight established in respect to the other categories. The number of points gained from a category will be converted into a weight percentage according to table 4. There is a minimum percentage required to be achieved in each of the first nine categories. The extra credits for innovation, representing up to 10%, are awarded for projects with exemplary sustainable performances. (BREEAM 2015.)

Table 4. BREEAM International New Construction 2013 overview

Certification system	Building types	Areas of focus	Credits available/Weight	Rating of certification
<b>BREEAM</b>	Communities New constructions In Use buildings Refurbishment and Fit-out buildings	Management	21 / 12%	<b>UNCLASSIFIED</b> < 30%
		Health and wellbeing	21 / 15%	
		Energy	31 / 15%	<b>PASS</b> ≥ 30%
		Transport	12 / 9%	
		Water	9 / 7%	<b>GOOD</b> ≥ 45%
		Materials	14 / 13.5%	
		Waste	9 / 8.5%	<b>VERY GOOD</b> ≥ 55%
		Land use and Ecology	10 / 10%	
		Pollution	13 / 10%	<b>EXCELLENT</b> ≥ 70%
		Innovation (additional)	10/ 10%	
				<b>OUTSTANDING</b> ≥ 85%

The rating of the building will be determined after the points are calculated, which are influenced by some elements such as: BREEAM rating benchmarks, the credit points weighting of each category, the minimum standards required or the number of credits gained for innovation. Each subcategory for which the credits are claimed must be documented to prove that it satisfies the standards. The final score obtained must represent at least 30% of the total points' weighted in order to receive the PASS level, at least 45% for the GOOD level, minimum 55% for VERY GOOD, 70% or more for EXCELLENT and 85% and up for OUTSTANDING rating. (BREEAM 2015.) The credit categories are divided into

subcategories (table 5) addressing different environmental issues and are assessed separately.

Table 5. Summary of BREEAM categories and issues addressed

Category	Issues addressed
Management	Project brief and design Life cycle cost and service life planning Responsible construction practices Commissioning and handover
Health and wellbeing	Visual comfort Indoor air quality Safe containment in laboratories Thermal comfort Acoustics performance Safety and security
Energy	Reduction of energy use and carbon emissions Energy monitoring External lightning Low carbon design Energy efficient cold storage Energy efficient transportation system Energy efficient laboratory system Energy efficient building equipment Drying space
Transport	Public transport accessibility Proximity to amenities Cyclist facilities Maximum car parking capacity Travel plan
Water	Water consumption Water monitoring Water leak detection Water efficient equipment
Materials	Life cycle impacts Hard landscaping and boundary protection Responsible sourcing of materials Insulation Designing for durability and resilience Material efficiency
Waste	Construction waste management Recycled aggregates Operational waste Speculative floor and ceiling finishes Adaptation to climate change Functional adaptability
Land use and Ecology	Site selection Ecological value of site and protection of ecological features Minimising impact on existing site ecology Enhancing site ecology Long term impact on biodiversity
Pollution	Impact of refrigerants NOx emissions Surface water run-off Reduction of night time light pollution Reduction of noise pollution
Innovation	Innovation

The BREEAM certification process for new buildings occur in two stages: the design stage resulting in an interim BREEAM certification and the post construction stage, after which, the final BREEAM rating and certification will be awarded, according the results obtained.

To achieve the objectives of building a construction that allows people to live and work in a healthy and inspiring environment BREEAM supports the creation and maintenance of a sustainable built environment, delivering long-term benefits to all stakeholders. (BREEAM 2015.)

### 3.4 BREEAM Transport category

The transport category, as summarised in table 6 below, is divided into five issues related to the new construction's transport network and accessibility, encouraging the building users to reduce the transport pollution and traffic congestion, by using sustainable means of transport. This category does not require any minimum standards to classify for the final rating awarded.

Table 6. BREEAM transport category summary

Issue ID	Issue	Credits available	Credit summary
Tra 01	Public transport accessibility	5	Assess the public transport network serving the site Encourage the transport related pollution and traffic congestion reduction
Tra 02	Proximity to amenities	2	Assess the accessibility to local amenities Encourage developments in the site's proximity to facilitate the access of the building users to the frequently used services
Tra 03	Cyclist facilities	2	Assess the cycling facilities on site Encourage safe and healthy cycling
Tra 04	Maximum car parking capacity	2	Assess the parking capacity related to the number of building's users Encourage the reduction of car usage
Tra 05	Travel plan	1	Assess the site's travel plan Encourage promoting sustainable means of transport

### 3.5 BREEAM Tra 05: Travel plan

For the purpose of the present thesis study, we will concentrate more on the last issue assessed in the BREEAM transport category, the travel plan.

A travel plan is a strategy for managing all travel and transport within an organisation, principally to increase choice and reduce reliance on the car by seeking to improve access to a site or development by sustainable modes of transport. A travel plan contains both physical and behavioural measures to increase travel choices and reduce reliance on single occupancy car travel. (BREEAM 2015.)

The aim of a travel plan is to encourage the building occupants to use forms of transport with lower or no impact on the environment. Moreover, the objectives of designing and implementing a travel plan are to plan and take measures to reduce the single occupancy private car usage, to promote sustainable commuting modes, to encourage walking and cycling when possible, as well as, the use of public transport and carpooling. All these, would influence building users commuting behaviour on the long term, to reduce their number of journeys during their work day and to improve their safety, health and well-being.

The travel plan has to be developed during the design stage and it should include the site's travel assessment, which must cover at least the following information:

- Current travel patterns and travel options for building users, as well as, the opportunity to identify any travel constraints
- The future impact of travel patterns and existing travel possibilities
- Pedestrians and cyclist's accessibility considering the visitors and the one's accompanied by small children
- Accessibility for people with different levels of disability
- Public transport network in the proximity of the site
- Cyclists' facilities provided.

The travel plan will include measures to be taken by the building owner to encourage the use of more sustainable means of transport. The constructor or the owner, must commit to implementing the travel plan after the construction stage has ended. (BREEAM 2015.)

### 3.6 Green transportation

Most organisations follow the environmental trend, defined by the “Reduce, Reuse, Recycle” slogan. It is a good initiative to try to reduce the use of resources and the level of pollution, to reuse items or to recycle the left over waste. But beside these, at the bottom of the pollution prevention pyramid (figure 7) are two more Rs, which are seldom explored by companies. The first one is **reimagine** the product, service, process to innovate new ones with better quality to increase satisfaction and in the same time with lower environmental impact. Before reducing, the companies should consider **redesigning**, and exploring further what needs to be changed and how the company will do it to accommodate the new product/service into its processes.

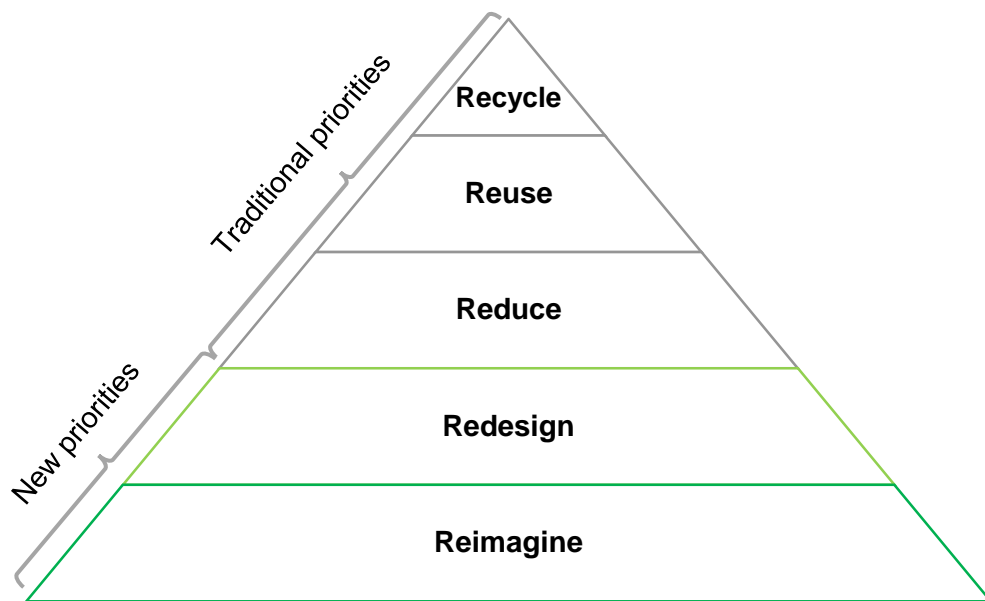


Figure 7. Pollution Prevention Hierarchy (Esty & Winston 2009, 197.)

Energy conservation which “refers to efforts to limit the amount of resources employed in consumption” and the efficient usage of the resources which “examines the extent to which organisations and individuals engage efforts to reduce, reuse or recycle resources”, have a key role in reducing the pollution and limit the climate change. For example, using hybrid cars instead of normal ones, will reduce the demand for fossil fuel by 30 to 60%. An even better result, will be obtained using full electric cars. (Dahlstrom 2011, 83.)

Road transportation is a major contributor to greenhouse gas (GHG) emissions, especially CO<sub>2</sub>, which is one of the biggest factors influencing the global climate change. The sustainability trend and the increased number of private vehicles has put pressure on governments to take measures to reduce the GHG emissions and to decrease the oil demand.

The International Energy Agency research shows at least 87% of domestic passenger travel is done by car, with an average increase, since 1990, with 1.1% annually. (IEA 2016.)

The green transportation hierarchy and the pollution it causes, can be presented as in figure 8. The greener the mode of transportation, the less impact it has on the environment and on the other hand, the comfort of the private car used for a single person has the highest pollution level.

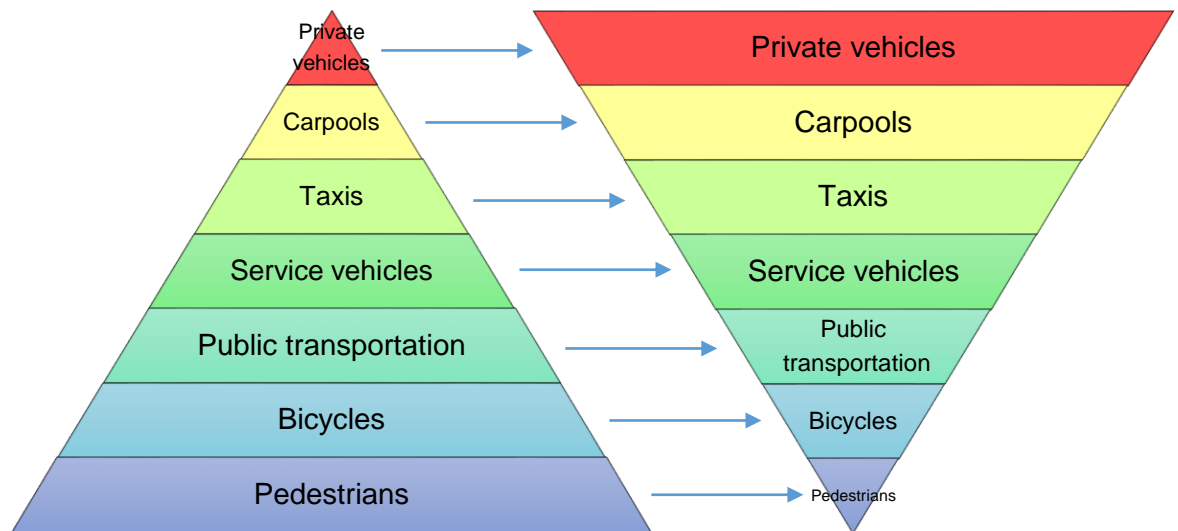


Figure 8. Green transportation hierarchy vs pollution it causes

Green transportation includes any kind of transportation practice or vehicle that is eco-friendly and does not have any negative impact on the immediate environment. (CEF 2009.)

Green transportation involves many decisions and changes inside the organisation. These could include: utilising resources more effectively and efficiently, changing the transportation infrastructure, creating awareness among employees and engaging their participation, convincing employees to make healthier work travel choices, controlling the use of private vehicles, or encouraging the purchase of vehicles powered by renewable energy sources like electricity, biofuel and solar. (CEF 2009.)

Considering green transportation options available for each site location, companies can create environmental impact by reducing employees' private car usage. There are many environmental friendly alternatives and in this chapter the most important will be described in more detail.

**Walking** is the greenest way of commuting to work, but in most cases, when the company site is not located in the centre of town or near a residential area, this mode of transport becomes difficult or even impossible. To facilitate an easier access to company premises by walking, the company can provide pedestrians access to safe and fast walking routes including the shortcuts and signage where possible and good exterior lighting in the site's neighbourhood, especially during the winter. (DfT 2008, 42.)

**Cycling**, activity of riding a bicycle as a commuting mode, is not a priority in today's modern life. Companies can create a cycling culture, encouraging and incentivising this activity to become a regular habit. Moreover, cycling is a recreational activity, reducing the stress and offering the possibility for healthy exercise while traveling to work. Encouraging employees to cycle is not enough, the company should also facilitate certain conditions to improve cyclist's experiences such as: secure cycle parking in prime spots on site, showers, changing rooms, lockers, dryer facilities, cycle routes to the site, bike maintenance service, bike discount pricing or cycling day events to promote cycling. (DfT 2008, 48.)

**Public transport**, here referring to bus, train, tram and metro is considered cheaper and less stressful than using a private car. If the distances are long and require more traveling time, people tend to choose the car. In some cases, a 20 km journey by public transport could last over an hour, including transfers of different modes, three times more than the same journey by car. Time is money for everybody, so it is unfair to ask people to spend a few hours a day in public transport just to become a green commuter. Instead, the company could try to remove the obstacles the employees face when using public transport to commute, such as: the high price of regional tickets, lack of connections between public transport modes, poor network near company site, slow routes or lack of information regarding public transport timetables.

To facilitate a fast and easy commuting by public transport, the company should inform the Public Transport Operator about the travel plan and the site location's particular problems. The company may also obtain and agree to a public transport discount for its employees. (DfT 2008, 39.)

**Carpooling** is considered the most feasible green commuting alternative for isolated sites located outside the city, offering the potential to reduce the car trips considerably.

Oxford dictionary (2016) defines carpooling as "an arrangement between people to make a regular journey in a single vehicle, typically with each person taking turns to drive the others."

But according to the Cambridge dictionary (2016) carpool is “a group of cars, owned by a company or other organisation that can be used by any of its employees.”

In the same category we can include car sharing and ride sharing which have similar meanings with small differences. Ride sharing is arranged by website or mobile application means and car sharing includes renting others' cars for a short period of time and paying only for their usage.

There are many alternatives available to implement a carpool program. The company can choose to be part of a public database, which automatically finds other people matching the journey in your neighbourhood or a closed database, accessible only for the company's employees. Beside the journey patterns, the database offers the possibility to match people selecting other criteria such as gender or other preferences (for example non-smoking). (DfT 2008, 28.)

The cost of carpooling, car sharing or ride sharing can be agreed between users, before the journey starts. It is not recommended to be promoted as a cost free transport mode. In this case the driver will perceive this as an optional arrangement and the passenger as a favour, which will make him feel uncomfortable. Both parties using the carpool system should be seen as equal. For this purpose, some cost sharing methods have been proposed such as: each employee uses their own car by turn, the cost of the fuel will be shared between car sharers and paid to the driver, or the cost per kilometre to be paid to the driver (calculated including the fuel and car depreciation without any profit, to not be confused with a taxi service).

According to the law “the driver must not make any profit” and the “car sharing database must store and use information in accordance with the Data Protection Act”. (DfT 2008, 29-30.)



## 4 Organisational behaviour

It is considered, the main resource of an organisation are the people and the organisation is the people working for it. This can be the reason why in today's competitive environment it is more and more important to understand and manage people in leading the organisation to success. (Mullins 2011, 3.)

Organisational behaviour studies the impact of individuals, groups and structure on behaviour within the organisation in order to improve its effectiveness. It is investigating what people do and how they act, as well as, how their behaviour influence the performance of the organisation. (Robbins & Judge 2013, 44.)

There are many different definitions more or less complex, but all are along the same idea, that the Organisational Behaviour is:

the study and understanding of individual and group behaviour and patterns of structure in order to help improve organisational performance and effectiveness. (Mullins 2011, 3.)

Organisational behaviour is also a systematic study which provides a deeper understanding of the employees' behaviour, organisation's: nature, purpose, strategy, processes, work execution, coordination of the activities, social responsibility, ethics, external environment and its need to survive and succeed. (Mullins 2011, 5.)

As explained above, we have to understand individuals' or employees' behaviour in an organisation which will lead to understanding the organisational behaviour.

We are all very different, each of us having particular personality, skills, beliefs, attitudes, values, emotions and motivation drivers. It is not easy to recognise this diversity and to use it effectively within organisations without a proper study, some of these variables being too intimate to be just observed. (Brooks 2009, 43.)

## 4.1 Employee behaviour

Employees' behaviour can be defined as the way the employees responds in specific situations at work. One of the most influential factors of the individuals' behaviour at work is their personality which has been defined by Brooks (2009, 43.) as:

...specific characteristics of individuals which may be open or hidden and may determine either commonality of difference in behaviour in an organisation.

Therefore, the employees' personality will also influence their attitudes and motivation creating difficulties inside organisations when a change is coming. Employees respond differently to motivational stimuli, some are more positive, some more negative about change and their personality is an important player on people's way of behaving in an organisation. But, behaviour is determined also by other factors which can be divided into two main categories as table 7 shows: internal factors based on personal attributes and external factors which cannot be controlled by individuals.

Table 7. Factors affecting individual behaviour

Internal factors	External factors
Personality	Organisation
Attitude	Work factors (e.g. technology and increasing demand)
Beliefs	Peer-group pressure
Values	Personal life experience
Perception	Society
Emotions	Family
Motivation	Environment
Abilities	

Personal attitude is a factor which directly influences the employee's behaviour in an organisation. Attitudes are learned and developed during an individual's entire life, some being the core essence, representing who he is. These attitudes can be very difficult to change whereas secondary attitudes, can change with new information and experiences. (Mullins 2011, 96.)

In order to have a better understanding of the internal factors which influence the individual behaviour, a differentiation between these need to be made.

According to Mullins (2011, 96.) **attitudes** describe employee's insight feelings and provide the tendency to react in a certain way in similar situations, and **beliefs** are based on

individual's acquired knowledge and the way they understand the reality. **Values** refer to personal convictions, what the individual desires and think should be his mode of conduct. (Robbins & Judge 2013, 178.) On the other hand, **perception** represents the person's way to select and interpret information that creates a meaning for him to influence his behaviour (Mullins 2011, 122.) and **emotions** can describe deep feelings directed to certain things and people. There are many emotions that can have a powerful effect on people's behaviour which are categorised into positive and negative emotions such as in table 8. (Robbins & Judge 2013, 134.)

Table 8. Emotions affecting individual behaviour

Positive emotions	Negative emotions
Enthusiasm	Anger
Happiness	Envy
Hope	Fear
Trust	Frustration
Joy	Disappointment
Optimism	Embarrassment
Pride	Doubt
Gratitude	Guilt
Empathy	Sadness
Love	Shame
	Hate

Most important to remember, is emotions cannot be neutral and the emotional balance should be inclined to the positive side to reach employee's openness for change.

As the study of this thesis is researching motivation drivers which can change employee's behaviour, special attention has to be given to individual's motivation factors. Motivation describes certain forces, stimuli and incentives that influence the individual's behaviour. (Gibson, Donnelly, Ivancevich & Konopaske 2012, 126.)

## 4.2 Employee motivation

Motivation can be described as individual's desire to achieve goals, targets or to be rewarded, which enhance his personal satisfaction.

A motive is a reason of doing something. Motivation is concerned with the strength and direction of behaviour and the factors that influence people to behave in certain ways. (Armstrong 2015, 60.)

There are three components of motivation as Armstrong (2015, 60.) mentioned: the direction, representing what an individual want to achieve, the effort, measuring how hard the individual is trying in order to achieve his goal, and the persistence, establishing how long the individual keeps trying to achieve that goal.

