Employee Perception on Sustainability Within the Nordic Aviation Group and Xfly

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Abstract

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In this thesis, the employee view over sustainability is studied in order to find out the methods to improve sustainability within the company. The commissioner for this thesis is Xfly in the Nordic Aviation Group. The quantitative research aimed to study how the employees of the company perceive sustainability within the company, in their personal lives and what could be improved. The objectives for this thesis were to come up with indicators for environmental sustainability, as well as note the differences with the company's operative countries. The process for this thesis begun in the end of January 2022, and finished in May 2022.

Briefly, the framework for this thesis consists of theories and information on the topic, including human perception, culture, sustainability in the industry, indicator determination, as well as out of the request of the commissioner a petite competitor research over sustainability. The used the framework on creating the survey for the employees and to assist in coming up with the indicators for sustainability. The primary research was a quantitative survey sent out to all the employees of the Nordic Aviation Group. The survey included four main sections including topics over personal interest, current sustainability measures and sustainability goals to follow, as well as overall satisfaction on communication including the three dimensions of sustainability.

As a result of the research, the author created indicators for measuring sustainability and based on the analysis did a country comparison based on the results of the survey. The results contributed the commissioner's purposes on enhancing environmental sustainability within the company's daily operations.

| **Keywords** |
| Airline, aviation, capacity provider, environmental sustainability, employee engagement, employee experience, sustainability |

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1   Introduction

Aviation is a fast-growing industry. Before the COVID-19 pandemic, the industry has been on its limits with over 400 commercial flights taking off globally each hour, totally making up around 100,000 take offs a day. Although the pandemic has slowed down the industry momentarily and therefore also the amount of emissions went down, aviation is known for recovering rather quickly (ICAO, 2022).

Environmental sustainability and aviation are a pair that have received a massive number of discussions in the recent years. Especially the carbon dioxide (CO_2) emissions have been a hot topic in the discussion of global warming and climate change. A lot has been done, and the rate of CO_2 emission have been massively decreasing during the past years. (Eurocontrol, 2021.) However, the stigma of unsustainability in aviation has not lifted. This is one of the reasons why sustainability is one of the core values within many airlines. The commercial aviation sector is perceived to grow during the future years to come. In Europe alone, the number of flights is perceived to increase 1,4% per year up to 2050 (Destination 2050, 2021). Not only the pressing industry of aviation, but also the general need of sustainability around the world, several companies have recognised the growing expectations for sustainable actions. It is commonly recognized how sustainability benefits the company in many aspects and ways (Haanaes 2016.)

The thesis topic is commissioned by the company Xfly. The corporation was interested in finding out the employees' experience in a newly adapted values in sustainability, and after a few lucky turns the author was given a possibility to conduct research on the topic. However, since Xfly is a daughter company of Nordic Aviation Group (NAG), the questionnaire will be shared to all the employees of NAG; Nordica, and Xfly. The research is conducted to both mutually and viewed as a unit.

The author herself got interested in the topic after attending to a specialization in Aviation Management. The author also wishes to work in aviation in the future, so therefore a topic including both sustainability and aviation felt right.

1.1   Thesis Objectives and Research Targets

There are two main objectives for this thesis. The first one is to find out how the employees of Nordic Aviation Group (Nordica and Xfly) view sustainability in general and within the company and see if there are differences between the countries in which the company operates. The second objective is about finding key performance indicators for future improvements and mapping progress in the journey of sustainability.

The main objective about employee perception has formed the following sub-questions:

- What is the employee personal motivation towards environmental sustainability?
- How satisfied the employees are in environmental sustainability in general in Nordic Aviation Group?
- Where could the company improve to become more sustainable according to its employees?
- Are there differences between Xfly's operative countries on how employees view sustainability?

For the search of effective indicators, the following sub-questions rose:

- What are the existing measurements in sustainability within the workplace?
- Which of the sustainability measures are effective?

The main method of the research is quantitative research for the employees of NAG to find out their internal motivation to the subject. The questionnaire will be shared via company's internal routes. The author will also conduct a literature review using both online and offline sources to support the subject. Some sources include the list of competitors or other airlines' ideologies which may help the author to identify the topic of research.