Self-motivation is considered the best form of motivation, helping people to use their abilities and perform at their maximum capacity. However, the quality of leadership, recognition or the rewards can be additional factors in influencing individual's motivation.

Two types of motivation are described by Armstrong (2015, 61.) and are presented in table 9.

**Intrinsic motivation** comes from inner factors or "psychological" rewards, influencing individual's behaviour if he feels his work is interesting, challenging and important without using any incentives. Some factors stimulating people's motivation could be emphasised: skills variety, challenging tasks, importance of tasks, autonomy and the feedback received.

**Extrinsic motivation** on the other hand is done by the company to motivate employees using different methods or tangible rewards such as incentives, security, promotions or punishment and criticism, these having an instant effect, but most probably will not last for a long period of time.

Table 9. Herzberg's intrinsic and extrinsic rewards (Brooks 2009, 93.)

Intrinsic rewards	Extrinsic rewards
sense of achievement	company policy
work itself	relationship with supervisors
recognition	relationship with peers
responsibility	working conditions
advancement	remuneration
personal growth	promotion
	job security

When a change is planned within the organisation, people may feel anxiety, frustration or fear, which may affect their inner motivation and their overall performance. Managers should know employees' goals, concerns and fears, to be able to take actions and manage these successfully. One of the most important methods, in keeping employees motivated during the change process is a transparent two-ways communication. Giving and receiving feedback regarding any work concerns could represent the key factor to keep people motivated. (Brooks 2009, 98.)

Many theories (table 10) attempted to explain individual's motivation and behaviour. They were divided by Mullins (2011, 173.) into two approaches. The first are content theories attempting to identify individual's needs and goals to explain what motivates people and makes them behave in a particular way. The second are the process theories attempting to identify the connection between motivation's variable which lead to a certain behaviour.

Table 10. Content and process theories of motivation (Gibson, Donnelly, Ivancevich & Konopaske 2012, 128-173.)

	Theories of motivation	Key variables
<b>Content theories</b>	Maslow's hierarchy of needs theory	Physiological needs Safety and security needs Belongingness, social and love needs Esteem needs Self-actualisation needs
	Herzberg's two factor theory	Hygiene factors (e.g. working conditions, security, personal relations) Motivators (e.g. recognition, achievement, growth, advancement, responsibility)
	McClelland's learned needs theory	Need of achievement Need of power Need of affiliation
	Alderfer's ERG theory	Existence needs Relatedness needs Growth needs
<b>Process theories</b>	Vroom's expectancy theory	Valence Instrumentally Expectancy
	Porter and Lower's expectancy theory	Value of reward Perceived effort Abilities Performance Rewards Satisfaction
	Adam's equity theory	Person Comparison with others Inputs Outcomes
	Locker's goal theory	Values Emotions and desires Goals Responses, actions, behaviour and performance Consequence or feedback

### 4.3 Employee engagement

In our time, more and more companies realised that engaged employees create a positive impact on their work experience, but also improves the organisation's overall performance creating a competitive advantage.

Employee engagement is a human resource management and organisational behaviour concept referring to what employee has to offer to show their commitment to the organisation he works for, motivated to contribute without being a requirement. It has been also defined by Bridger (2015, 5.) as:

A workplace approach design to ensure that employees are committed to their organization's success, and are able at the same time to enhance their own sense of well-being.

It can be also described as a positive attitude, behaviour or an outcome of employees motivated to connect with their work and colleagues, or to create a connection between their organisation and external environment, being directly involved in the organisation's success. To better explain how employee engagement works, Bridger (2015, 7.) has created a model (figure 9) emphasizing the employee's attitudes, organisational behaviour and the business outcomes contributing to the organisation's success and employees' well-being and satisfaction.

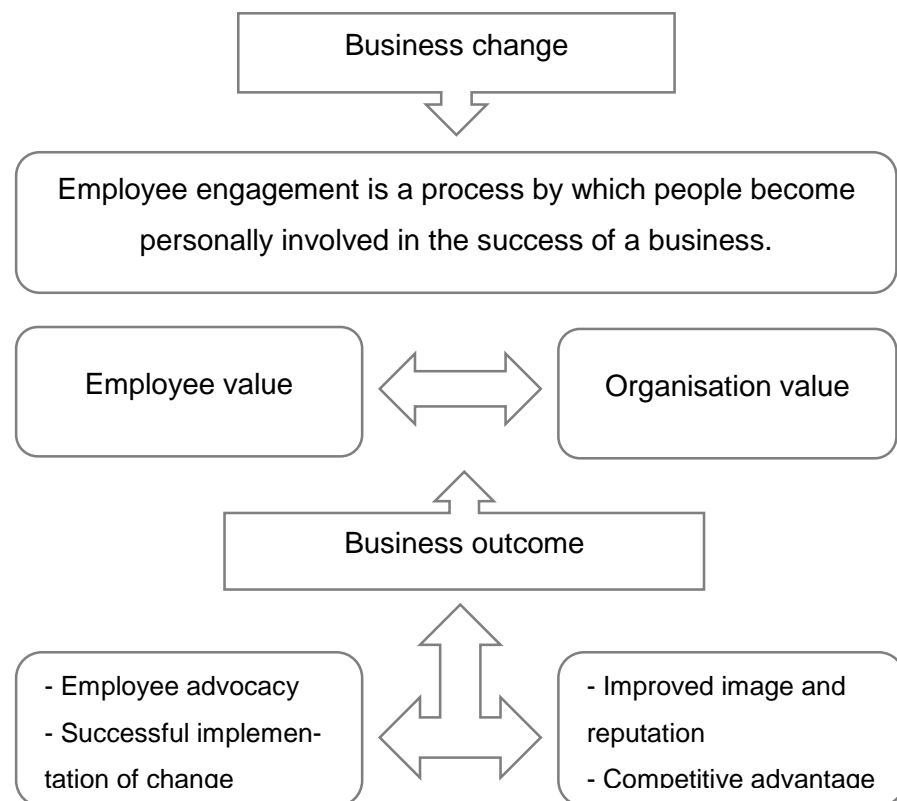


Figure 9. Employee engagement

This model shows the correlation between employee value and the organisation's value which should be a two-way process. The same value representing both parties will make employees engage voluntarily. In other words, in order to reach the desired goals and outcomes, the company must ensure employees are committed to the organisation's values, try to motivate them to be part of the success by giving them a voice and boost their overall well-being.

Giving employees a voice is considered by Ruck (2015, 50.) as being the "enabler of employee engagement". He defines the employee voice as:

A process of continuous dialogue between employees and managers, whereby employees are given regular opportunities to express views, concerns, ideas and practical suggestions about the organisation to all levels of management in an environment where such communication is genuinely welcomed, taken seriously, considered and honest responses provided.

According to Ruck (2015, 40.) there are two concepts of employee's voice, one describing the employee's behaviour of making suggestions for improvement within an organisation and the second one describe employee's participation in the organisation decision making.

Regardless the concept, an informed employee voice can have a great contribution to increasing the level of engagement if the employee has a deep understanding about everything happening inside the organisation. This understanding will create the foundation of his ideas, suggestions or opinions, facilitating an effective two-way communication. (Ruck 2015, 50.)

## 5 Research methodology

This chapter provides an overall picture of the research methods used and outlines the research process starting from the planning stage until data analysis. The research findings will be reported in a separate chapter.

When questions without answers arise, there is an opportunity to research to find it out. In order to get the correct answer, the problem has to be defined carefully and the questions should be clear and easy to understand, in order to eliminate chance of misinterpretation.

Research is a process of panning, executing and investigating in order to find answers to our specific questions. (Ghauri & Gronhaug 2010, 44.)

The research of this thesis has been approached as a systematic process, divided into four phases: background knowledge, planning, questionnaire design and data collection and analysis (figure 10), starting with the research idea and going through each step to gather the information needed to achieve the research objectives.

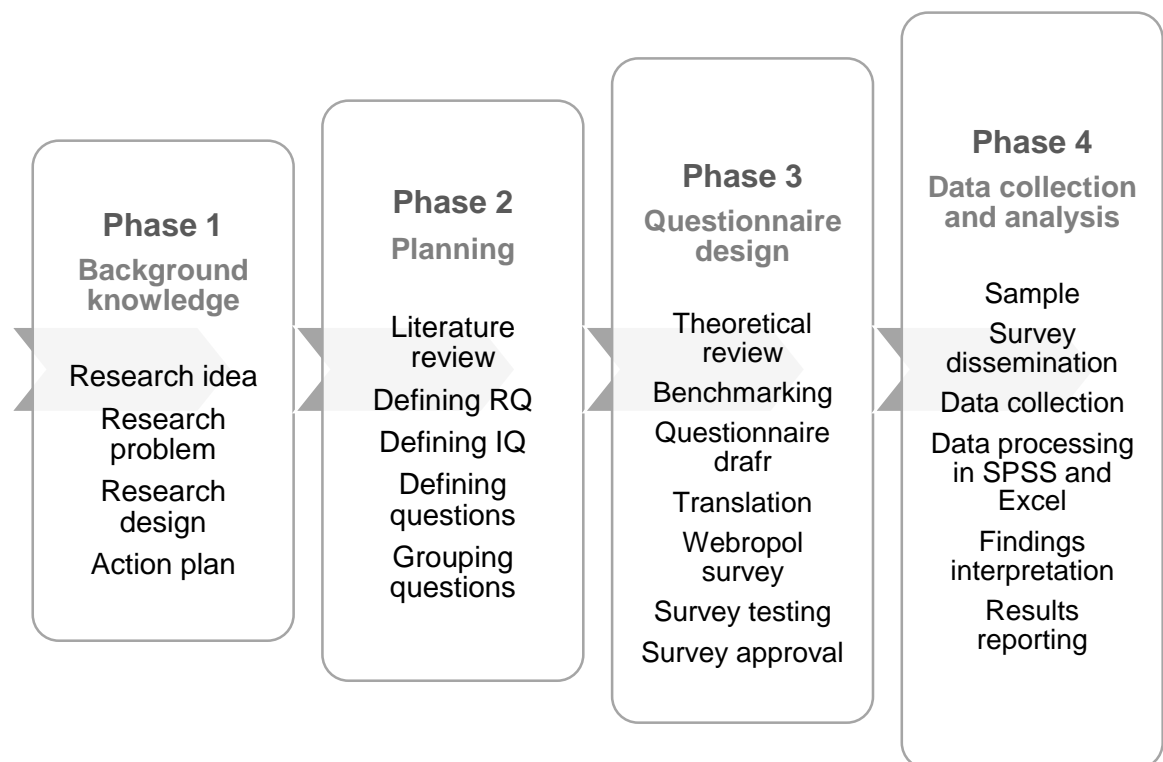


Figure 10. Phases of the research process



## 5.1 Method selection

To decide which is the appropriate research method, the research problem and purpose has to be clearly defined. The research method selection can be influenced also by the resources allocated and the researcher's skills and capabilities. (Ghauri & Gronhaug 2010, 45.)

In order to answer all investigative questions, two research methods were used for the empirical study. First of all, in order to make recommendations (IQ 4) about internal communication's effective use in motivating employees to change their work travel behaviour, a qualitative interview research needs to be done. The information collected, together with Internal Communication channels, provided an overview regarding Finnair's Internal Communication function (IQ 1). The data collected during the interviews as presented in figure 11 is used only for this thesis purpose and is not meant to strongly influence the final recommendations.

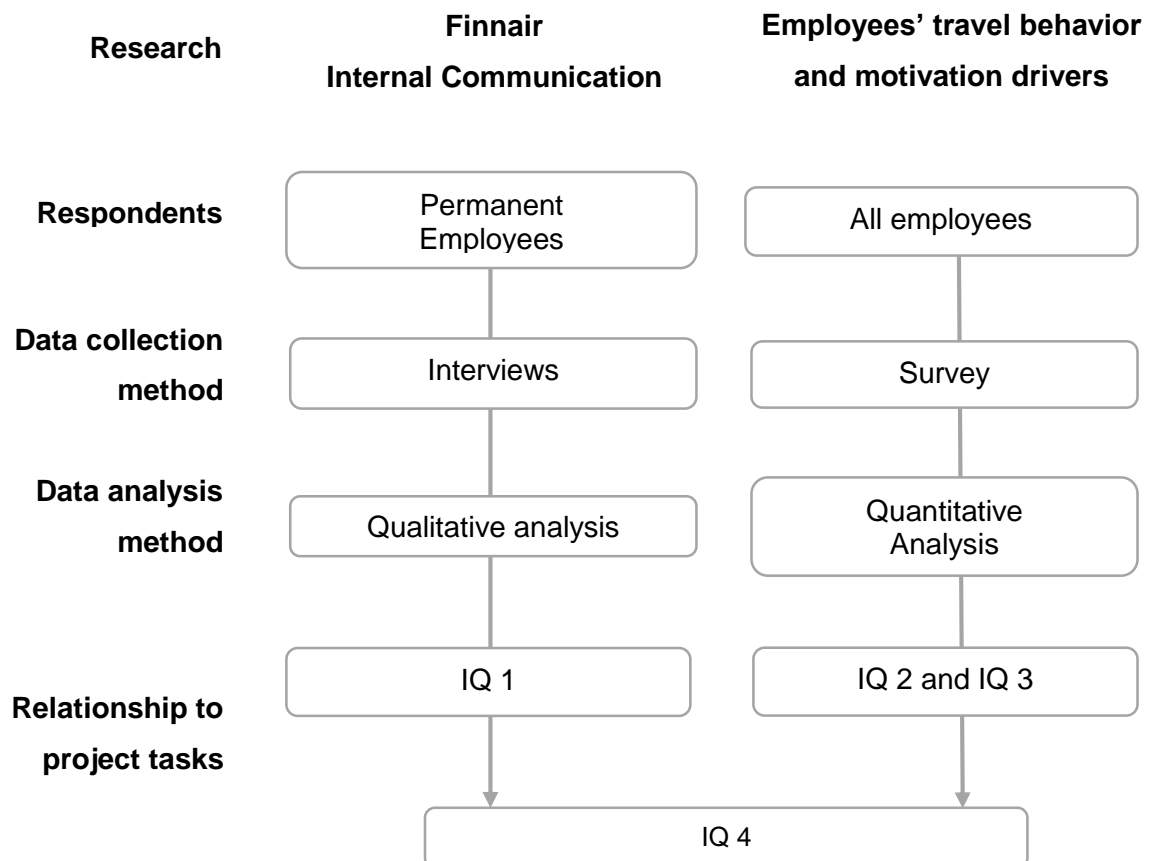


Figure 11. Research methods

The quantitative survey was the second method approached, in order to find the employees' current commuting behaviour and what would motivate them to change (IQ 2 and IQ 3).

The author considered the survey as the best approach for descriptive and explanatory research. In order to find Finnair employees' travel behaviour and their personal motivation drivers to change, the questionnaire was designed to investigate those issues. To be able to recommend and make suggestions about how the results can be encoded into messages and sent to employees through internal communication channels, the quantitative research approach can help to explain the relationship between variables.

Combining two different research methods, offered a clear view about various behavioural aspects, as well as, the use of internal communication within the organisation. These important insights reveal the answers, to decide the best way to make recommendations for implementing the new travel plan.

## **5.2 Data collection**

The data collection process was divided into two stages. First the employee quantitative survey was conducted and second, the qualitative interviews regarding the company's internal communications were organised.

### **Employee survey**

The most popular data collection methods are surveys and questionnaires. When the research problem is clear and the purpose of the research was defined, the type of the survey can be determined.

Survey refer to a method of data collection that utilizes questionnaires or interview techniques for recording the verbal behaviour of respondents. The survey is an effective tool to get opinions, attitudes and descriptions as well as for capturing cause-and-effect relationships. (Ghuri & Gronhaug 2010, 118.)

For the purpose of this particular study, descriptive and explanatory research was considered appropriate to determine the employees' work travel behaviour and patterns.

The type of survey was an on-line questionnaire, sent to respondents through internal communication channels like email and intranet. The respondents group was established from the beginning and no relevant secondary data was available in this particular case.

During the first phase of the research a quantitative questionnaire of 30 questions was designed (including factual and demographic variables, attitude and opinion variables as well as behaviour and event variables) and the survey was conducted among all Finnair employees without exception. The questionnaire was divided into four main themes:

1. The general and work related background including: place of residence, postal code, work site location, length of employment, distance to work site, type of working schedule and disabilities.
2. The current employees' commuting behaviour and patterns including: the used transport methods for daily commuting to work, the difference between commuting modes in different seasons, alternatives in case the first option is unavailable, number of transfers needed when using public transport, commuting related accidents and parking space accessibility.
3. The motivation factors to change employees' work related travel toward sustainable alternatives and the incentives the company can offer to change and improve the current commuting patterns.
4. The possibility to reduce the working travel journeys including questions related with remote working, the frequency of journeys between the company premises, the distance and methods used for these journeys.

The questionnaire ended with two general background information questions regarding the gender and the age of the respondents and offered them the opportunity to participate a draw by leaving their email address. (Appendix 1)

The time to complete the questionnaire was approximated to be 5 minutes and the allocated time to submit the responses was 18 days starting from the 9th of February until the 26th of February 2016. Initially, 14 days were agreed to be enough time for respondents, but due to the fact that the period chosen included the ski holiday the period was extended 4 more days.

The questionnaire design was prepared by the author of this thesis and with small modification and wording improvement was approved by the commissioning company representatives one day later than previously scheduled.

The entire survey population was estimated at 4537 employees (Finnair Annual Report 2015), the majority working in the airport and Finnair headquarter proximity. Since such a big number of respondents were expected, the data collection was organised to be conducted through Webropol, by sending the direct online link.

Before dissemination, the survey has been tested by numerous people including the: company representatives, thesis advisor, quantitative methods teacher and thesis author, and officially sent out to all employees on the 9th of February 2016 at 10 am.

Out of 4537 employees, 1768 completed questionnaires were received before the 26th of February at midnight, when the survey link was closed. The survey had a 38.96% valid response rate and the collected data was compiled and analysed with SPSS and Excel statistical tools.

## **Interviews**

To find more insights and employees' perception about Finnair internal communication, a qualitative research was conducted interviewing five of Finnair employees. One interview was partly face to face, the interviewee presenting to the thesis author, the electronic internal communication channels in use. All the interviewees, received a set of questions (appendix 3) and sent the answers back to the researcher, by email.

Ghuri & Grønhaug (2010, 125.) have categorised the data collected through interviews in three methods: personal interview, telephone interview and email interview. In primary data collection, the researcher can decide according to circumstances whether the interviews will be conducted face to face, on phone or via email.

For this study purpose the researcher has decided to conduct a semi-structured interview, sending the respondents a set of predetermined open questions via email, due to respondents' lack of time. The interview subjects (5 Finnair employees) were preselected and contacted directly by the company representatives. The subjects answered the questions in their own time, without being influenced or oriented by the researcher, to answer in a certain manner.

The language used to formulate the questions was simple, plain and easy to understand English language. Academic terminology was intentionally avoided, since the researcher was not aware of the selected respondents' backgrounds.

The interview included 17 predefined questions (appendix 3) and the respondent was allowed to decide the length of the answer. Everything was accepted, from a word to as many lines as the respondent decided would be appropriate, as long as that was his or her own opinion. The interview did not include sensitive questions which could make the interviewee feel uncomfortable. To answer the interview, the respondents were expected to freely use their own words and to send back the answers to the researcher by email in the time frame established.

Even if it was small scale interview research, the process was carried out in a systematic manner to overcome any unplanned issues, following the predefined steps in this precise order: research problem analysis, literature review, interview questions, structured interview, respondents' selection, data collection, data analysis and reporting.

### **5.3 Validity and reliability**

Validity is very important in quantitative surveys, the research information obtained is considered as being valid, if the data collected represents the truth. There are two types of validity:

1. Internal validity – when the respondent understands the question as intended and answer in the sincerest way.
2. External validity – when the research findings can be generated for other populations, periods of time or circumstances (Saunders, Lewis & Thornhill 2016, 450.)

Reliability is referring to the research replicability in similar conditions and similar sample. A research is considered reliable if similar results are obtained when replicating the survey in similar circumstances. (Saunders & all 2016, 450.)

The design of the survey was done as clear as possible, and did not allowed non responses, which could influence the results. The questionnaire's cover letter (appendix 1) and outlook (appendix 2), were created in two languages and designed as professionally as possible, utilising the commissioning company's visual identity elements, such as: logo, picture and colour. The visual aspect was considered, to eliminate any possibility the respondents would avoid participation because of the look and layout.

The company's desire was to conduct the survey in both English and Finnish languages. While the author did not have the ability to translate the questionnaire in Finnish language, she depended on someone else from the company to do it, which could represent another risk affecting the results validity. This issue was discussed, and the company contact person took the responsibility to translate the questionnaire. To make sure, the meaning of the questions was the same in both languages, the author asked for advice from her thesis advisor and the quantitative research advisor. With few modifications, the questionnaire was approved by all parties involved, giving the author the certainty the questions have the same meaning, and the results can be combined and analysed together.

We can conclude the commuting research results, have a high level of validity, since the respondents were not influenced in any way by the interviewer or other external factors. The collected data represents the answers received through Webropol, without any influence from the researcher. However, the number of respondents could be influenced by the incentive offered. The respondents willing to participate the draw, were no longer anonymous, which could have a slight influence on their answers. Due to the fact that the questionnaire did not include any sensitive questions, the risk of receiving invalid answers was very low.

As stated in the beginning of this report, the results of this research are reliable only for Finnair company employees. The results can be generalised for the entire population, due to the high response rate, and similar results would be obtained in similar conditions. The results are not applicable for any other population, except the one mentioned before.

## **6 Research results**

This chapter will outline the commuting research results, as well as, a summary of findings related to the Finnair's internal communication, collected through interviews.

### **6.1 Employees' general and work related background information**

Commuting has a direct effect in reducing the GHG emissions for any company. The employee's choice of commuting method, is influenced by many factors such as: distance from home to their work site, working schedule, public transport routes and speed or convenience. The survey purpose was to identify the current commuting modes; Finnair employees are using daily to get to work. Beside this, by analysing the results, we can draw a conclusion to which environmental friendly commuting alternatives the employees prefer and what would motivate them to change toward these methods.

#### **Gender**

With a moderate difference, the majority of respondents participating in this research, were female, representing 58.7%, male percentage being 40.3% out of 1768 respondents' total.

#### **Age**

The age range was divided into six categories. There were no answers from participants under the age of 20. From the total responses received (figure 12), less than 10% of respondents are under 30 and over 60 years old. The majority are distributed between the other categories (90.6%). The highest response rate was among the 40 to 49 age group, counting for more than one third, of all respondents. The age distribution can be a factor to take into account when deciding, which are the most feasible modes of transport and what would be the effective way to promote those.

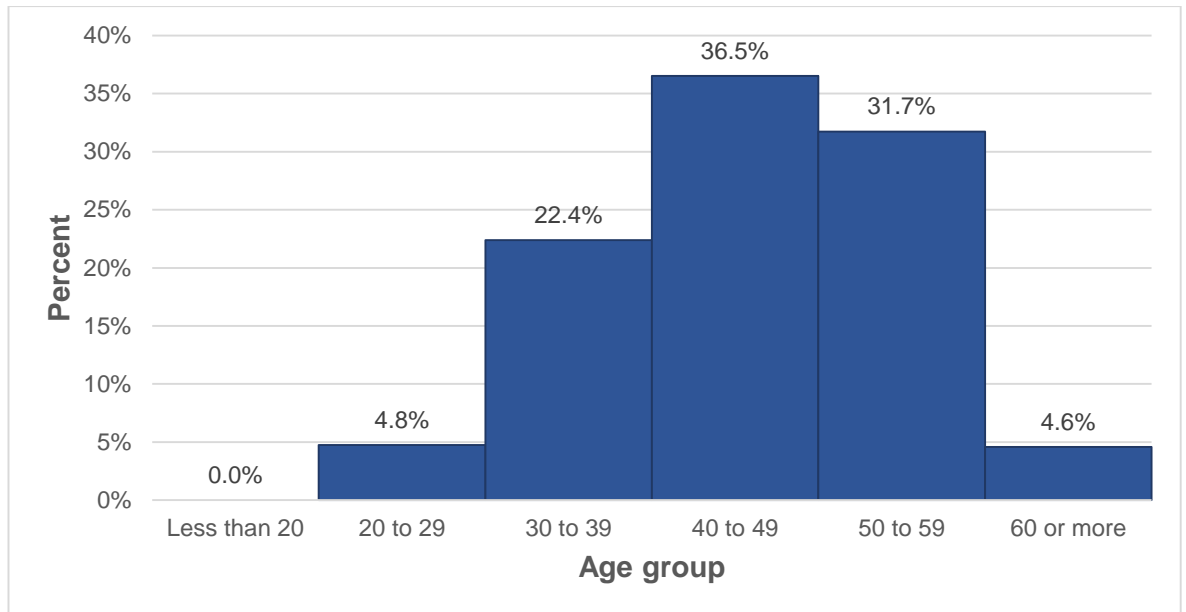


Figure 12. Respondent's age (n=1768)

### Place of residence

When asking respondents where they live (figure 13), eight predefined answers were given and the ninth option, provided the possibility to write the name of the town, if that was missing from the list. About two thirds of participants are living in the capital region (32.3% in Helsinki, 17.9% in Vantaa and 12.6% in Espoo).

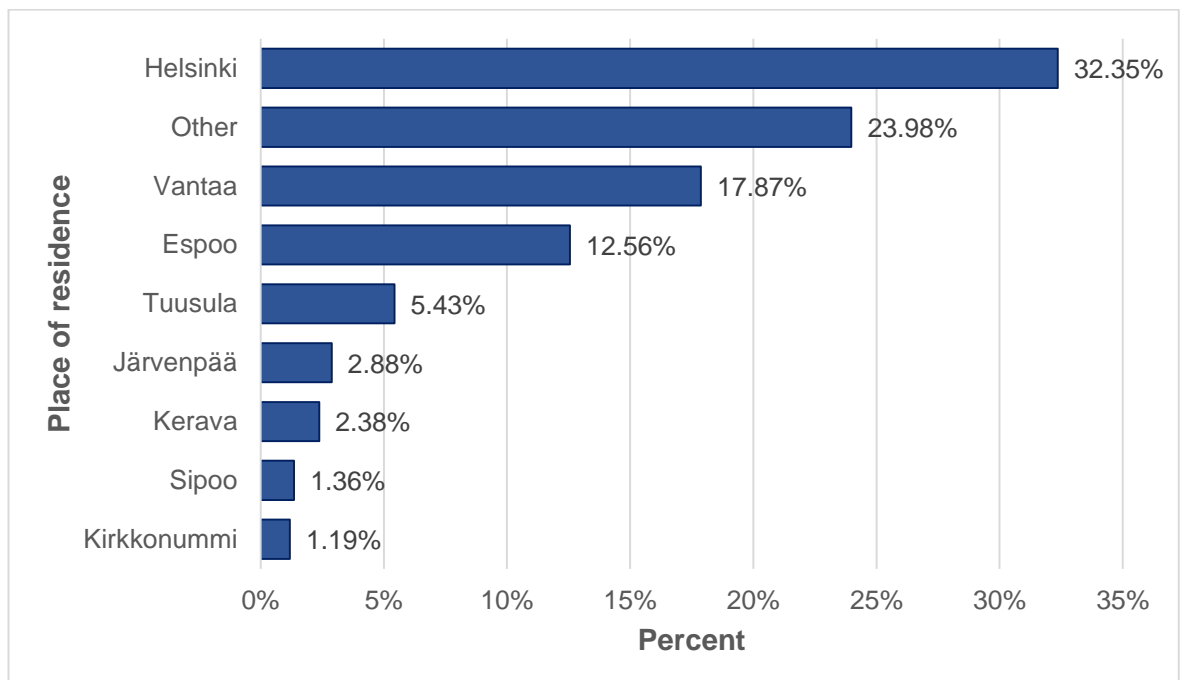


Figure 13. Respondent's place of residence (n=1768)



The other responses were distributed between other cities like: Tuusula, Jäärvenpää, Kerava, Sipoo, Kirkkonummi, Nurmijärvi, Porvoo, Hyvinkää and many other. (figure 13 and 14), most of these being situated in the southern part of Finland and part of the region called the Greater Helsinki (in Finnish Helsingin seutu).



Figure 14. Other places of residence - Word cloud

## Post code

The question related with the respondents' home zip code, was a complete open question, allowing them to type minimum and maximum five numbers (figure 15), the Finland's postal code format.



Figure 15. Post Codes - Word cloud (n=1768)

A technical problem occurred only for respondents using mobile devices to complete the questionnaire. The space allocated was too small, and they were not able to type all five numbers. As a result, they were not allowed to continue the questionnaire. The problem was noticed by participants, the author was informed immediately and she fixed this issue during the first hours after the survey was sent, by enlarging the test box without changing any other settings.

The results of this question proved, there are groups of people in the majority regions, information which can be used when implementing a carpool system. As expected the biggest groups are located in Vantaa (01300 Tikkurila group of 41, 01520 Tammisto group of 36) followed by Tuusula (04300 Hyrylä 32 respondents). The largest group in Helsinki is located in the centre of the city (00100) with 23 respondents (figure 16).

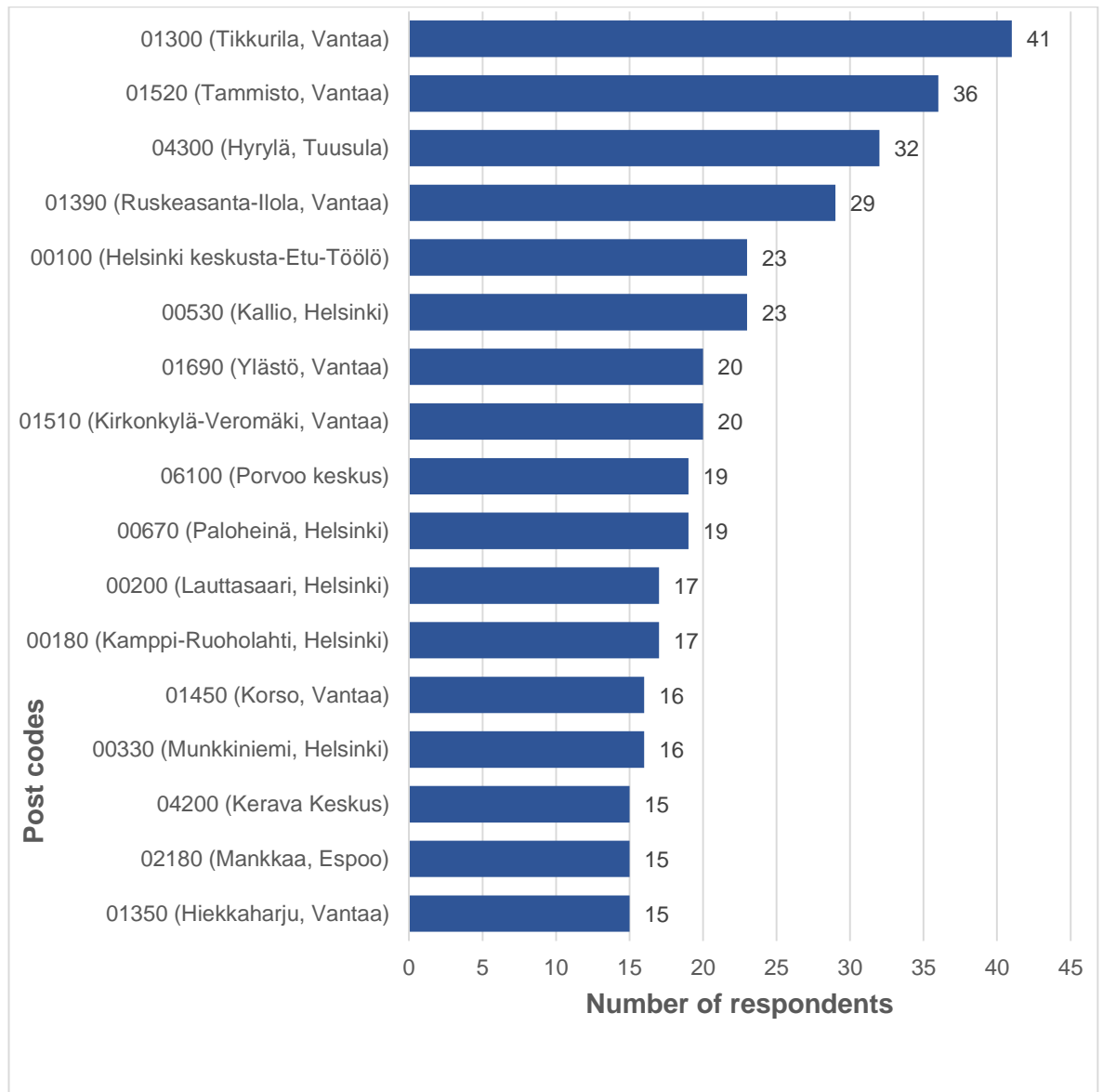


Figure 16. Groups of respondents by post codes

## Work site location

Among seven site locations provided, what stood out was that almost half (48%) of respondents are working at the Crew Centre site (TOKE), 22.6% at the house of travel and transportation (HOTT) and about 14% at Finnair Technical Operations (figure 17). Some other working locations were provided by respondents as open answers, and the text analysis results, emphasized “Tikkurilantie” an address not provided in the options list.

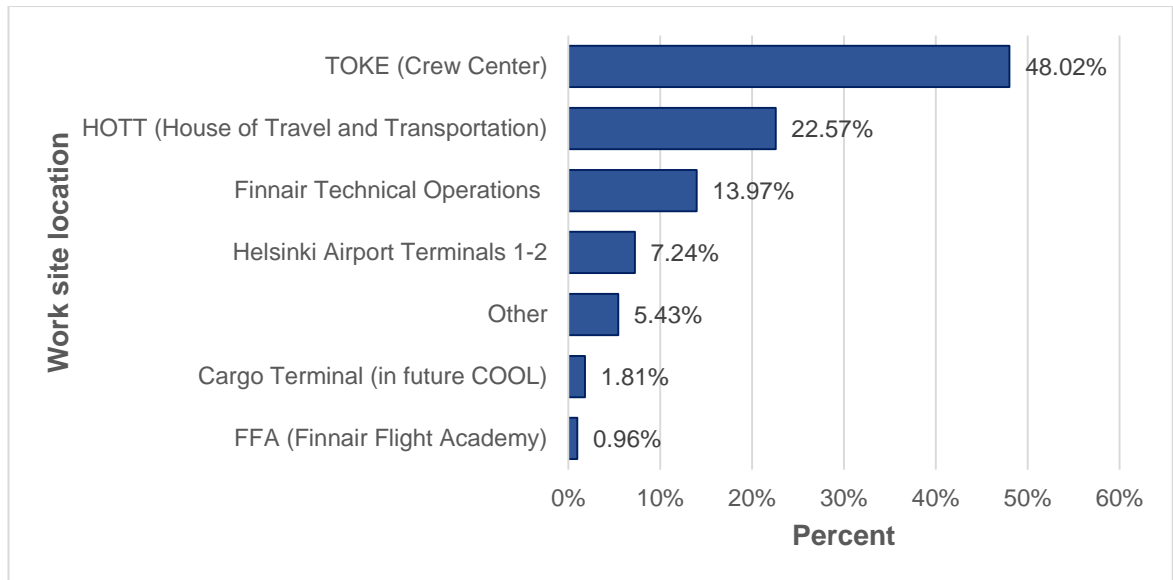


Figure 17. Respondent's work site location (n=1768)

## Length of employment

This question was related to employees' working history with Finnair. It was clearly evident the majority of respondents (86.3%) have been employed by Finnair for at least 6 years. Since the majority is so obvious, no further analysis was necessary to see if other variables are influenced by the length of employment.

## Type of employment

When asked about the type of employment with Finnair, 9 out of 10 respondents stated they are full time employees. Having this clear majority, further analysis will not be needed based on employees' type of employment.

## Type of working hours

With the purpose to segment the participants into subgroups, targeted for the next questions, it resulted in most of employees having irregular working hours (42.7%), about a third, work normal office hours and 20% are shift workers (figure 18). Based on the answer chosen, the respondents were directed to answer the next question according to the survey design (appendix 2).

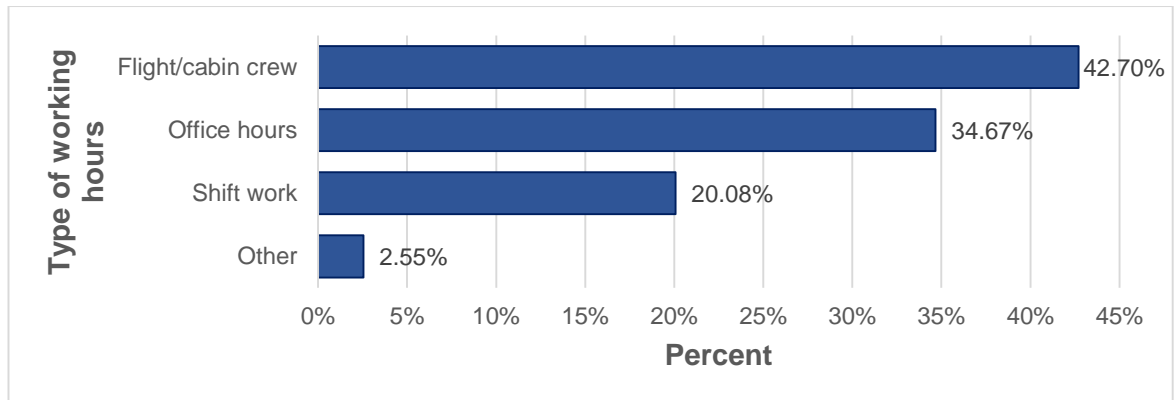


Figure 18. Respondent's type of working hours (n=1768)

## Commuting distance

The question "How far do you live from your work site?" was addressed to find the commuting distance, the employees currently have to travel to work. More than 80% of participants live at over 10 km distance (figure 19), which influenced the choice of their transportation mode.

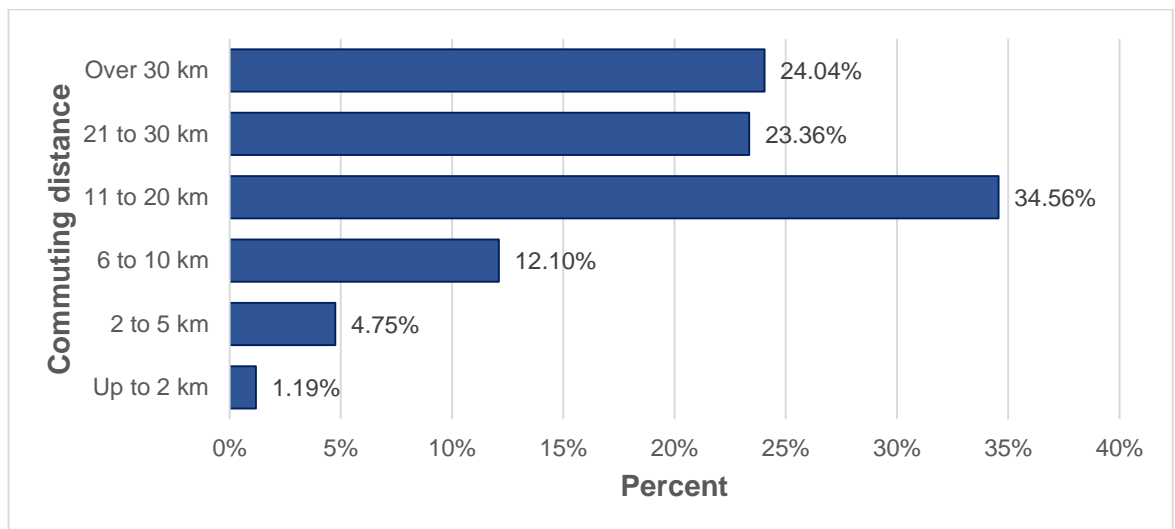


Figure 19. Respondent's commuting distance (n=1768)

Correlating the commuting distance with the transport mode choice, we can conclude the shorter the distance is, cycling will increase and as longer the distance is, car driving increases. However, out of 1768 respondents, over 18% are commuting less than 10 km, a segment for which walking/cycling is possible if the right incentives would be offered.