1.2 NAG, Xfly and Nordica

Nordic Aviation Group AS (NAG) is a cooperation of two companies, Nordica and Xfly. Nordica is a commercial airline which is operating with scheduled flights within the Baltics and Scandinavia. The company is founded in 2015, and it has since become the biggest aviation company in the history of Estonia. (Nordica, 2022.) As this thesis is commissioned by Xfly, the author will concentrate more on that side of the liaison. Thus, the whole Nordic Aviation Group is taken as a part of the survey, as Nordica and Xfly are working together.

Xfly is an Estonian capacity provider, selling business-to-business service to other airlines. This means they offer airplanes and crew in a way that Xfly's crew wears the customer's uniforms and offer their goods, uses the fuel the customer wishes and compensates to climate as much as the customer does. Therefore, the service they provide is rather invisible for the passengers of the airline. Xfly operates in Estonia, Sweden, Denmark, Finland and Lithuania and their headquarters locate in Tallinn, Estonia. Xfly is governmentally owned, and therefore the governmental decisions and goals affect also on the operations of Xfly. (Uke 15 February 2022; Xfly, 2022.) The two organizations are joint with different concepts and sharing environmental sustainability policies is one of them.

2   Country Comparison and Employees

The employees' perception is at the centre of this research; thus, the second chapter will clarify the insights of it. NAG has operation in Estonia, Sweden, Finland, Lithuania, and Denmark. Altogether the company has over 450 international employees (Uke 15 February 2022). These countries are all located in Europe, and this chapter will open the culture and general, country-specific opinions towards sustainability.

It has been previously tested whether culture or nationality plays a bigger role in sustainability. As a result of the research, the culture has more impact on an individual's values and ethical orientations than the national background. As it is, culture can be shaped by various elements and environments, and therefore, country of living is taken as a grand part of the socio-demographics of this research. (Bonera, Corvi, Codini, & Ma 2017, 2; OECD 2021, 1.1.)

Hopkins (2009, 17) defines culture as pattern of behaviour shown by people sharing similar origin. Culture is not precise, but rather a complexity of several dimensions, such as environment, era, community, and race. Culture itself can be identified to three parts.

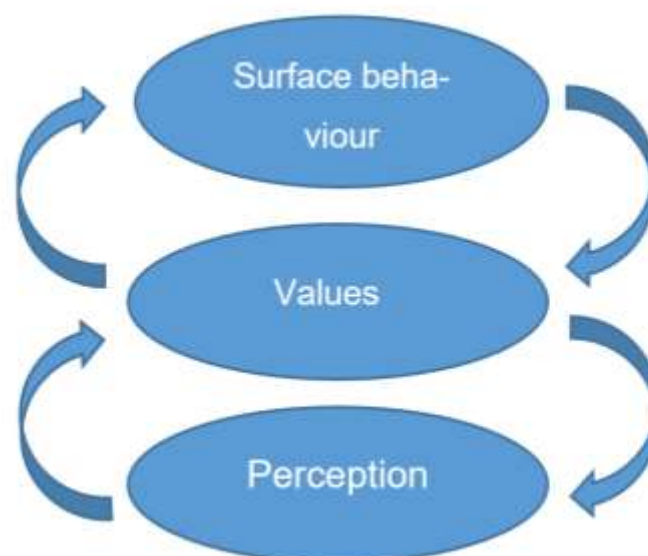Figure 1: The constituents of culture (Modified Hopkins 2009, 23)

Figure 1 above expresses the three constituents of culture. The surface behaviour means how a person expresses emotions, greets and how punctual they are, for example. Values are the principles that are held by a certain group that motivate people to act on one way or another. Briefly, perception is the mental process of individuals and groups they belong

to, see the world around them. (Hopkins 2009, 22-24.) Perception will have a deeper over-look on sub-chapter 2.6.

Hofstede's country comparison shows the differences between cultures rather clearly. The numbers in Hofstede's scales are based on the extensive cultural preferences research conducted by him and his team in 1980. (Hofstede 2022.)