## Arriving time

The question regarding usual time of arriving at work, was directed to all the employees, except the flight/cabin crew group. Out of 1768 total respondents, 1013 answers have been received for this question.

Due to the fact the office workers percent (34.7%) was higher than the shift workers percent (20.1%), it was expected the majority of employees would arrive at work in the morning time. Since the working schedule of office workers is flexible and shift workers can have different shifts, the respondents were able to choose more than one option.

As a result, is very clear that most of employees arrive at work between 6.00 and 10.00 in the morning (figure 20). In this time interval some arrangements can be made in cooperation with the public transport provider, to facilitate an easier commuting flow to the airport area. Shift workers may also arrive between 13.00 and 15.00 for evening shift, or after 19.00 when the night shift starts.

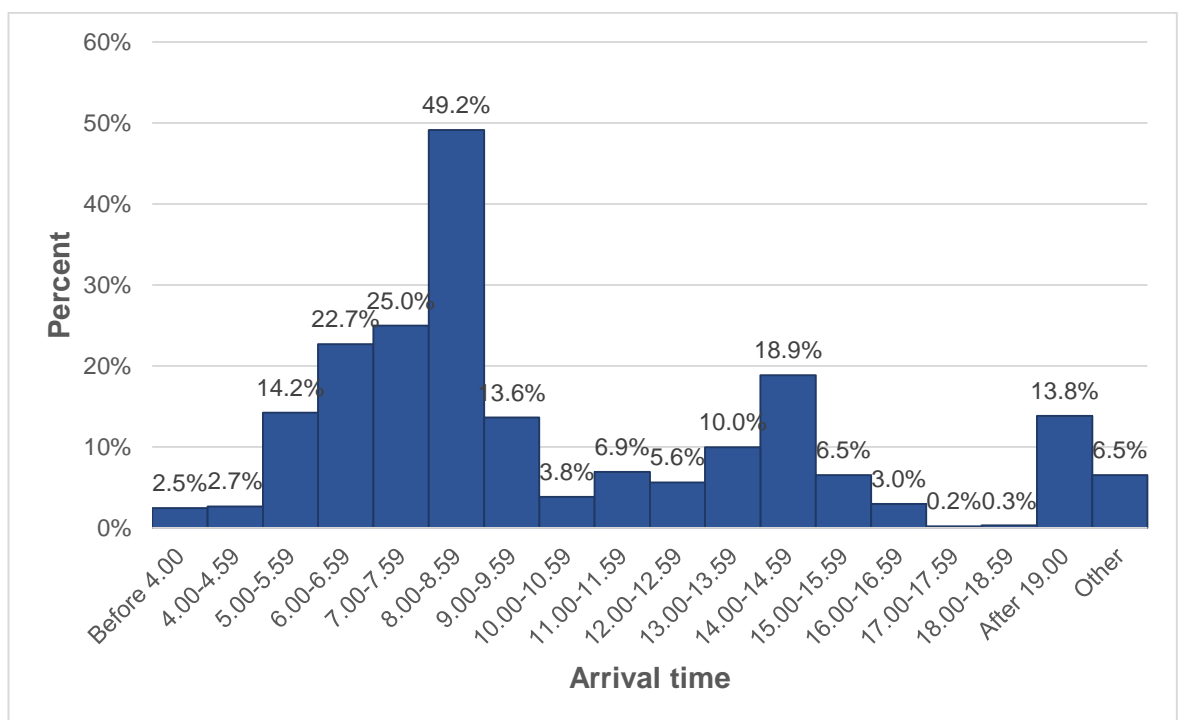


Figure 20. The time respondents usually arrive at work (n=1013)

## Leaving time

According to the results of the previous question, the results of this question, related with the time when the employees leave work, was predictable. Office workers in general, leave the work site between 15.00 and 18.00, as can be seen in figure 21. Shift workers may leave when evening shifts are ending, after 19.00 or in the morning, before 8.00 when the night shift ends.

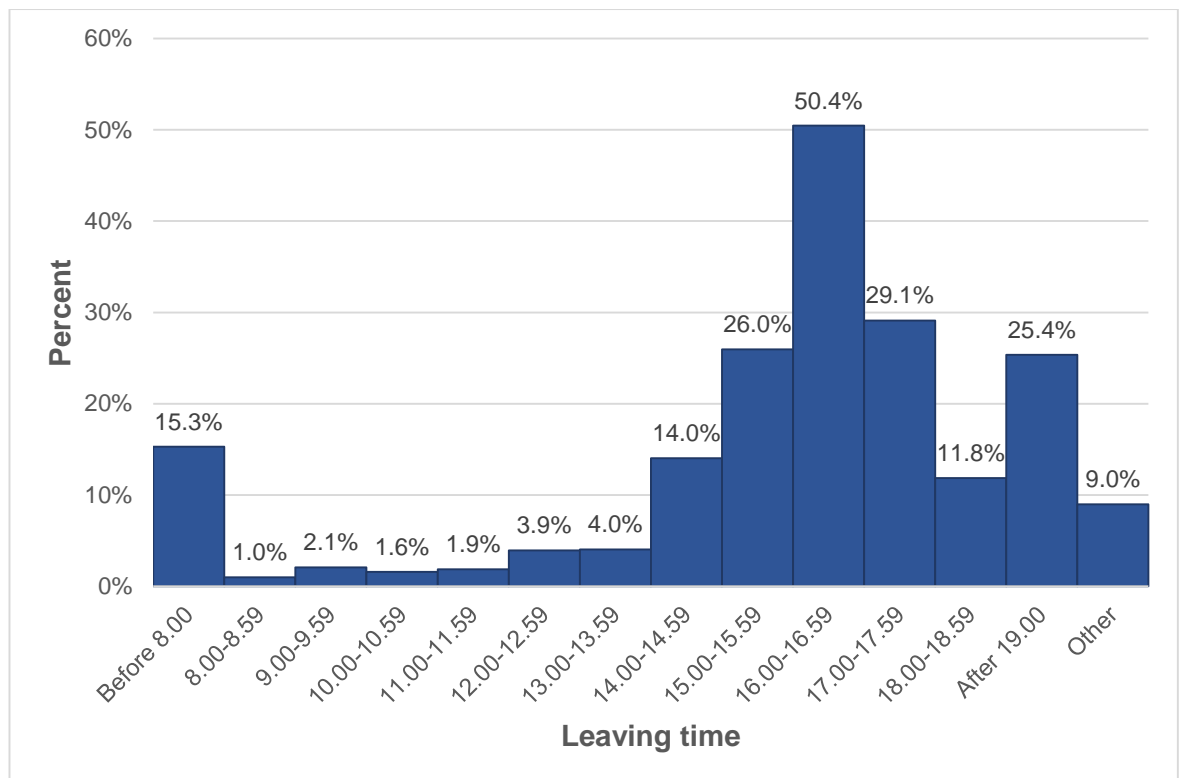


Figure 21. The time respondents usually leave from work (n=1013)

## Disability affecting work transport choice

The question regarding disability that can affect the work transport choice, was asked to identify if this is a factor influencing other variables, related the transport modes normally used. With a clear majority of respondents without any disability (98.8%), it was decided to not study further correlations between disability and other variables.

## 6.2 Employees' current commuting patterns

In this part, the employees travel behaviour and commuting patterns would be analysed and the results will be presented. This will help the company to find the starting point information needed in order to plan commuting improvements.

### Transport modes assessment

When asked to assess the possibility to use different transport modes, in their daily commuting, the majority of respondents stated the car, as driver (86.4%) is the most convenient transport mode, followed by taxi (62.1%), bus (47.9%), car, as passenger (48,8%), car, as driver, with others (47.6%) and train (44%), as it is presented in figure 22.

However, almost 40% of participants, consider that cycling could be possible as well, a high percent considering the location of the working sites. This segment of employees should be encouraged more to cycle, especially during the summer.

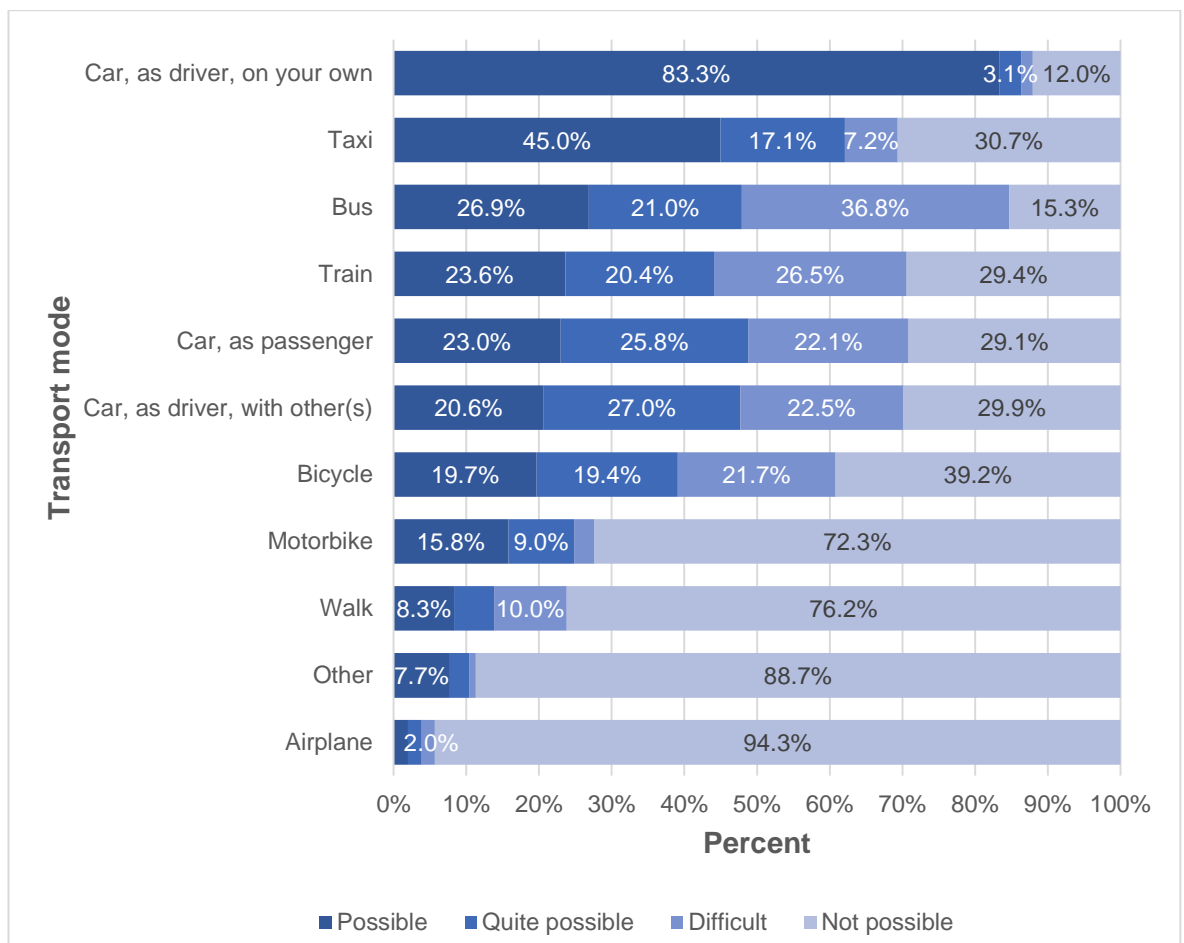


Figure 22. Respondent's assessment regarding different modes of transport (n=1768)

## Commuting modes during winter

In this question the respondents were asked to assess the frequency they use different modes of transport during the winter time. The majority (69.7%) use car, on their own, for daily commuting during the cold season, only 12% using bus more frequently and almost 9% the train (figure 23).

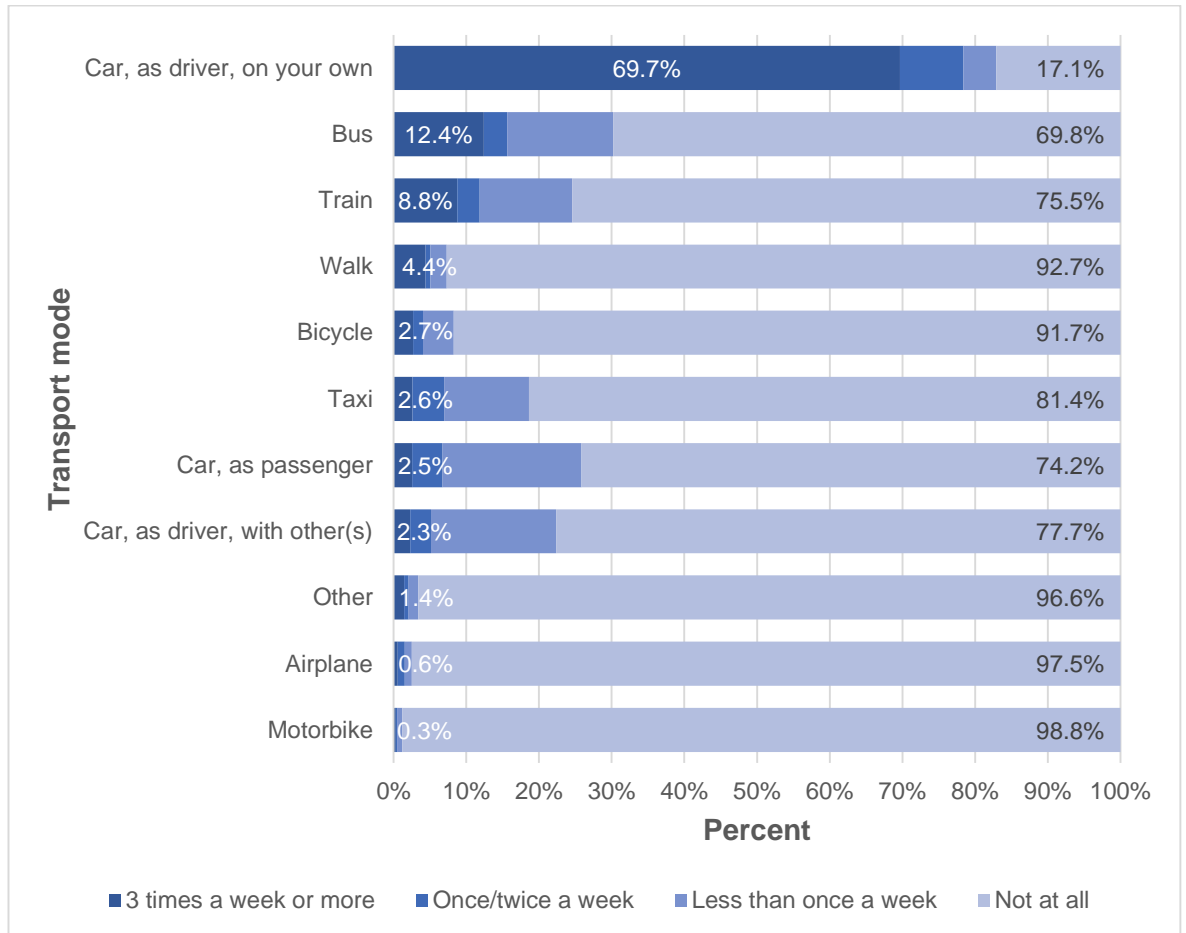


Figure 23. Respondent's frequency use of transport modes during winter (n=1768)

## Commuting modes during summer

During the summer, the percent of employees commuting by car, as drivers, is decreasing slightly to 67.1%, as well as, the bus to 10.9% and train to 7.9%, compared with the winter period (figure 24). An increase of 3.9%, can be notice for respondents commuting by bicycle. In addition, the use of motorbikes become more frequent, from 0.3% in winter, increasing to 2%. All the other methods of transport remain steady, without being influenced by season.



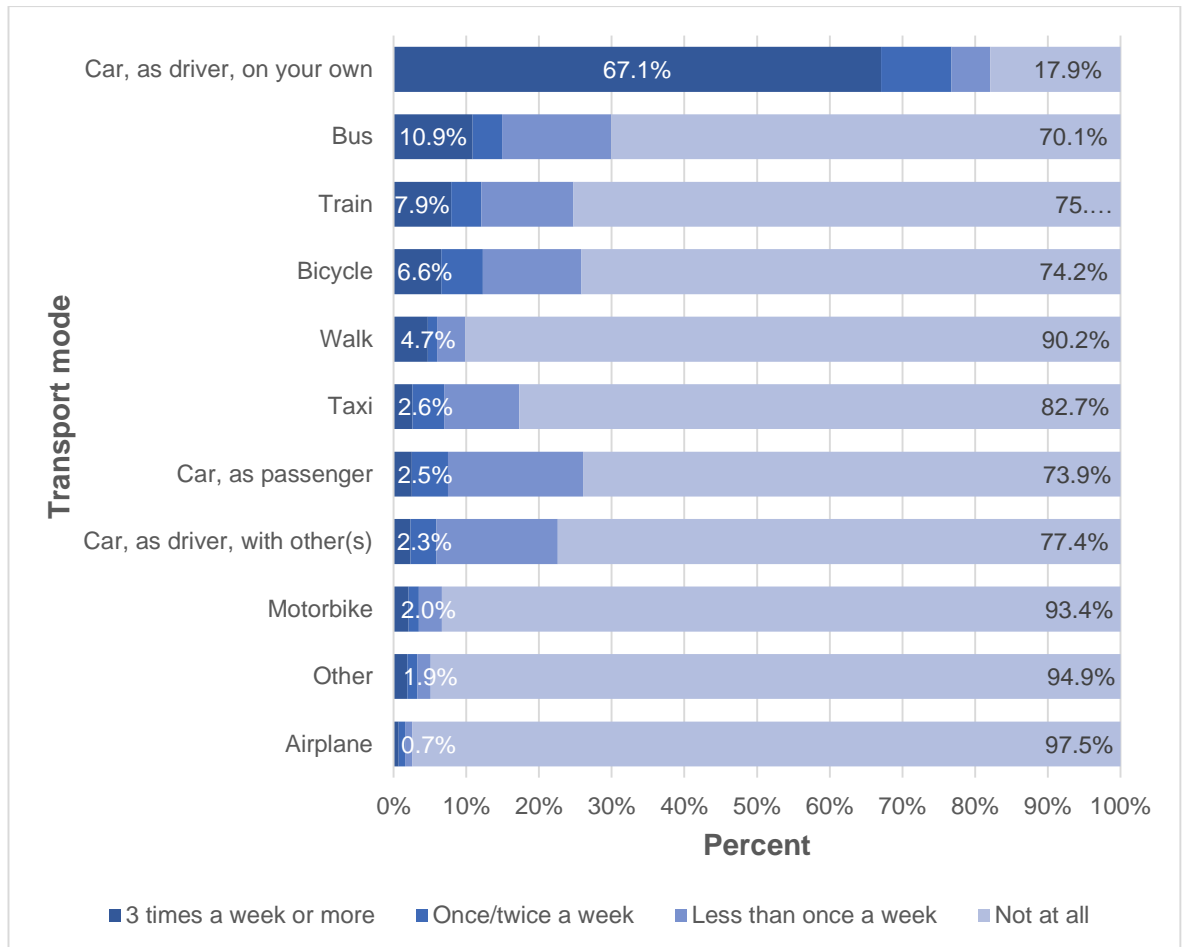


Figure 24. Respondent's frequency use of transport modes during summer (n=1768)

### Second transport mode choice

In case of their usual choice of transport unavailability, most of the respondents (37.6%) opt for the bus, will ask somebody to give them a ride by car (33.1%), will take a taxi (27.3%) or will take the train (25.8%) as can be seen in figure 25.

Knowing all Finnair employees have access to free parking facilities, the purpose of this question was to find out, what form of transport is first in line if the parking spaces would be limited or a parking fee is introduced.

In conclusion, the employees will choose mostly the public transport if the parking would be restricted.

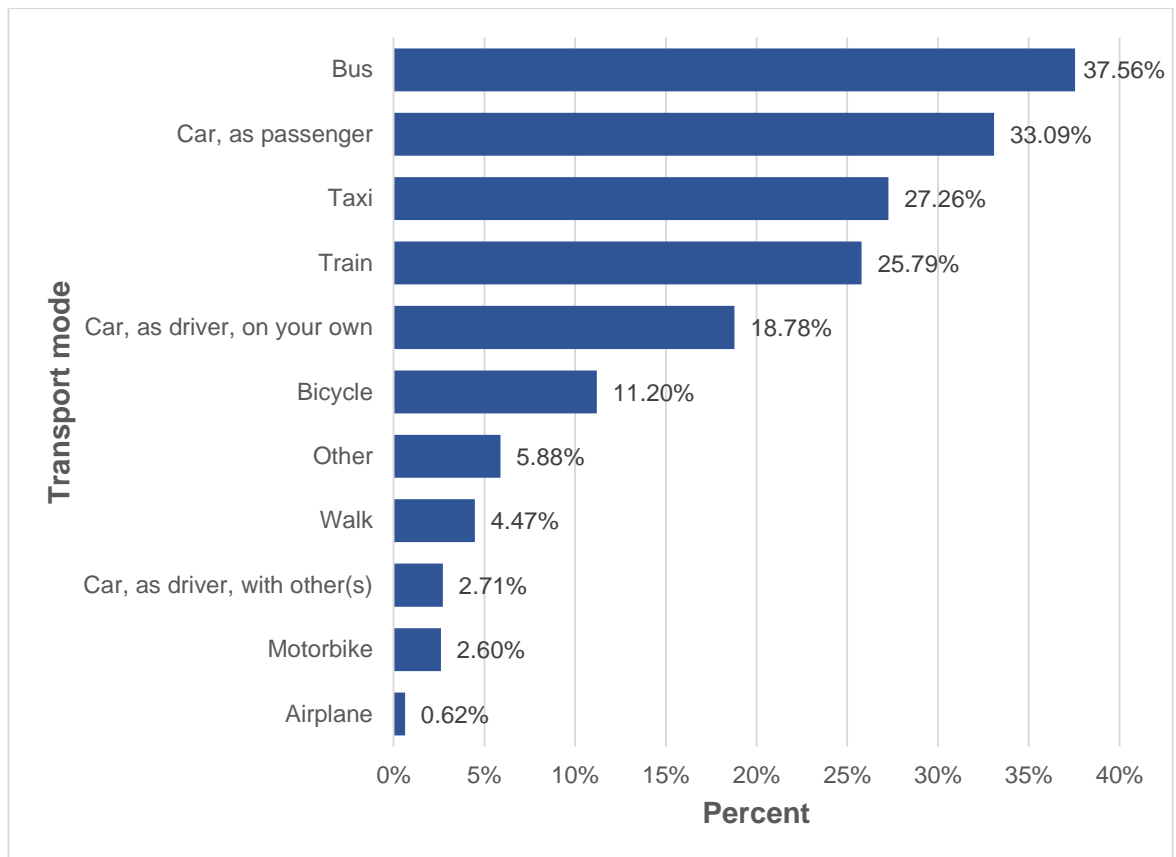


Figure 25. Respondent's transport mode choice in case of first option unavailability (n=1768)

The open answers for other modes of transport (5.9%) brought up some other solutions employees find useful in case their first option is not available, such as: remote working, scooter, rented car, running/ jogging/ roller skating, Finnair bus, Uber or Tram.

### Number of transfers

Analysing figure 26, is clear that over half of respondents have access to direct public transport connections or one transfer would be needed. Taking into consideration this fact and the incentives suggestions the employees made, the number of employees commuting by public transport can be increased if the service would be faster and the price paid monthly significantly lower than using their own car.

One respondent emailed, to complain the survey did not contain any questions related to the time needed when using public transport. That could also provide a deeper understanding, why the employees are preferring the car instead of public transport. The respondent complaining stated, by car he arrives at work three times faster than by bus.

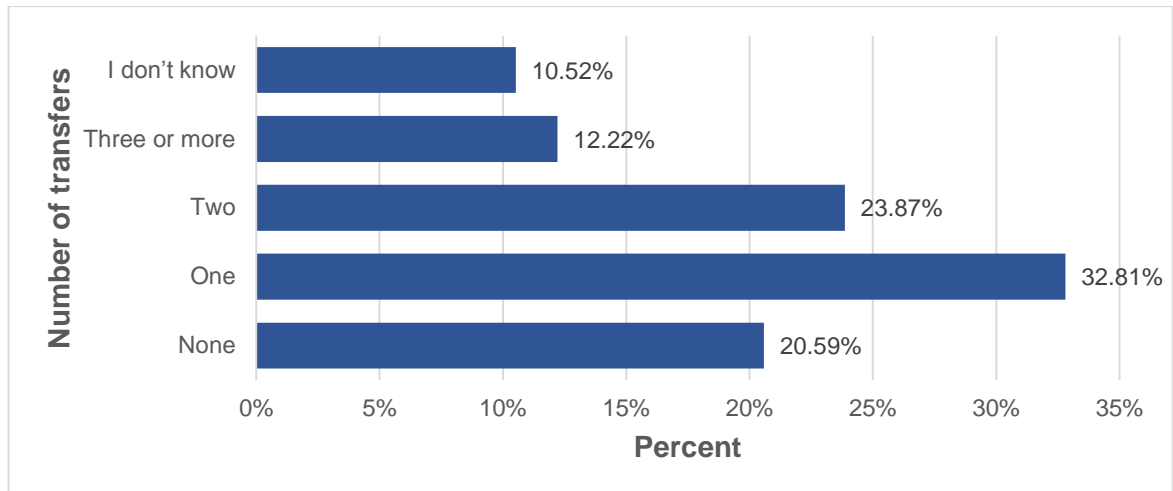


Figure 26. Respondent's number of transfers needed when using public transport (n=1768)

## Accidents

In this survey, the respondents were asked if they were involved in accidents while commuting, to find out if there is a correlation between accidents and the use of a car. 82.3% of participants have not experienced accidents, but 17.7% declared they have been involved in accidents when traveling to or from work. To find out if there is any correlation, the participants answering yes, were directed to the next question, related to the mode of transport used when the accident occurred.

### Accidents by means of transport

Out 1768 participants, only 312 have experienced accidents during commuting, 141 by car, 71 while cycling, 63 walking, 40 traveling by bus, 9 by taxi, 7 driving their motorbike, 3 by train and 13 using other modes (figure 27). Even if the number of accidents occurred by car is bigger, walking and cycling cannot be promoted as safer, since together they count approximately the same. However, according to the figures, the public transport can be considered the safest mode of transport.

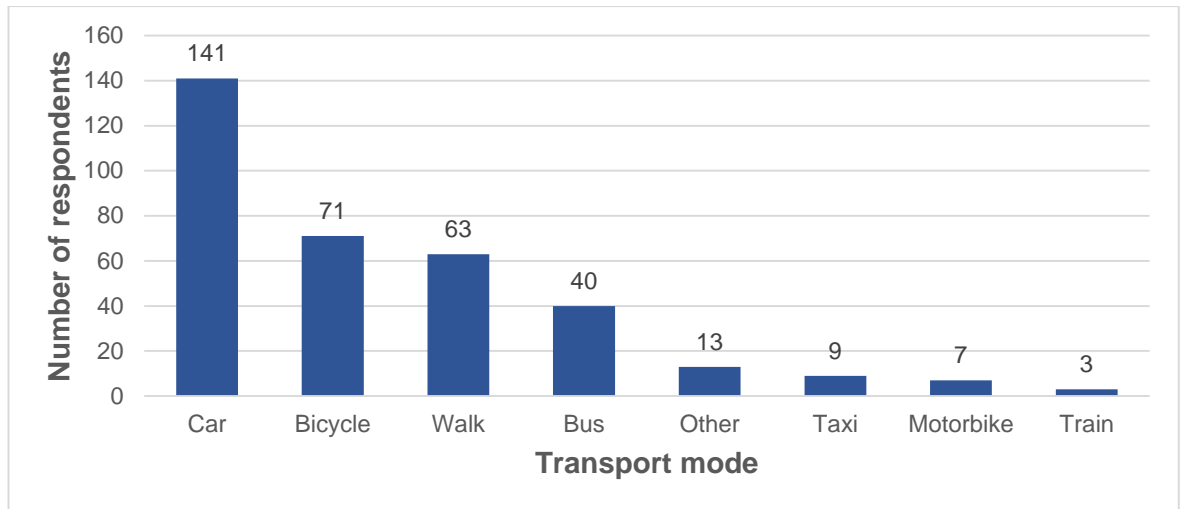


Figure 27. Respondent's accidents by mean of transport (n=312)

### Free parking access

Finnair offers a free parking facility for all its employees. Flight/cabin crew have the possibility to choose between parking space and paid taxi service during night hours. The objective of this question was to find how many employees benefit from free parking space. 83.1% of respondents have access to Finnair's free parking lot and 16.9% opted for the taxi service.

### 6.3 Employees' motivation drivers and incentives

This part of the questionnaire had the purpose to investigate, what would motivate people to change their current commuting habits into more sustainable ones. This information can help the company to build an incentive scheme, to encourage the positive change.

#### Interest in environmental friendly transport alternatives

When asked, about interest to try different modes of transport to work, the respondents showed the biggest interest for taxi arranged by the company (37.3%), surprisingly followed by the bicycle and train with a similar percent's of 27% (figure 28).

Car sharing and ride sharing methods seemed to represent quite a low interest among Finnair employees. One problem raised during the survey was the respondents could not make a clear difference between the terms, which in literature are explained very similarly.

However, carpooling was approximately the same level of interest as the bus, which represented almost a quarter of all participants.

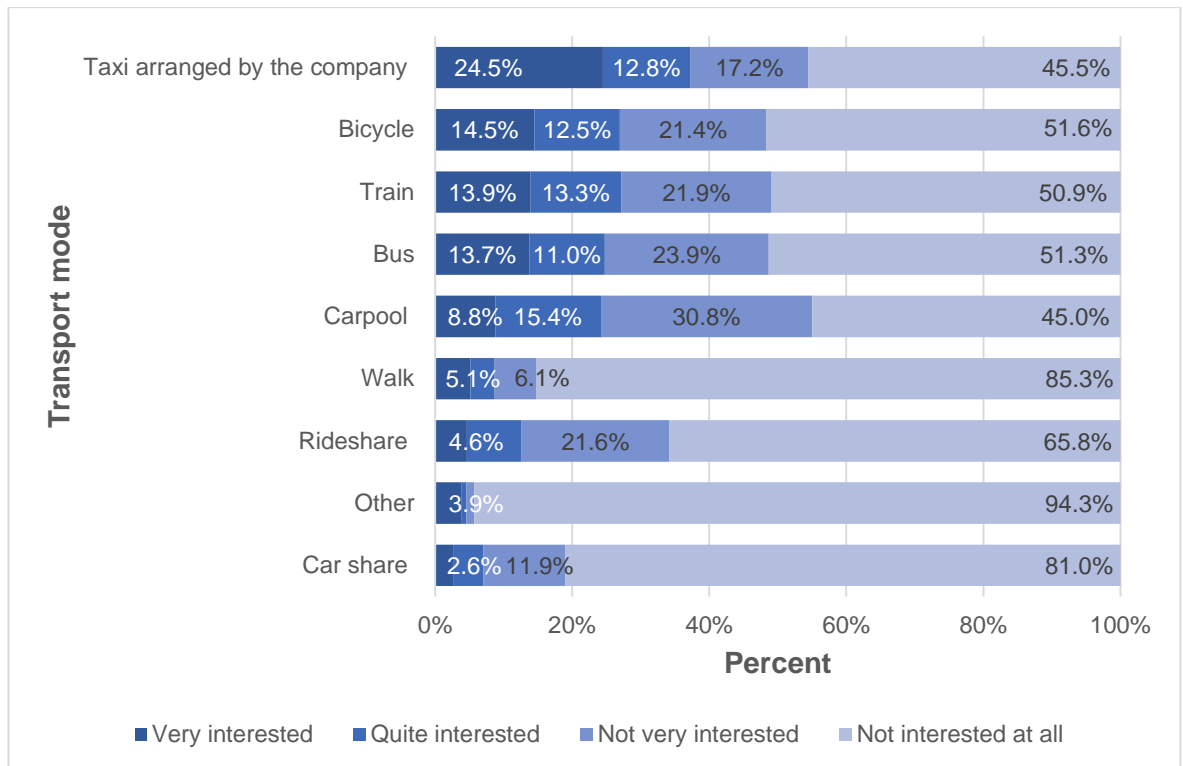


Figure 28. Respondent's level of interest regarding environmental friendly transport alternatives (n=1768)

From the results of the hypothesis tests conducted (appendix 4), it was observed that the interest to try commuting by bicycle, bus and car share, are not normally distributed according to gender, males being more interested in cycling and car sharing and females in commuting by bus.

### Incentives to motivate walking or cycling

The interest for cycling was pretty high (27%, see figure 28), showing with few changes, the number of employees commuting by bicycle could be increased. The most motivating incentives, found from analysis, were drying rooms and lockers at work (43.1%) and secure bike parking (42.7%) (Figure 29).

Since female respondents were not presenting a high interest in cycling, the incentives were also not normally distributed, the only exception being the course to practice safe cycling (appendix 4). This could show the females willingness to try cycling, but they are not

confident enough to do it. With a proper cycling training, the number of female employees commuting by bike could be increased.

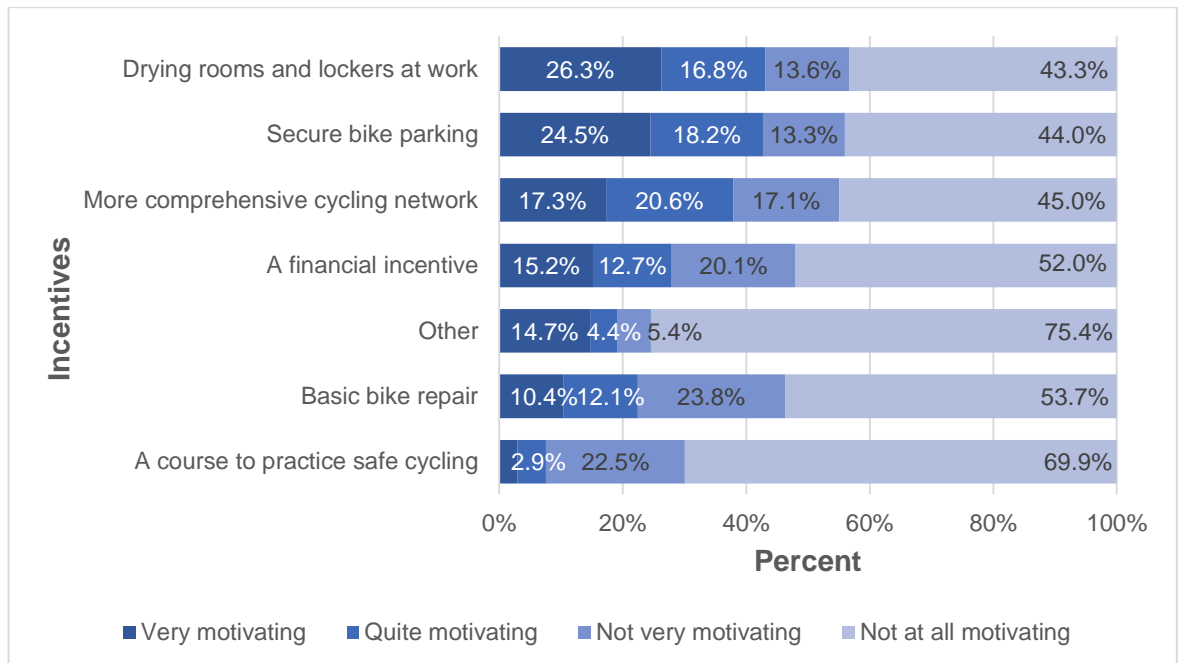


Figure 29. Respondent's level of motivation to different incentives to walk or cycle to work (even part of the trip) (n=1768)

Knowing the company provides the locker facility, a deeper analysis has been done to find out why this incentive is the most important. When reviewing the open answers, the respondents were asked to give, the majority were complaining the size of the lockers is not appropriate and the equipment and personal things cannot fit in the current locker's space.

Beside bigger lockers, other suggestions made by the employees were:

- shorter distance
- moving near the work site
- having their own lockers
- shower with sauna
- shower time included in working hours
- walking/cycling time included in working hours / extra day off / compensation for 2 work hours/week
- bicycle provided every 2 years
- bike repair service
- bike rental service during the summer
- sheltered bicycle storage
- secure bike parking area, near the train station
- better maintained paths during the winter
- better cycling networks
- better health conditions

- better food
- cheaper flight tickets.

Between financial incentives, the respondents were asked to suggest, were identified:

- a range between 20 and 500 euro per month
- a range between 500 and 2000 euro per year
- the same amount as the maximum monthly car allowance
- km based compensation
- equipment compensation
- the amount of regional ticket price
- bicycle/electric bicycle paid by the company
- free sport pass
- 2% increase in salary
- Finnair Plus points.

### Incentives to motivate the use of public transport

When asked, how motivated are the predefined incentives provided to encourage the use of public transport for daily commuting, 64.1% found, more feasible bus routing as being the most motivating factor (figure 30). Re-scheduled public transport services, to fit better their working hours (59.6%) and the reduced cost of public transport (56.1%) represent a good reason to use it more often.

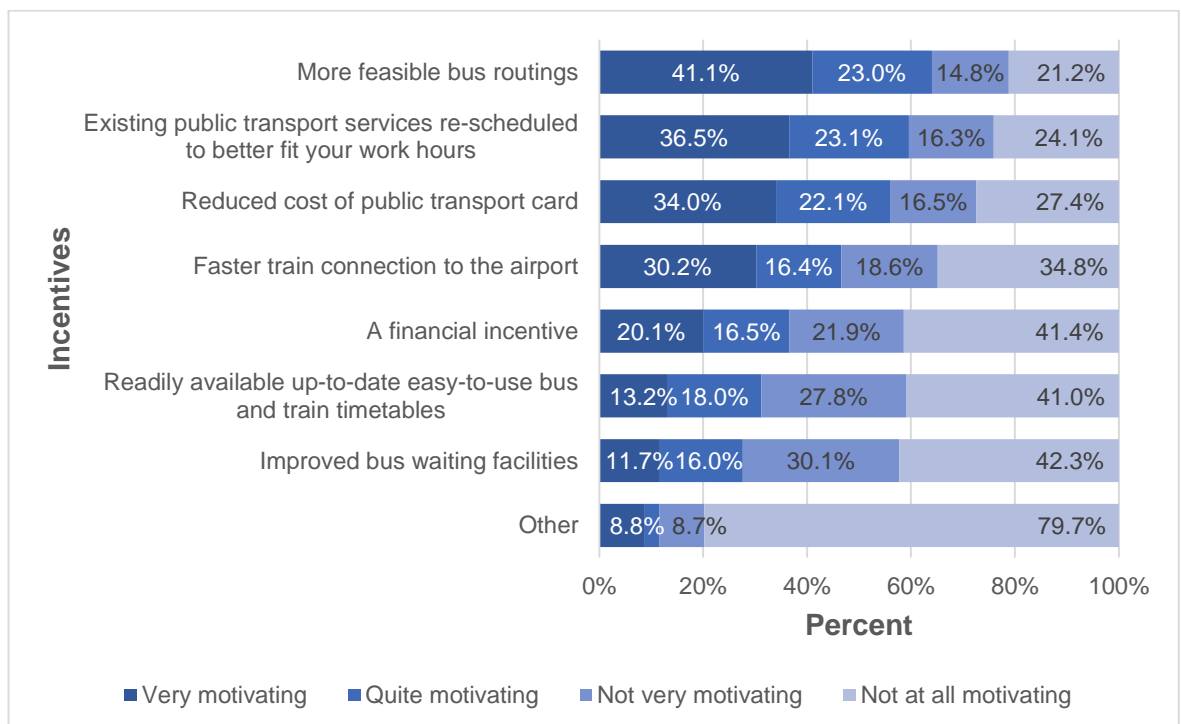


Figure 30. Respondent's level of motivation to different incentives to use public transport for daily commuting (n=1768)

Analysing the open text answers, we got a deeper understanding of what the employees want:

- as financial incentive the range was between 25 and 2000 euro per month
- regional ticket paid by the company/ discount
- direct public transport
- shorter walking distances
- faster public transport service
- more options
- less crowded busses
- suitcase storage place
- better accessibility
- express bus service
- parking fee imposed
- company car in case of emergency
- safety working environment near HOTT
- 561 bus stop placed closer to HOTT
- proper walking routes to bus 540
- free sport pass

### Incentives to motivate the use of carpools

Carpooling seemed to be the most known concept related with arranged commuting methods, where more employees are using a single vehicle to make the journey together. Even if the definition was provided with the question, to make sure the respondents will understand the same thing as was intended by the researcher, since there are different definitions available in the literature, is difficult to say that everybody understood it in the same way. From the figure 31, we can notice that a reserved carpool parking space in a prime spot (32.7%) and a carpool database matching colleagues with similar travel patterns (34.7%) are more motivating than financial incentives (25%).