As there is an international mix of cultures in Xfly, the Hofstede model is not the extremely accurate, but it gives a direction to the study hypothesis.
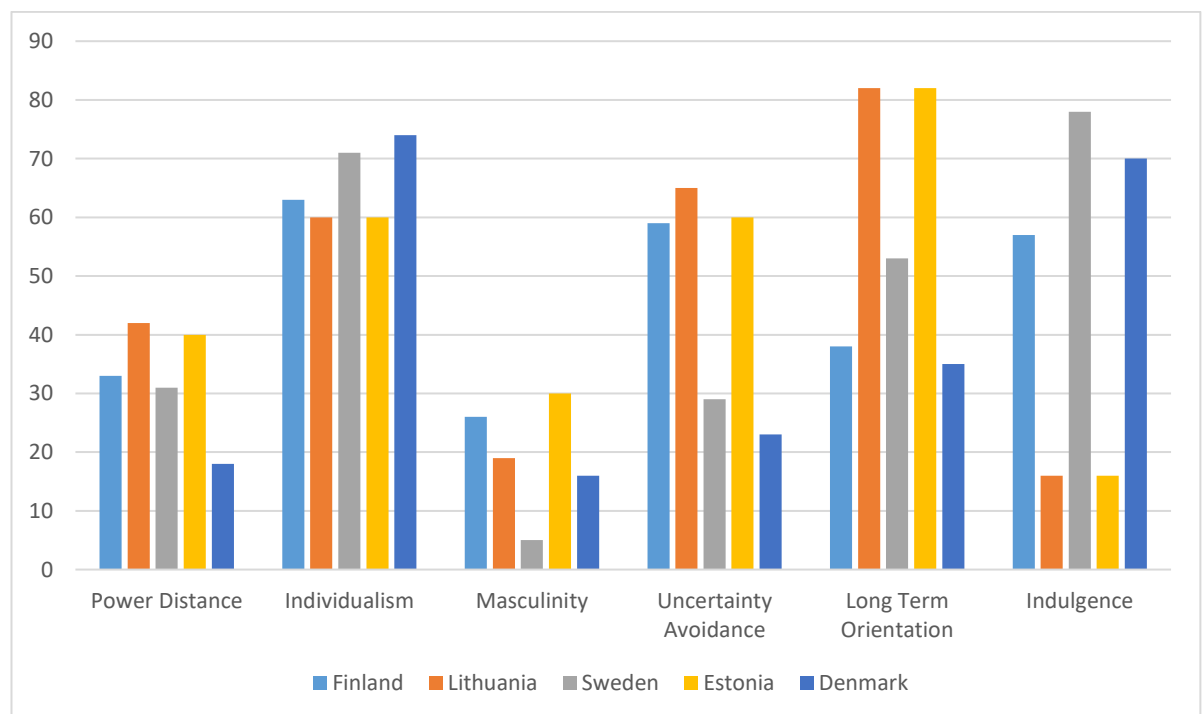
Figure 2. Country comparison Denmark, Estonia, Sweden, Finland, Lithuania (modified Hofstede 2022)

The Figure 2. above shows the characteristic differences between people in the five countries. Denmark, Finland, and Sweden, being Nordic countries, are very similar in many dimensions, and Estonia and Lithuania are similar in all the dimensions.

The main differences between the three countries are in Uncertainty Avoidance (Denmark 23, Estonia 60, Sweden 29, Finland 59, Lithuania 65), Long Term Orientation (Denmark 35, Estonia 82, Sweden 53, Finland 38, Lithuania 82) and in Indulgence (Denmark 70, Estonia 16, Sweden 78, Finland 57, Lithuania 16) (Hofstede 2022).

According to Hofstede (2022), Power Distance is defined as social hierarchy. Some cultures accept how power and authority are not divided equally. In these cultures, the ones

holding authority are expected to solve issues more than in cultures where the power distance is lower.

Individualism in cultures mean how the society tends care more of themselves and their immediate families. The opposite, collectivism in culture means there is a high "we" spirit in the society, and the people are expected to look after each other. (Hofstede 2022.)

Masculinity in cultures is a preference for achievements such as heroism, assertiveness, and material rewards for success. Masculine countries are more likely to have competitiveness among them, when femininity in countries would mean preference of values such as modesty, caring for the weak and common quality of life. These countries are more consensus oriented. (Hofstede 2022.)