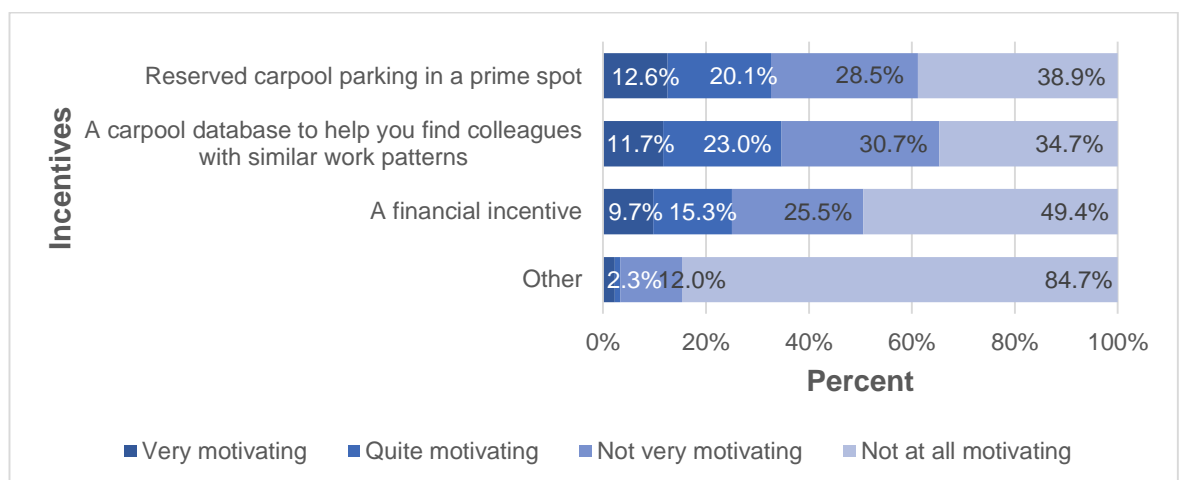


Figure 31. Respondent's level of motivation to different incentives to use carpool (n=1768)



Carpool in other definitions reviewed, define the company owned cars available for employees to use if they are arranging to make the journey in groups. We could notice some employees were referring to this definition when expressing their open suggestions for incentives the company can offer to encourage carpooling:

- company car provided
- travel costs paid by company
- fuel paid by company
- travel insurance for passengers paid by company
- reduced monthly payment for leasing cars used for carpooling
- parking spaces for charging electric vehicles
- lunch provided
- km based compensation
- free public transport ticket
- 50 to 1000 euro financial incentive per month
- from 1000 to 5000 euro per year
- 10 to 20 euro per ride
- 3 to 5 euro per ride/person.

Some of the employees were expressing their willingness to pay any reasonable amount, to people ready to give them a lift in their car, this information suggested there are people interested in using a carpool data base if this service could be arranged.

#### **6.4 Reducing the need to travel**

This section of the questionnaire, intended to research the possibility of reducing the commuting journeys by remote working opportunities. This factor could have a great impact on the overall future results, if the company would allow employees to work from their own homes more often. This would reduce the pollution of that person, for the days he does not commute to work, to 0.

##### **Remote working possibility**

This question was addressed only for employees working normal office hours. Asked if they have the possibility to work from home, out of 613 respondents, more than half stated that it is possible in their cases more or less often. Almost 45% never had the possibility to work from home (figure 32).

Considering that more than half can sometimes work remotely, we can conclude the commuting journeys can be reduced, by offering workers the possibility to work from home

more often. Here, the work effectiveness factor should be taken into consideration before deciding, if this aspect is feasible or not for the company.

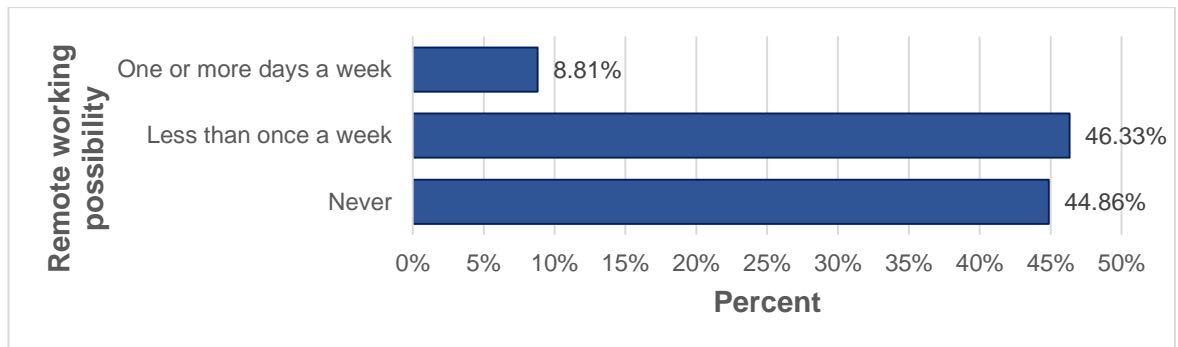


Figure 32. Respondent's remote working possibility (n=613)

### Interest for remote working

When asked, if they would be interested to work from home (figure 33), the biggest majority of office workers expressed their interest and only 3.4% were not interested at all. Out of 613 respondents 5% stated in their particular cases, remote working would not be possible.

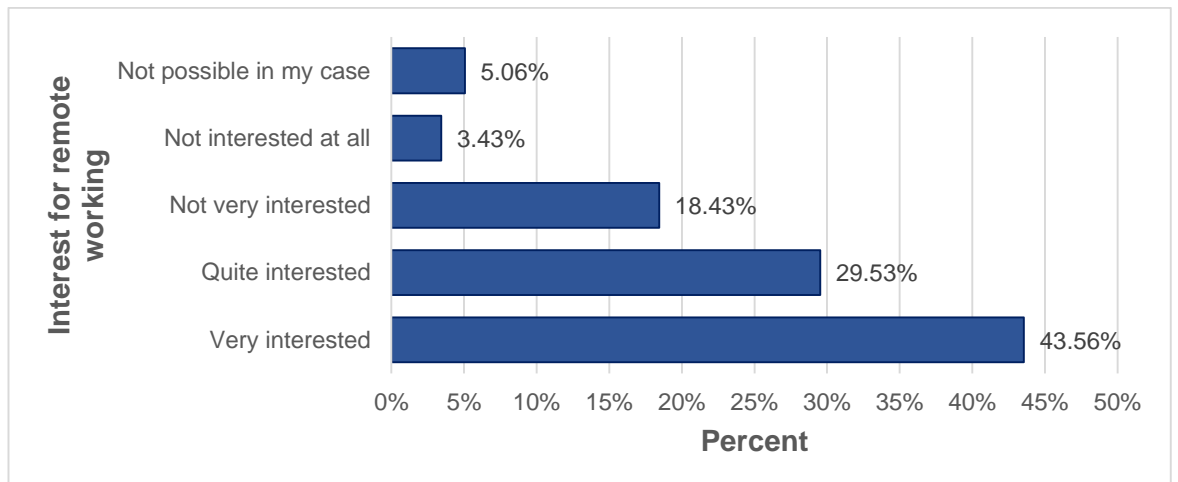


Figure 33. Respondent's interest for remote working (n=613)

### Travel between work premises

The survey participants were asked to approximate the frequency of traveling between Finnair's premises. According with the responses received 4 out of 10 employees do not travel within the premises at all, 23.7% need to travel less than once a week and about a third are traveling more than once a week (figure 34).

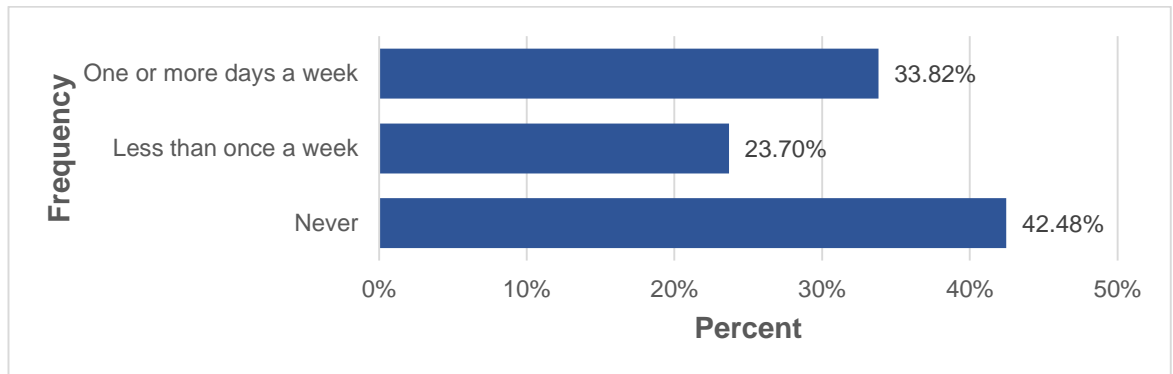


Figure 34. Respondent's frequency of travel between Finnair work premises (n=1768)

### Distance travelled between work premises

As it can be seen from figure 35 the distances approximated by employees are quite short. Only about 12% of participants have to travel longer distance than 5 km between premises, in a normal working day.

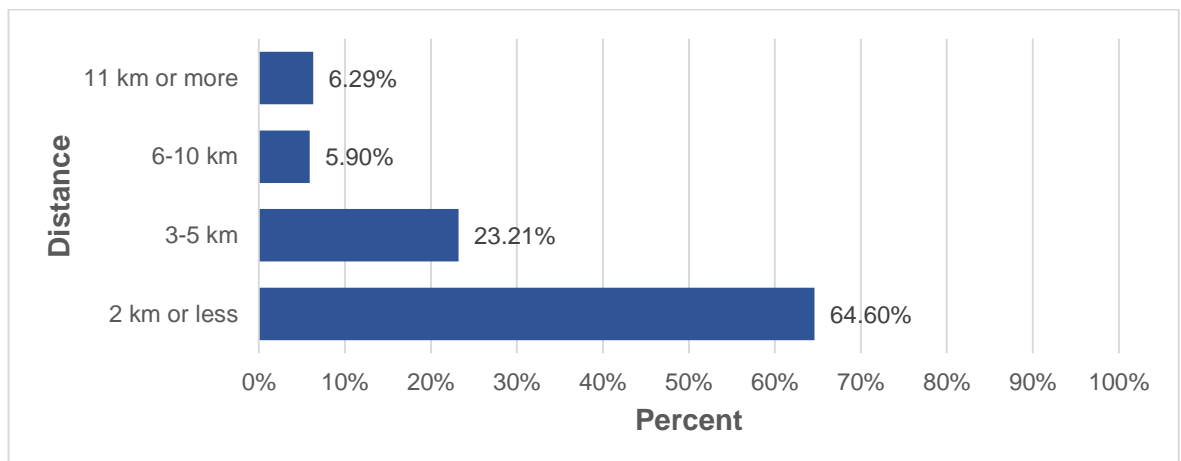


Figure 35. Respondent's normal distance travelled between Finnair work premises (n=1017)

### Mode of transport use between work premises

Respondents were also asked; what mode of transport they use to travel the distances between Finnair work premises. The majority, representing 75% are usually walking if the distance allows or use the car (48.4%) when they need to travel longer distances (figure 36).

Since most of participants travel less than 2 km, when analysing the open answers, we found out that the crew car/bus, scooter, is also used and for longer distances groups of employees use the car share to make the journey together. For business trips, the airplane has been considered the best solution.

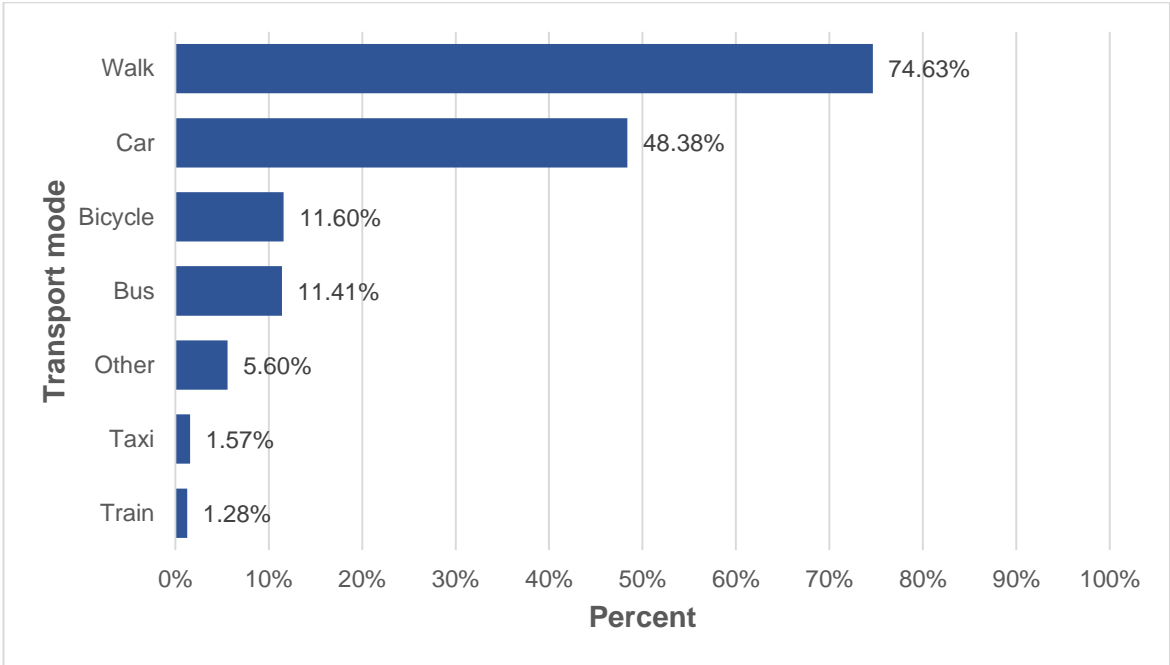


Figure 36. Respondent's form of transport to travel between Finnair work premises (n=1017)

The results are described in detail the current commuting habits of Finnair personnel, highlighting the potential strategies to be implemented to increase the interest and use of more sustainable alternative modes of transport. The results of the commuting survey are summarized in table 11.

Table 11. Commuting survey results summary

Survey topic	Results
Place of residence	2/3 in the capital area
Commuting distance	18.04% live at a distance < 10km 81.96% live at a distance > 10km
Interest to try different modes of transport	Walk – 85.3% are not interested due to long distances Bicycle – 27% would be interested to try Taxi – 37.3% are interested when arranged by company Train – 27.2% would be interested Bus – 24.7% are interested Carpool – 24.1% are interested
Current commuting methods	68.4% commute by car, as driver, on their own (average of values according the season) 11.6% commute by bus 8.3% commute by train 4.6% commute by bicycle 4.5% commute by walk 2.6% commute by taxi 2.5% commute by car, as passengers 2.3% commute by car, as driver, with others 1.1% commute by motorbike 0.6% commute by airplane
Second alternative	37.6% would use the bus to commute, if the usual form of transport is not available
Number of transfers when using public transport	53.4% need one transfer of none 36.1% need two or more transfers
Accidents while commuting	17.7% have experienced at least an accident from which 45% occurred by car
Access to free parking	83.1% have access to free parking
Incentives to walk or cycle	43.1% want drying rooms and lockers at work (more specifically, the size of the lockers was found as being inappropriate)
Incentives to use public transport	64.1% want more feasible bus routing
Incentives to use carpool	34.7% wish for a carpool database to help them find colleagues with similar commuting patterns
Remote work possibility	55.1% have this possibility
Travel between work premises	57.5% travel sometimes, from which 64.6% 2 km or less, and 74.6% are walking this distance

## 6.5 Finnair's Internal Communication

An analysis has been done to evaluate the Finnair's internal communication, based only on the qualitative research conducted, interviewing five of the company's permanent employees. The results helped the author to understand the employees' general perception of the internal communication function and channels used inside the company.

Internal communication is described by employees as "a bit scattered". The majority of interviewees agreed there are many channels from which they can choose to get information. Moreover, they consider the internal communication "has taken huge steps forward" in the past few years. New communication channels make information available, regardless of the place and time.

Yammer (a Microsoft Office platform, offering a wide variety of tools to make easier the team collaboration, documents creation and sharing, group's creation and connections with other colleagues within the organization (Yammer 2016)) is "still looking for its audience, and intranet is not interactive any more".

The information flow inside the company from management to employees, is done via Intranet and Outlook, as well as, scheduled regular meetings, internal newsletters or other change management meetings, emails and discussions around work tables.

The working atmosphere at Finnair is described as being informal by all interviewees, when interacting with department colleagues and co-operation partners, and formal when contacting the personnel from other Finnair departments. They also agreed employees' involvement in internal communication has visibly increased during the last years.

The communication between employees depends on each of their attitudes and personality. "Some do remember to share their information" and they do it in a powerful and informative ways, some "people talk or forward e-mails" and others just "want to keep the information inside a dedicated group". The biggest challenges of general communication between employees, are considered to be the typical Finnish shyness and very "holy" personal space as one of the interviewees has stated.

The amount of information communicated inside Finnair can sometimes be "a bit confusing" for employees, offering a lot of information "in many different places". As a consequence, they are not sure where to find the information they need when they need it. But, they believe that it "is always good to have more information than less". They consider the

biggest challenge as being the lack of time to follow all channels, as “different types of information are shared in different channels”.

The quality of information communicated inside Finnair is good and concise, communication staff being well prepared to send relevant information. Employees are busy, without available time to read long pieces of information sent through Intranet or by email. When evaluating the email communication channel, the employees believe that “there is still room for improvement”. The factors employees consider important, to make them read an email or article on the intranet are: relevant information, visual presentation, the headline, clarity, length of the message and the time of receiving the information.

The main internal communication channel, used at Finnair, is Intranet which is mainly used for sharing the information. Yammer, is the most used channel for discussions, as well as info screens, shared drives, Skype, face-to-face info sessions, team meetings. Email is also used to ensure information flow. All communication channels have a specific role, and depending on the issue, one or multiple channels are used to communicate the information.

The channels consulted first when employees hear rumours insight the company and they want to confirm that information are Yammer, where people are able to comment and discuss different issues, Intranet, Skype or they will confront their direct supervisor, to ask if rumours are true or not.

Depending on the issue, general feedback and suggestions can be given face-to-face to the direct supervisor, by email, by posting to Yammer or leaving a comment on news articles on the intranet. Feedback on operational issues must be given through specific reporting channels.