Uncertainty Avoidance (UA) simply means how well culture is prepared for future. A long-Term oriented culture tends to have more regulations and rules and minimized chances for risks. Cultures scoring low on UA are more likely to take risks, which can turn out to unethical actions. (Hofstede 2022.)

Long Term Oriented countries tend to focus more on the future and are more likely to adapt to changes. On the contrary countries scoring low on this dimension respect traditions and norms and can also view changes as suspicious.

Indulgence states how easily a culture accepts the basic drives in humanity concerning enjoyment of life or having fun. Cultures scoring high in this dimension are more laid back and freer to act by their mindset. (Hofstede 2022.)

The cultural dimensions show the stereotypical mindset, which can in theory have an affect over how an individual perceives issues within their life, e.g. sustainability. In the Sustainable Development Report (2021, 10), most of the five countries are ranked at top 10 in sustainability.

2.1 Estonia

European Environment Agency states how Estonia has made great promises in their presentation about Sustainable Development Goals, SDGs in 2016 (EEA, 2020) and have had successful achievements. In 2019 Estonia was tenth in the report or Global Sustainability (Sustainable Development 2020, 2). Overall, Estonia is statistically a sustainable country, and it reflects also on the actions of the people.

As Estonia has improved their sustainability within the last 10 years, it may reflect on how the representants of the Estonian culture view sustainability. The variable here is whether the person has followed media on sustainability or not.

As it has only been a decade since Estonia began their progress in sustainability, the hypothesis is that there might be some division whether the employees relating to the Estonian culture are sustainably minded or not. Also the hypothesis is that the workplace has visible sustainability deeds for the employees.

2.2   Sweden

Sweden is one of the most sustainable countries in the world, some rankings claiming the most sustainable one in the world (Sweden 2021). Sweden has record investments in environment protection and ambitious goals in sustainability, such as net-zero investments by 2045, and aim for negative emissions. Sweden intends to have fossil free transport sector by 2030. (UNRIC 2021.)

Sweden will host the World Sustainability Day in 2022 (UNRIC 2021), therefore it can be assumed sustainability is also playing a big part in an individual's view in sustainability. Hypothesis for the employees who are working in Sweden is that sustainability is visible within the country and the workplace, and most are sustainable-minded, and actions are aligned with sustainability.

2.3   Denmark

According to Forbes (2020), Denmark is the greenest country in the world. This means that Denmark ranks highest in clean air, climate consciousness, water quality and in CO2 emissions. Denmark has a lot or gas & oil resources within the country, but only 40 % of the energy comes from non-renewable sources (OECDa 2021).

All these measurements might affect on how people living in Denmark view sustainability and how high they rank the value in their lives, which might affect on the results of the questionnaire. As sustainability is rather sustainable as a country, the hypothesis is that the employees relating to the Danish culture might be rather sustainably-minded and have an effect on the answers. It can also be assumed that sustainability shows in different forms within the country and at workplace.

2.4   Finland

In 2021 Finland was ranked as number one in sustainability in the annual Sustainability Report based on the SDGs (Sustainable Development Report 2021, 10).

Renewable energy is used for around 38 % of the sources, where non-renewable (oil & coal) takes around 33 % (OECDb 2021).

Being a country with sustainable interest, it can be assumed that employees relating to Finnish culture have interest towards the environmental issues, and environmental issues are considered within Finland's working premises.

2.5 Lithuania

Lithuania ranks 28th in the annual sustainability report based on the SDG's. Pre-Corona, Lithuania had been improving the sustainability in the country. The country focuses primarily on SDG's regarding the environmental issues of sustainability. (European Environment Agency 2020.)
Fossil fuels are largely used within the country; however, the usage of renewable energy sources has been increasing annually (OECDc 2021). According to the theory, the sustainability in Lithuania can be rather divided, and the sustainability is visible but may have some room for improvement at workplace.

2.6 Employee Engagement and Perception

Employees are a crucial part of a company's success. Especially during the past years, employee engagement has been brought to a new level in different companies due to the benefits it can bring to the organization in the long run. The term itself was first introduced by Kahn in 1990s, and it explains as the personal involvement of employees to their jobs. (Rout 2017, 145.) Based on Bridger (2014, 3), well engaged employees are something that high-performing organizations have in common. When it comes to sustainability, employee engagement is also playing a role, as sustainability is led from an individual's decisions modified by the lead and example of a company.