When asked, how they would improve the internal communication at Finnair, the interviewees have listed different opinions such as:

- Reduce the number of channels used. There is no need for so many channels, Intranet and Yammer could be just enough. There is not enough time to go through all the channels when doing operational work. The information should be "packed" in one place and be accessible to all.
- To be more interactive and add more “human touch” by the side of the informative messages, such as stories and "behind the scenes". In such a big company with many interesting people are many stories to be told.
- Introduce more video content.

- Make Yammer a more attractive channel, by trying to cut off the negative way of commenting and by applying the rules.
- By “enhancing video communication”, which has started relating to the major implementation projects, as well as, leadership team communication. “Videos are easy to watch quickly and they still have a novelty aspect in internal comms so people are more likely to check them than traditional written communication”.



## 7 BREEAM travel plan implementation

This chapter will present the conclusions of the research study and recommendations for implementing the travel plan through an extensive internal communication campaign. Beside these, the author will provide suggestions for further research she believes would be beneficial for the company, as well as, a reflection of her own learning during the thesis process.

### 7.1 Conclusions

This subchapter intends to emphasise the significance of this research for the commissioning company when implementing the BREEAM travel plan and to answer the investigative questions in order to conclude an answer for the research question: “How Finnair can change the employees’ work related travel behaviour, into a more sustainable one?” which will be described in detail in the recommendations subchapter.

Communication about your travel plan starts the moment you send out your staff travel survey or set up initial discussions groups. Travel plans are intended to bring about change, calling for skilful communication to ensure that the prospect is received in a positive spirit and that no one feels under threat. (DfT 2008, 22.)

The outcomes of the research conducted, provide significant value for the commissioning company, identifying the extrinsic rewards to motivate its employees to embrace the change and become a more sustainable company with their help. Moreover, the results provide answers and reasons behind employees’ behaviour, making more easy to understand why people are commuting as they do and what should be changed in order to facilitate an easier transition to environmentally friendly solutions. According to the results, it is clear at Finnair there is plenty of room for improvement related to commuting and has great chances to gain the BREEAM credit for travel plan. Therefore, with the right incentive scheme, the commuting shift toward sustainability is achievable.

The feedback collected from 5 Finnair office employees, revealed important insights regarding internal communication. This helped the author to see the big picture of this function and to answer the IQ 2 (What internal communication approach does Finnair currently have)

Finnair internal communication is in continuing development. Recently, more channels have been introduced and others have been terminated (e.g. internal magazine). According to the interviewees’ opinions, there are too many communication channels and not

enough time to use them all. However, analysing the responses more carefully, only a few of the channels appear to be preferred by the majority of qualitative research participants; they are: intranet, Yammer, email and face to face communication. In the future, the company can focus their communication on the channels utilised more frequently by the staff and terminate the ones with a reduced level of interaction and engagement.

In general people have a positive perception about communication inside of Finnair organisation and the quality of the information received. Even if they agree there is still place for improvement, they appreciate the communication is more and more informal and a positive difference has been noticed in peer-to-peer communication, as well as, in communicating with the management level.

The Finnair internal communication approach is starting to be in line with new trends, introducing more video content and increasing the employees' engagement, but yet, the written content is predominantly among channels.

To answer the IQ 1 and IQ 3 related the current commuting employees' behaviour and incentives to motivate them to change, a deep analyse of the survey responses has been conducted, leading to a clear conclusion. The majority of staff members are commuting by car (73%) and in most cases as driver, on their own. All the other modes of transport are far behind in employees' interest level. Considering the location of the work site and the free parking facility Finnair offers its employees, is somehow understandable why they prefer the comfort of their own car in detriment of choosing the public transport hassle. However, in the case of car unavailability, the public transport methods were among the first options the employees would use to travel to work.

The research results suggest some facilities improvements such as bigger lockers, secure bike parking and a comprehensive cycling network would motivate employees to cycle more often. To encourage the use of public transport, more feasible bus routing, re-scheduled transport services and a reduced cost would need to be arranged.

Regarding other motivators to change the current commuting behaviour, the extrinsic rewards preferred are differed according to the transport method in question. Some common incentives identified along different modes of transport proposed was: a public transport monthly ticket paid by the company and including the journey time as working time.

## 7.2 Recommendations

This subchapter is presenting a variety of recommendations, which the commissioning company can utilise to implement BREEAM travel plan through internal communication, divided into communication and transport related recommendations.

### Communication

The travel plan implementation should have clear goals and **SMART** (specific, measurable, achievable, realistic and timed) **objectives**. The research conducted for this thesis purpose, shows the current situation regarding employees' commuting behaviour, representing the starting point to calculate the commuting carbon footprint in order to set a SMART objective to achieve the desired result.

For example: By the end of 2020, the employees' commuting footprint will be reduced by 20%. This example has a specific target to reach, reducing 20%, a result which can be measured compared with the present result. The company can decide what goal could be achievable and realistic to set, since the changes cannot be done overnight. That is why the time allocated to reach the goal should be very clear and long enough to make it happen in reality (e.g. 5 years). At the end of the predetermined period, it will be easier to measure and assess the results and decide if the objective was reached or not.

**Keep employees informed**, make sure they have a clear understanding about all the changes planned in order to improve their current commuting habits, presenting the reasons why the changes are needed, as well as, their and the organisation's benefits. The interview research showed Finnair used many communication channels and employees lack the time to check all the sources of information. To be sure the people targeted for a sustainable commuting campaign will be reached, the company should send the messages through the existing channels and redirect the interested ones to other platforms. Remember employees to share the message with their colleagues, a message received from somebody they know personally is more likely to be read.

When communicating internally messages to improve the employees commuting modes, is better to **present the benefits and advantages** of walking and cycling if the distance allows, for taking the public transport or for using a carpool system, in the most appealing way. Let's not forget employees are consumers as everybody else. The best way to present the message could be in the form of **story articles** presented by some of their peers, which represent great role models of commuting to work. Another way could be creating

**storytelling videos**, presenting the benefits of public transport such as saving money, the possibility to read, socialize, work or relax during the time they travel, in a way they can relate with the characters in these videos. As some of the research interviewees mentioned, videos are easy to watch quickly and having a novelty aspect in the company's internal communications, people are more likely to watch them.

The company's intranet can facilitate the information to reach the **right audience**. The messages should be sent systematically, consistently and continuously in order to increase employees' engagement. However, try to avoid overloading the employees with too much information. A poor internal communication is the major reason of change implementation failure. According to the interviews conducted, people already feel it is too much for the time they have available, but, they also believe it is always better to have more information than less.

**Communicating sustainability** does not have to make people feel guilty or uncomfortable if their life situation does not allow them to change. The company has to understand that working parents with kids at day care or school, cannot afford the time of relaxing on a bus when they are in hurry to get their kids in time. Others may have temporary or permanent disabilities which do not allow them to commute in a different way. The best approach would be to inspire employees, by providing the direction the organisation wants them to act, in a similar way the company persuades its customers to buy the company's products and services. Giving the right examples among their peers which represent the company's values, inspiring, persuading and influencing will make them come along, but **never** by **imposing** on them.

Another way could be to start with **examples from the top management**. Usually managers inspire more credibility and are a good example to follow if they are good leaders able to persuade, motivate and inspire people. Involve managers in the carpooling system development, encourage them to participate in sharing their cars with other employees or if the distance allows, to cycle or walk to work. "We follow people in whom we believe." (Ruck 2015, 70.) Making sure the managers are adopting a more sustainable commuting solution can have a great positive impact in the travel plan implementation.

Increase the travel plan awareness among employees, but also to other stakeholders, by **branding the travel plan** in concordance with the Finnair corporate image. Create events, incentive schemes and prizes to promote the travel plan using all the marketing tools to maximize visibility. At the end of the day, this project could also create a great impact on the company's reputation, becoming a benchmark for other companies to follow.

To find the right people for the internal sustainable commuting campaign can be challenging. That is the reason why, the message sent has to be positive and inspiring for employees, especially for the ones with no constraints regarding the commuting modes. Try to involve this segment of employees as much as possible, giving them the opportunity to co-create commuting solution together. This can be done only ensuring an **effective two-way internal communication**.

Facilitate **collaborative upward problem solving**. For example, when implementing the carpool system, make sure the employees have the possibility to give feedback and solutions to continuously improve the system. This will result in a better platform for carpooling, made by employees for employees.

**Listen to employees** to find out if their understanding, ideas and opinions to related transportation modes are aligned with the company values and goals e.g. organising thematic meetings where employees can have an open direct discussion with the environmental manager. Let their voice to come through, facilitate employees to easily raise issues and more than everything, take into account their suggestions in the decisions making, to give them a sense of belonging.

To reward the employees for using the green commuting modes, an **incentive scheme** can be implemented, taking into consideration the staff suggestions presented in the survey results section of this study. The incentives should be categorised according to the sustainable transport mode chosen, e.g. for cycling all year round the employee will be provided with its own bigger locker, a sheltered and secure bike parking place, a bike repair service and 30 prepaid public transport tickets in case of emergency. The people choosing these benefits will give up their car parking rights.

Create an **online community** of people interested in carpooling on a social media platform the majority of members are using more frequently at work and in their leisure time. Keep in mind that the communication on the community page starts before working hours, when people are offering to pick someone up in the neighbourhood on his way to work and the same thing happens when they leave work.

Another approach could be to create a “**Green commuting**” community for all employees concerned in their environmental impact, as well as, in their wellbeing and health. Boost employees’ interest to join the community, by organising a **contest** in which the participants will be asked to write a story about their best commuting experience and offer them the possibility to win an electric bicycle, cycling equipment, sport passes, lunch vouchers,

or any other incentive the research respondents found as being motivating. This will facilitate an easier access to the interested audience and the starting point to find the role models among the company employees. The prizes can be personally rewarded by the Finnair CEO or Environmental Manager, which will interview the winner and the whole experience will be video recorded. To add more transparency, the winner's story and video interview will be posted on the community page.

Finnair **Intranet** could include a **feature displaying the public transport information** and schedule in real time. This will provide employees instant information of the modes of transport available nearby, reducing the search time, online on the operator website, and in the same time, raise awareness of public transport services. Additionally, at the main exit gates, live boards can display public transport real time information.

A **walking campaign** could be implemented, starting in spring when the weather is nicer and more permissive for walking enthusiasts. Employees' could track their walking distances using mobile applications (e.g. Map my walk or Walkmeter GPS) and earn points. At the end of the campaign the accounted points would be converted into money. The total amount raised by all Finnair employees will be donated for a good cause (e.g. centres for people with mobility disabilities).

The internal communication is more effective if it is done in **plain language**. An elevated language, too complicated way of expressing the message or approaching only facts and figures may say nothing to employees, creating frustration and irritation. Instead of this, the organisation can use inspiring storytelling to create a clear picture in their minds through the best examples, with which the individual can identify with. Storytelling is a powerful tool able to capture employees' attention and explore their emotions. Most of our decisions are based on emotional reaction, rather than on rational reasons. Storytelling makes us empathise with the character, take us closer to his experience, makes us less judgemental and critical, and helps us to understand and retain the message sent easier.

## Transport

The community could be used as a database to start creating a **carpool program** designed to match employees with similar commuting patterns. Make the employees' access to find journey matches, at a distance of a few clicks, cooperating with a reliable carpool database operator. Remember employees that not only their journey is shared but also the costs, and this will reduce their commuting costs significantly. According to the survey results, there are groups of people in most of the capital region areas as well as people interested in a carpool system (24%). The program could be designed to match people willing to walk or cycle with other colleagues.

**Encourage walking**, but instead of promoting it as a complete commuting alternative, it would be better to encourage employees to walk at least part of their journey to work. This will influence significantly the results, reducing the carbon emissions and will improve employees' health as well. Regular walking, about 30 minutes a day, reduce obesity and the risk of other illnesses such as heart diseases and strokes, improving individual's well-being at the same time.

Introducing a **parking monthly fee** will discourage employees to use their own cars all year round, especially if they are living at a distance lower than 10 km from their work site (about 18% of employees). The electric or hybrid car owners could be granted by the company with free parking places, to encourage the less polluting car purchases.

**Encourage ride sharing**, fostering the benefits of: developing the network inside the company, facilitating personal connection and dialogues, which can lead to the creation of new relationships based on trust, common interests and hobbies. This will result in a more informal communication, reducing the power distance between employees and even more important between employees and management.

### **7.3 Further research suggestions**

The author of the thesis recommends Finnair to set a clear objective regarding the commuting campaign, having a measurable goal to achieve in a precise period of time. At the end of the allocated period, the company should repeat the survey, measure the results obtained and compare those with the ones resulted from the present research. Based on the differences identified in the employees' commuting patterns, the company will be able to assess the success of the campaign. According to the success of travel plan implementation, the process can be repeated to improve the results if the goal has not been reached, or a new cycle can start, setting up a new challenging goal to achieve.

Furthermore, an employee satisfaction survey regarding Finnair's internal communication could be conducted, to find out more insights about employees' commitment to organisation and investigate the effectiveness of the communication channels the company uses to communicate with different categories of employees. The results can give valuable information about how the company can involve and engage more of its employees, what motivate and demotivate them at work, and which are the areas in need for improvement. The interviews included in the present research covered only office employees' responses. The results of a general survey may bring up more insights regarding communication difficulties at different organisational levels.

### **7.4 Learnings assessment**

For the author of this thesis, represented a great challenge to research a topic she was very interested in, and in which she wanted to have a deeper understanding and knowledge. The thesis topic combined organisational communications, organisational behaviour and corporate sustainability in a very appealing way, exploiting her knowledge and skills, motivating her to urge the process and see the final result. Having such a big variety of concepts, the literature reviewed provided a big picture of the organisation's internal processes and challenges.

Internal communications are a complex process, and without being part of it, it is difficult to assess it objectively. Since the internal communication research has been conducted from outside the company, the author of this study, relied completely on the sample of respondents preselected by the company representatives, to assess Finnair's communication approach and the communication channels used currently. However, analysing the



qualitative data received, she was able to draw a fair conclusion regarding Finnair's internal communication, since the responses received presented many similarities and an overall common sense.

The whole designing process of the survey required lot of effort from the author. All the time spent on the smallest details paid off, when the survey was successfully launched on Webropol according the schedule and the response rate reached the expectations. Although, she has been very precise and tested it several times, one error was left unnoticed. The survey was not tested on mobile devices and one of the questions did not allow respondents to introduce the required data. However, this inconvenience was noticed during the first hours and fixed immediately, by the researcher, to ensure a smooth process for participants using different devices.

The thesis process enabled the author to improve her logical, analytical and critical thinking skills and provided a long but interesting journey through a big pool of sources and authors. During the survey implementation, her communication and problem solving skills were utilised successfully and improved, to overcome all inconveniences. As a person with excellent time management skills, the author, learned that in a project, even being the only one in charge of it, problems may occur and time may become a real issue. Although, being under continuous time pressure, she was able to deliver the report as prior agreed with the commissioning company representatives.

Furthermore, she made a great effort, using her skills and knowledge to provide Finnair many valuable insights about its employees' travel behaviour and motivational drivers, important information when planning the implementation of a new EMS such as BREEAM. The company also received recommendations of how to use the information collected, to improve the employees travel habits through effective internal communication.

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## Appendices

### Appendix 1. Email sent to employees

*English version below*

Hei,

Osana uuteen COOL-rahtiterminaaliin liittyvää BREEAM-ympäristösertifiointihanketta kartoitamme koko Finnair-konsernin henkilöstön kodin ja työpaikan väliseen liikkumiseen liittyviä käytäntöjä ja tottumuksia. Tutkimuksen avulla pyrimme saamaan tietoa henkilöstömme nykyisistä tottumuksista ja ideoita, miten Finnair työnantajana voisi auttaa henkilöstöään liikkumaan mahdollisimman ympäristöystävällisesti.

Vastaamaan pääset alla olevasta linkistä ja kysymyksiin vastaaminen vie aikaasi noin 5 minuuttia. Vastaathan kyselyyn 26.2.2016 mennessä. Vastauksesi on meille ensiarvoisen tärkeä!

Yhteystietonsa antaneiden kesken arvomme kaksi A350-pienoismallia. Tutkimuksen tulokset ja arvonnän voittajat julkaisemme viimeistään toukokuun aikana.

Linkki kyselyyn: <https://www.webropolsurveys.com/S/4C01568853BCED1C.par>

Lisätietoja: Milla Nyholm ja Outi Merilä

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Dear all,

As a part of BREEAM certification process for Finnair's new COOL cargo terminal, we are mapping the commuting modes and habits of our entire staff. With this survey we aim to gain more comprehensive understanding of the commuting modes of our staff and how Finnair as employer could support employees to make sustainable choices between transport modes.

Completing the questionnaire takes about 5 minutes. Share your views on this important topic by completing the questionnaire by Friday, 26 FEB 2016. We look forward to receiving your feedback and ideas! Employees completing the survey can also participate in a raffle to win an A350 miniature. The two winners will be announced latest in May, when the results of this survey will be published.

Link to the questionnaire: <https://www.webropolsurveys.com/S/13782E9A2FA7ECC9.par>

Further information: Milla Nyholm and Outi Merilä

## Appendix 2. Questionnaire in English and in Finnish



### COMMUTING TO WORK QUESTIONNAIRE

Dear all,

As a part of BREEAM certification process for the Finnair Cargo COOL terminal, we are mapping the commuting modes and habits of our entire staff. With this research we aim to gain more comprehensive understanding of the commuting modes of our staff and how Finnair as an employer could support its employees to make as sustainable choices among those as possible.

Completing the questionnaire takes about 5 minutes. Please complete this questionnaire by **Friday the 26 FEB 2016**. Thank you very much for your contribution to this important issue! Please also note that all employees completing this survey have a possibility to participate a draw where we raffle two A350 miniatures. The winners will be announced latest in May, when the results of this survey will be published as well!

The survey is part of Haaga-Helia University of Applied Sciences student Adela Han's Bachelor's Thesis and is conducted in co-operation with Finnair Cargo.



#### Where do you live? \*

- ☐ Helsinki
- ☐ Vantaa
- ☐ Espoo
- ☐ Kerava
- ☐ Kirkkonummi
- ☐ Tuusula
- ☐ Järvenpää
- ☐ Sipoo
- ☐ Other, please specify

#### What is your home zip code? \*

5 characters remaining

#### Where is your work site located at? \*

- ☐ TOKE (Toimintakeskus) – Lentäjätie 1 (Crew Center)
- ☐ Helsinki Airport Terminals 1-2
- ☐ HOTT (House of Travel and Transportation) – Tietotie 9 A (Finnair HQ)
- ☐ Finnair Technical Operations (Teknikontie, in future: Turbiinitie 1)
- ☐ Cargo Terminal (Rahtitie 1, in future COOL – Turbiinitie 1)
- ☐ FFA (Finnair Flight Academy) – Pyhtäänkorventie 11-13
- ☐ Other, please specify:

**Length of your employment with Finnair? \***

- ☐ Less than 1 year
- ☐ 2 to 3 years
- ☐ 4 to 5 years
- ☐ More than 6 years

**How far do you live from your work site? \***

- ☐ Up to 2 km
- ☐ 2 to 5 km
- ☐ 6 to 10 km
- ☐ 11 to 20 km
- ☐ 21 to 30 km
- ☐ Over 30 km

**Is your work? \***

- ☐ Full time
- ☐ Part time, short time/limited working hours
- ☐ Part time, one or two days a week
- ☐ Part time, 3 or 4 days a week
- ☐ Other, please specify

**What type of working hours do you have? \***

- ☐ Office hours
- ☐ Shift work
- ☐ Flight/cabin crew
- ☐ Other, please specify

**How often do you have the possibility of working from home? \***

- ☐ Never
- ☐ Less than once a week
- ☐ One or more days a week

**How interested would you be to have the option of working from home? \***

- ☐ Very interested
- ☐ Quite interested
- ☐ Not very interested
- ☐ Not interested at all
- ☐ Not possible in mv case

**What time do you usually arrive at work? \***

You can choose several options.