The employee engagement is referring to the physical, cognitive, and emotional input in the work and tasks the employees have. The employee engagement can be divided into three factors: individual factors, organizational factors, and job factors. (Sun & Bunchapattanasakda 2019, 70.) These factors describe how involved the employee is physically, the level of intensity, and the level of enthusiasm given.

Human perception is a process including how we acquire knowledge of the world. It is dependent on our personal perceptual experiences and perceptual states but also on how people commonly perceive happenings and physical objects. To understand how perception works means finding out how knowledge is acquired and if it is by having representation, sense impressions, cognitions, or ideas. (Maund 2003, chapter 1.)

Sustainability and its perception are highly dependant on the mindset, and on awareness

on the topic. Awareness is making people aware of a certain topic. Behaviour is a result of a decision-making process based on a variety on different criteria, which include e.g. knowledge, prejudice, psychological make-up and event specific conditions (weather, time, etc.). It is then a further issue to find out how to meet the awareness that is needed for a certain perception. (McIlwraith 2006, 3–5.)

Knowledge is highly connected to perception, and based on Stroessner & Sherman (2015), individual's knowledge is represented in a memory complex configurations of interrelated features. As it comes, general knowledge over the world knowledge, learning and comprehension together with experiences form mental judgements and decisions (Stroessner & Sherman 2015, 29–30).

The following socio-demographic views can influence how an individual perceives sustainability at a workplace. This part will be noted on the pre-questionnaire of the research. The theory is directional, but not absolute, as organizations and people operate on different ways and levels.

Generations

According to Forbes article (2021), Gen Z, those who are born since 1997, are more likely to make sustainable choices and purchases than the previous generations. A study conducted in Japan in 2019-2020 validated the statement. Out of a sample of 12,098 adults, those aged between 18 and 30 valued sustainable choices far more than the previous generations. (Science Daily 2021.) One reason for this might be the historic events the generations have lived through, the article states. As for example, people born during the great recession may have more will in owning materia than the younger generations.

Gender

When it comes to genders in sustainable choices, women are more likely to express "green" attitudes in their personal choices (OECD 2021). This may be explained by the different roles the genders have in society. Nousiainen (2020, 21-28) explains the roles and stereotypical thinking how it effects on the persons' action throughout the lifetime.

Nationality

As mentioned previously, nationality can affect on employee perception as well, moreover the culture of an individual. This variable can influence self-awereness, green behaviour and interest towards environmental sustainability, for example. (Bonera, Corvi, Codini & Ma 2017, 12.)

Role in the company

A manager has an influence on the management system, organization, values, and cultures within the organization. In the best-case scenario, an organization is a place where people are able and willing to put their mental capital to full use to achieve a common goal, as sustainability and greener values for example. A well-performing management have an affect on the level of sustainability perception in the organization. (Mäkipeska & Niemelä 2005, 32.) Management is also related to employee engagement.

Affect in the company

According to Dell & Crisp (1993, vii-3, 22) empowered employees have a lot of influence in the company. Empowering means to act, judge and command. An employee feeling empowered may perform tasks better and with more care and thus this might have affected towards performing sustainability within the company.

3   Sustainability and its Dimensions

This chapter will go deeper into the main topic of this research, sustainability, and clear what the term means in aviation industry and in the company itself, and what kind of international measurements have taken place in the journey of becoming a more sustainable industry. The theory of this chapter aims to give an understanding of the different depths of the topic, as environmental sustainability is a very wide concept and there are quite a few theories and practices related to the topic.

In word, sustainability means the ability to maintain and/or sustain something over time. To put it in practice, it means continuing and sustaining something for the future. Sustainability can generally be divided into environmental, social, and economic sustainability. (Beattie, A., 2021.)

The environmental side means preserving and spending as little natural resources as possible during the process of doing something. Preservation also contains protecting the environment from e.g., waste, extensive corrosion, and emissions/pollutions. (United Nations 2022.)

3.1   Environmental Sustainability and Aviation Industry

Sustainability and aviation are a very much discussed pair for over centuries. A lot has been done and a lot is being implemented in order to make the aviation industry more sustainable in the future. Yet, discussion is raised over emissions, noise, and air quality, which are continuously raising headlines, and to those the aviation industry is carefully concentrating. (EASA 2022.) Some of the greatest environmental hazards include also waste, as gigantic amounts of waste is generated during flights, on the airports and in manufacturing new aircrafts, and that can bring the biodiversity in jeopardy anywhere in the world, if the issue is not correctly handled (CAA UK 2014.)

Water is another powerful element in the hazards that come up in the aviation industry; Life beneath water and water circulation would suffer severe damages in case of a fuel breakage or even during a general de-icing process to allow aircrafts to take off during winter time. (CAA UK 2014.) Hazards are well recognised in the industry and sustainability is a core value guiding the modern airlines and aircraft manufacturers in aviation.

Although the COVID-19 slowed down the Instrument Flight Rule (IFR) flights and momentarily brought down the amount of total emissions, Eurocontrol (2021) is forecasting the amount of flights to exceed the 2019 by the year 2024. Moreover, although a lot of technological improvements, new fleet, and use of Sustainable Aviation Fuel (SAF) have been able to counterbalance the emissions, the growth in aviation is increasing the noise pollu-

tion and emissions continuously since 2014. (EASA 2022.) These are very much discussed topics issued in each European airline.

3.2 CORSIA and EU ETS

Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and EU Emissions Trading System (EU ETS) both represent the offsetting emissions, but there are some differences on how they work. They are market-based instruments addressing the climate impact of aviation industry. These measurements involve all the airlines within Europe, and therefore are a part of the sustainability plan of Estonia and NAG.

CORSIA is aiming to compensate any growth in CO2 emissions above 2019 levels (Eurocontrol 2021). The agreement is developed by the International Civil Aviation Authority (ICAO), and it was adopted in 2016, and took place from 2021 onwards.
By November 2018, 76% of the international aviation activity intend to volunteer to offset their emissions from 2021 (EASA 2022b).
ETS is the first carbon offsetting scheme launched in 2005. With the system, there was a gap for emissions to be used per a year, and the CO2 levels overing the budget must be bought or traded. The tool worked on a "cap and trade" principle and by time the total amount was decreased so that the total emissions would drop. The EU ETS covered many sectors of energy creation, and in aviation it is applied in flights departing and arriving in the European Economic Area. (European Commission 2022a.)
EASA (2022b) also states that "ETS allowances are not currently accepted under CORSIA, and international offset credits, including those deemed to be eligible under CORSIA, will not be accepted under the ETS as of 1 January 2021".

3.3 Destination 2050

The global average temperature is rising compared to the pre-industrial levels, causing harm to the planet. Therefore, the temperature rise must be limited to 1,5 ° to 2 ° Celsius in order to prevent more damage from happening. Carbon dioxide (CO2) is one of the main causes of global warming, as it creates a greenhouse effect, which prevents the heat leaving the planet. (IPICC 2018.)
Europe is aiming to be carbon-neutral by the year 2050. To achieve this, the EU leads the way by investing on several diverse solutions in technology, social aspects, as empowering citizens, and aligning actions in industrial policies, finance, and research. Each EU member state will give their national long-term strategy on how to reach this goal. (European Commission 2022b.)
Currently aviation rounds 3-4 % of CO2 emissions globally. In Europe the percentage is 4. Between the years 2009 and 2019, the fuel efficiency of aircraft operations has in average

been improving by 2 % per year, thus more action is needed to reach a goal of zero CO_2 emissions by 2050. (Destination 2050 i-7.) Altogether there are four measures in four pillars which will help to reach this goal:

1. Aircraft and engine technology, in other words replacing the current fleet with for example, more fuel-efficient and "aggressive" hybrid-electric advantages (Destination 2050 26-31).

2. Air traffic management (ATM) and aircraft operations, efficiency in Air Traffic Management must be improved by uniting the airspace over Europe. The reformation got a name SES and SESAR, Single European Sky and ATM research. (Destination 2050, 53-73.)