- ☐ Before 4.00
- ☐ 4.00-4.59
- ☐ 5.00-5.59
- ☐ 6.00-6.59
- ☐ 7.00-7.59
- ☐ 8.00-8.59
- ☐ 9.00-9.59
- ☐ 10.00-10.59
- ☐ 11.00-11.59
- ☐ 12.00-12.59
- ☐ 13.00-13.59
- ☐ 14.00-14.59
- ☐ 15.00-15.59
- ☐ 16.00-16.59
- ☐ 17.00-17.59
- ☐ 18.00-18.59
- ☐ After 19.00
- ☐ Other, please specify



### When do you usually leave work? \*

You can choose several options.

- ☐ Before 8.00 (after the night/ very early morning shift)  
☐ 8.00-8.59  
☐ 9.00-9.59  
☐ 10.00-10.59  
☐ 11.00-11.59  
☐ 12.00-12.59  
☐ 13.00-13.59  
☐ 14.00-14.59  
☐ 15.00-15.59  
☐ 16.00-16.59  
☐ 17.00-17.59  
☐ 18.00-18.59  
☐ After 19.00  
☐ Other, please specify

### Do you have any disability that affects your work transport choice? \*

- ☐ Yes  
☐ No

### Please assess if the following transport modes would be possible in your daily commuting?

	Possible	Quite possible	Difficult	Not possible
Walk *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycle *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bus *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Train *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taxi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Airplane *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car, as driver, on your own *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car, as driver, with other(s) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car, as passenger *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motorbike *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### How frequently do you use the following means of transport when commuting during the winter time?

	3 times a week or more	Once/twice a week	Less than once a week	Not at all
Walk *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycle *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bus *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Train *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taxi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Airplane *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car, as driver, on your own *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car, as driver, with other(s) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car, as passenger *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motorbike *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**How frequently do you use the following means of transport when commuting during the summer time?**

	3 times a week or more	Once/twice a week	Less than once a week	Not at all
Walk *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycle *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bus *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Train *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taxi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Airplane *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car, as driver, on your own *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car, as driver, with other(s) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car, as passenger *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motorbike *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**How do you travel to work if your usual form of transport is not available? \***

You can choose more than one option.

- ☐ Walk
- ☐ Bicycle
- ☐ Bus
- ☐ Train
- ☐ Taxi
- ☐ Airplane
- ☐ Car, as driver, on your own
- ☐ Car, as driver, with other(s)
- ☐ Car, as passenger
- ☐ Motorbike
- ☐ Other, please specify

**How many transfers would you need to do when traveling to work by using public transport? \***

- ☐ None
- ☐ One
- ☐ Two
- ☐ Three or more
- ☐ I don't know

**Have you been involved in an accident while commuting? \***

- ☐ Yes
- ☐ No

**What kind of travel mode was in question, and how many times have you been involved in an accident?**

	Once	Twice	Three or more times
Walk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Train	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taxi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motorbike	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Do you have access to Finnair's free parking lot? \***

- ☐ Yes  
☐ No

**How interested would you be to try the following modes of transport to work?**

	Very interested	Quite interested	Not very interested	Not interested at all
Walk *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycle *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bus *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Train *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taxi arranged by the company (shift workers/flying crew, for commuting during hours off public transportation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carpool (An arrangement among Finnair employees to make the work journey in a single vehicle belonging to one of them.) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rideshare (Sharing of any private cars, vans or taxi, by employees to reduce vehicle trips.) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Car share (Type of car rental designed for people who want to rent a car for a short period of time and only pay for their usage.) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**How motivating are the following incentives to encourage you to walk (even part of the trip) or cycle when traveling to work?**

	Very motivating	Quite motivating	Not very motivating	Not at all motivating
Drying rooms and lockers at work *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure bike parking *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic bike repair *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A course to practice safe cycling *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More comprehensive cycling network *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A financial incentive, please specify * <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**How motivating are the following incentives to encourage you to use the public transport when traveling to work?**

	Very motivating	Quite motivating	Not very motivating	Not at all motivating
Improved bus waiting facilities *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Readily available up-to-date easy-to-use bus and train timetables *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced cost of public transport card *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Existing public transport services re-scheduled to better fit your work hours *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More feasible bus routings *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faster train connection to the airport *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A financial incentive, please specify * <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**How motivating are the following incentives to encourage you to use carpool (an arrangement between employees to make the work journey in a single vehicle) when traveling to work?**

	Very motivating	Quite motivating	Not very motivating	Not at all motivating
A carpool database to help you find colleagues with similar work patterns *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reserved carpool parking in a prime spot *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A financial incentive please specify *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**How often do you travel between Finnair's work premises? \***

- ☐ Never  
☐ Less than once a week  
☐ One or more days a week

**How many kilometers do you need to travel between Finnair's work premises in a normal day? \***

- ☐ 2 km or less  
☐ 3-5 km  
☐ 6-10 km  
☐ 11 km or more

**What form of transport you use to travel between Finnair's work premises? \***

You can choose more than one option.

- ☐ Walk  
☐ Bicycle  
☐ Bus  
☐ Train  
☐ Taxi  
☐ Car  
☐ Other, please specify

**Gender \***

- ☐ Male  
☐ Female

**Age \***

- ☐ Less than 20  
☐ 20 to 29  
☐ 30 to 39  
☐ 40 to 49  
☐ 50 to 59  
☐ 60 or more

**Please leave your email address here in case you would like to participate the draw.**

☐ I want to submit my answers

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## KODIN JA TYÖPAIKAN VÄLISEEN MATKUSTUKSEEN LIITTYVÄ KYSELY

Hei,

Osana COOL Cargo-terminaaliin liittyvää BREEAM sertifiointihanketta kartoitamme koko Finnair konsernin henkilöstön kodin ja työpaikan väliseen matkustukseen liittyviä käytäntöjä ja tottumuksia. Tutkimuksen avulla pyrimme saamaan lisää tietoa siitä, miten Finnair voisi työnantajana auttaa henkilöstöään valitsemaan mahdollisimman ympäristöystävällisen tavan liikkua.

Vastaamaan pääset alla olevasta linkistä ja kysymyksiin vastaaminen vie aikaasi noin 5 minuuttia.

**Vastaathan kyselyyn 26.2.2016 mennessä!** Kiitos osallistumisestasi, vastauksesi on meille ensiarvoisen tärkeä! Yhteystietojensa jättäneiden kesken arvomme kaksi A350 pienoismallia. Tutkimuksen tulokset ja arvannon voittajat tulemme julkaisemaan viimeistään toukokuun aikana.

Kysely on osa Haaga-Helia ammattikorkeakoulussa opiskevan Adela Han :in opinnäytetyötä ja tehdään yhteistyössä Finnair Cargon kanssa.



### Asuinpaikkani \*

- ☐ Helsinki
- ☐ Vantaa
- ☐ Espoo
- ☐ Kerava
- ☐ Kirkkonummi
- ☐ Tuusula
- ☐ Järvenpää
- ☐ Sipoo
- ☐ Muu, mikä?

### Postinumeroni on \*

5 merkkiä jäljellä

### Ensisijainen työpisteeni lentokenttäalueella \*

- ☐ TOKE (Toimintakeskus) – Lentäjätie 1 (Crew Center)
- ☐ Helsinki Airport Terminals 1-2
- ☐ HOTT (House of Travel and Transportation) – Tietotie 9 A (Finnair HQ)
- ☐ Finnair Technical Operations (Teknikontie, in future: Turbiinitie 1)
- ☐ Cargo Terminal (Rahtitie 1, in future COOL – Turbiinitie 1)
- ☐ FFA (Finnair Flight Academy) – Pyhtäänkorventie 11-13
- ☐ Muu, mikä?

### Työsuhteeni pituus Finnairilla \*

- ☐ Alle 1 vuotta
- ☐ 1-3 vuotta
- ☐ 4-5 vuotta
- ☐ Yli 6 vuotta

### Kodin ja työpaikan välisen matkani pituus \*

- ☐ Alle 2 km
- ☐ 2-5 km
- ☐ 6-10 km
- ☐ 11-20 km
- ☐ 21-30 km
- ☐ yli 30 km

### Työmuotoni \*

- ☐ Kokoaikainen
- ☐ Osa-aikainen, osapäivätyö
- ☐ Osa-aikainen, 1-2 työpäivää viikossa
- ☐ Osa-aikainen, 3-4 työpäivää viikossa
- ☐ Muu, mikä?

### Pääsääntöinen työaikamuotoni \*

- ☐ Toimisto aika
- ☐ Vuorotyö
- ☐ Miehistö (lentäjä/lentoemäntä/stuertti)
- ☐ Muu, mikä?

### Kuinka usein pidät etätyöpäiviä? \*

- ☐ En koskaan
- ☐ Harvemmin kuin kerran viikossa
- ☐ Kerran tai useamman kerran viikossa

### Kuinka kiinnostunut olisit tekemään etätyötä kotoa käsin? \*

- ☐ Erittäin kiinnostunut
- ☐ Melko kiinnostunut
- ☐ Melko vähän kiinnostunut
- ☐ En lainkaan kiinnostunut
- ☐ Ei mahdollista minulle

### Työvuoroni alkaa yleensä \*

Voit valita useamman vaihtoehdon valikosta.

- ☐ Ennen klo 4.00
- ☐ 4.00-4.59
- ☐ 5.00-5.59
- ☐ 6.00-6.59
- ☐ 7.00-7.59
- ☐ 8.00-8.59
- ☐ 9.00-9.59
- ☐ 10.00-10.59
- ☐ 11.00-11.59
- ☐ 12.00-12.59
- ☐ 13.00-13.59
- ☐ 14.00-14.59
- ☐ 15.00-15.59
- ☐ 16.00-16.59
- ☐ 17.00-17.59
- ☐ 18.00-18.59
- ☐ Jälkeen klo 19.00
- ☐ Muu, mikä?

### Työvuoroni päättyy yleensä \*

Voit valita useamman vaihtoehdon valikosta.

- ☐ Ennen klo 8.00
- ☐ 8.00-8.59
- ☐ 9.00-9.59
- ☐ 10.00-10.59
- ☐ 11.00-11.59
- ☐ 12.00-12.59
- ☐ 13.00-13.59
- ☐ 14.00-14.59
- ☐ 15.00-15.59
- ☐ 16.00-16.59
- ☐ 17.00-17.59
- ☐ 18.00-18.59
- ☐ Klo 19 jälkeen
- ☐ Muu, mikä?

### Onko sinulla liikuntarajoitus, joka vaikuttaa työmatkamuotosi? \*

- ☐ Kyllä
- ☐ Ei

### Arvioi seuraavien matkustusmuotojen mahdollisuutta työmatkallasi

	Mahdollinen	Mahdollinen tietyin rajoituksin	Hankala	Ei mahdollinen
Kävely *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pyöräily *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bussi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Juna *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taksi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lentokone *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto, ajan itse ja yksin *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto, ajan itse kuljettaen muita *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto, matkustajana *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moottoripyörä *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joku muu, mikä? <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Kuinka usein käytät näitä matkustusmuotoja töissä käydessäsi talvella?

	3 kertaa tai useammin/viikko	1-2 kertaa/viikko	Alle kerran viikossa	En ollenkaan
Kävely *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pyöräily *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bussi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Juna *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taksi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lentokone *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto, ajan itse ja yksin *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto, ajan itse kuljettaen muita *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto, matkustajana *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moottoripyörä *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joku muu, mikä? <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Kuinka usein käytät näitä matkustusmuotoja töissä käydessäsi kesällä?

	3 kertaa tai useammin/viikko	1-2 kertaa/viikko	Alle kerran viikossa	En ollenkaan
Kävely *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pyöräily *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bussi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Juna *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taksi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lentokone *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto, ajan itse ja yksin *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto, ajan itse kuljettaen muita *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto, matkustajana *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moottoripyörä *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joku muu, mikä? <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Millä kuljet töihin silloin kun normaalisti käyttämäsi työmatkamuoto ei ole mahdollinen? \*

Voit valita useamman vaihtoehdon.

- ☐ Kävely
- ☐ Pyöräily
- ☐ Bussi
- ☐ Juna
- ☐ Taksi
- ☐ Lentokone
- ☐ Auto, ajan itse ja yksin
- ☐ Auto, ajan itse kuljettaen muita
- ☐ Auto, matkustajana
- ☐ Moottoripyörä
- ☐ Joku muu, mikä?

### Montako vaihtoa sinun täytyy tehdä työmatkallasi käyttäessäsi julkisia liikennevälineitä? \*

- ☐ Ei yhtään
- ☐ Yksi
- ☐ Kaksi
- ☐ Kolme tai useampi
- ☐ En osaa sanoa

### Onko sinulle koskaan sattunut työmatkatapaturmaa? \*

- ☐ Kyllä
- ☐ Ei

### Mikä työmatkamuoto oli silloin kyseessä kun jouduit tapaturmaan? Montako kertaa näin on tapahtunut?

	Kerran	Kaksi kertaa	Kolme kertaa tai enemmän
Kävely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pyöräily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bussi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Juna	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taksi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auto	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moottoripyörä	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joku muu, mikä? <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



**Onko sinulla pysäköintioikeus Finnairin henkilökunnalle osoitetuille pysäköintialueille? \***

- ☐ Kyllä  
☐ Ei

**Kuinka kiinnostunut olisit kokeilemaan seuraavia työmatkamuotoja?**

	Erittäin kiinnostunut	Melko kiinnostunut	Vähän kiinnostunut	En yhtään kiinnostunut
Kävely *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pyöräily *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bussi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Juna *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yhtiön järjestämä taksi (vuorotyöläiset/lentävät, työmatkoille, jolloin julkinen liikenne ei kulje)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kimppakyyti A (Finnairin työntekijät sopivat keskenään kyydityksistä esim. somessa olevilla sivuilla) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kimppakyyti B (minkä tahansa yhteisautokyydin käyttö yleensä netin kautta löytynyt järjestely) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Auton lyhyt vuokra *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joku muu, mikä? <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Kuinka paljon seuraavat asiat kannustaisivat Sinua kävelemään (edes osan matkaa) tai pyöräilemään töihin?**

	Erittäin paljon	Melko paljon	Melko vähän	Erittäin vähän
Vaatteiden kuivausvälineet ja lokerot pukeutumistiloissa *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turvallinen pyöriensäilytyspaikka *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Polkupyöränkorjauspiste *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turvallisen pyöräilyn kurssi *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parempi pyörätieverkosto *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rahallinen kompensatio, millainen? * <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jokin muu asia, mikä? <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Kuinka paljon seuraavat asiat kannustaisivat Sinua käyttämään julkisia kulkuneuvoja työmatkamuotona?**

	Erittäin paljon	Melko paljon	Melko vähän	Erittäin vähän
Paremmat odotustilat (esim. bussipysäkeillä) *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helposti näkyvillä/saatavilla olevat liikenneaika- ja reitit junille ja busseille *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alennettu sarjalippu/kausikortti julkisiin liikennevälineisiin *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sopivimmat aikataulut työvuoroihini nähden *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bussien parempi reititys *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nopeampi junayhteys *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rahallinen kompensatio, millainen? * <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jokin muu asia, mikä? <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Kuinka paljon seuraavat asiat kannustaisivat käyttämään kimppekyytiä (Finnairin työntekijät sopivat keskenään kyydityksistä)?**

	Erittäin paljon	Melko paljon	Melko vähän	Erittäin vähän
Tätä tarkoitusta varten perustettu nettipalvelu, jossa kyydin tarjoajat ja tarvitsijat löytävät toisensa *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kimppakyydeille osoitetut parkkipaikat rakennuksien sisäänkäyntien läheisyydessä *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rahallinen kompensatio, millainen? *	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jokin muu asia, mikä?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Kuinka usein siirryt työpäivänäsi eri rakennusten välillä? \***

- ☐ En koskaan  
☐ Harvemmin kuin kerran viikossa  
☐ Kerran tai useamman kerran viikossa

**Kuinka monta kilometriä näistä matkoista kertyy päivän aikana? \***

- ☐ 2 km tai alle  
☐ 3-5 km  
☐ 6-10 km  
☐ 11 km tai yli

**Mitä matkamuotoa käytät siirtymiseen työpäivän aikana? \***

You can choose more than one option.

- ☐ Kävely  
☐ Pyöräily  
☐ Bussi  
☐ Juna  
☐ Taksi  
☐ Auto  
☐ Joku muu, mikä?

**Sukupuoli \***

- ☐ Mies  
☐ Nainen

**Ikä \***

- ☐ Alle 20 vuotta  
☐ 20 - 29  
☐ 30 - 39  
☐ 40 - 49  
☐ 50 - 59  
☐ 60 vuotta tai yli

**Kirjoitathan sähköpostiosoitteesi tähän, mikäli haluat osallistua arvontaan.**

☐ Vahvista vastausten lähetys

### **Appendix 3. Finnair's Internal Communication - Interview**

1. Can you please introduce yourself and tell me briefly about your position and experience at Finnair?
2. How would you describe the overall internal communication at Finnair?
3. How does the information usually flow insight the company from management to employees?
4. Please describe the working atmosphere at Finnair. Is it formal or informal?
5. How does the communication works between employees?
6. What do you feel about the amount of information communicated insight Finnair?
7. How would you describe the quality of information communicated insight Finnair?
8. What are the factors you consider important, to make you read an email or article on intranet? For example: rich content, visual presentation, relevant information, consistent message, time of receiving the message or clear and concise information.
9. Which are the internal communication channels used at Finnair?
10. How does Finnair make use of internal communication channels to inform its employees?
11. Which communication channels are you personally using more often to stay informed about company's strategy?
12. What communication channel would you consult first to find the new company's plans and strategy?
13. What communication channel would you consult first if you hear rumours insight the company and you want to confirm that information?
14. What systems are in place at Finnair to enable employees to give feedback and suggestions?
15. How are the employees engaged in the communication at Finnair?
16. Which communication channel you use or you would most likely use to engage and express your opinions, raise issues or give feedback?
17. How would you improve the internal communication at Finnair and why?

#### Appendix 4. Spearman's correlation coefficient by gender

##### Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Walk interest to try is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,656	Retain the null hypothesis.
2	The distribution of Bicycle interest to try is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,000	Reject the null hypothesis.
3	The distribution of Bus interest to try is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,042	Reject the null hypothesis.
4	The distribution of Train interest to try is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,340	Retain the null hypothesis.
5	The distribution of Taxi arranged by the company interest to try is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,836	Retain the null hypothesis.
6	The distribution of Carpool interest to try is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,279	Retain the null hypothesis.
7	The distribution of Rideshare interest to try is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,383	Retain the null hypothesis.
8	The distribution of Car share interest to try is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,000	Reject the null hypothesis.
9	The distribution of Other interest to try is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,815	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

## Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
10	The distribution of Drying rooms and lockers at work is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,000	Reject the null hypothesis.
11	The distribution of Secure bike parking is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,000	Reject the null hypothesis.
12	The distribution of Basic bike repair is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,000	Reject the null hypothesis.
13	The distribution of A course to practice safe cycling is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,457	Retain the null hypothesis.
14	The distribution of More comprehensive cycling network is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,000	Reject the null hypothesis.
15	The distribution of A financial incentive is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,000	Reject the null hypothesis.
16	The distribution of Other incentives is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,002	Reject the null hypothesis.
17	The distribution of Improved bus waiting facilities is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,098	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

### Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
18	The distribution of Readily available up-to-date easy-to-use bus and train timetables is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,034	Reject the null hypothesis.
19	The distribution of Reduced cost of public transport card is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,025	Reject the null hypothesis.
20	The distribution of Existing public transport services re-scheduled to better fit your work hours is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,230	Retain the null hypothesis.
21	The distribution of More feasible bus routings is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,018	Reject the null hypothesis.
22	The distribution of Faster train connection to the airport is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,381	Retain the null hypothesis.
23	The distribution of A financial incentive, please specify is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,376	Retain the null hypothesis.
24	The distribution of Other incentives is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,778	Retain the null hypothesis.
25	The distribution of A carpool database to help you find colleagues with similar work patterns is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	,849	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.