3. Sustainable Aviation Fuels (SAF), during the last 15 years the aviation industry has done research to decrease the amount of fossil fuels in aviation by developing alternative "drop-in" fuels to be blended with kerosine. So far, the SAF have major potential, but are also facing severe challenges, as the usage of SAF would cause deforestation, and competition with feed and water supply, for example. Moreover, use of SAF is still up to the day quite uneconomical due to the expensive production costs. (Destination 2050, 81-95.)

4. Smart economic measures, as to recently greenhouse gas emissions received a price tag, and companies were no longer able to emit emissions with zero cost. Examples of these mechanisms are the previously mentioned CORSIA and EU ETS, both to be used to put a cost to emissions, but on slightly different ways. (Destination 2050, 114-120.)

3.4   NAG and Xfly in Sustainability

Although NAG's journey in sustainability is rather new, started in the autumn 2021, the company has already done several implementations within the operations. According to Uke (17 February 2022), the company has the following measures in use:

- Established Environmental Goals and Policy
- Monthly sustainability part in Insight newsletter
- European Green Office program in the process
- Paper collection system
- Collected majority of data needed for carbon footprint mapping
- Created alternative to regular business cards
- EU ETS / CORSIA reporting
- EFB, Electronic Flight Bag. A device assisting the flight crew performing tasks with less usage of paper (NBAA 2022).
- Carbon neutral tickets while commuting with Scandinavian Airlines (SAS)
- Reusing old rags in hangar and hazardous waste sorting
- Light-Emitting Diode (LED) light bulbs in the office
- Using Ecolabel cleaning products and office paper

The company plans to begin mapping and calculating the difference they have achieved by the taken measurements in sustainability.

As Xfly is Estonian governmentally owned airline, it aims to concentrate besides its own goals, also to the goals of the European Union in which Estonia has committed to. These goals include the previously mentioned CORSIA and Destination 2050 as well as the Sustainable Development Goals (SDG). (Uke 17 February 2022.)

Xfly states in their website that sustainability is one of their core values. Therefore, also it is expected from their employees to be knowledgeable about environmental issues. Although Xfly send out monthly sustainability info with the newsletter (Xfly 2022), the survey will state in what level the knowledge, commitment and interest the employees of Xfly and NAG currently have.

3.5 Sustainable Development Goals

In 2015 United Nations set up 17 goals for sustainable development to be reached. These goals are known as SDGs as short. These goals are set up to cover all the areas of sustainable development, such as environmental protection, social inequality, improving health and education and ending poverty. (SDG 2022.) The sustainable development goals are brought up by the company to have as a part of this thesis and the research.

The author has separated the environmental SDG's out of the 17. The following goals will be used in creating the survey to find out whether the employees have an idea how to be more sustainable and to see if the company is on the right path when it comes to achieving sustainable organization in the matter on environment.

- Clean water and sanitation, SDG 6

The first goal means availability and usage of clean and safe water for all. Investing in integrated water production and innovative sewering (United Nations 2022).

- Affordable and clean energy, SDG 7

Ensuring access to affordable, reliable, sustainable and modern energy for all (United Nations 2022).

- Sustainable cities and communities, SDG 11

Assuring that excess material are properly sorted, innovative use of recycled raw-material in urban communities (United Nations Global Compact 2015, 40).

- Responsible consumption and production, SDG 12

Consuming material that are easily recyclable and making sure the production chain is not over-consuming (United Nations 2022).

- Climate action, SDG 13

Actions bases on improving climate, decreasing the amount of CO_2. The core to this is suspending the global warming, keeping it under 1,5 °C (WHO 2022).

- Life below water, SDG 14

Making sure that using resources does not danger the ecosystems under water. Sustainable use of oceans and water. Making connections between healthy ecosystems (UN Global Compact 2015, 49).

- Life on land, SDG 15

Protecting, restoring and promoting the use for terrestrial foresting (UN Global Compact 2015, 50).

3.6 Corporate Social Responsibility

Corporate Social Responsibility (CSR) is a topic discussed with the company Xfly, although it is not a part of the main research question, it has sides that may assist on improving environmental sustainability within the employees.

In the corporate world, to put sustainability in the operations, it is generally divided into three sections; social, economic, and environmental, and CSR is an interaction of these three dimensions. Social responsibility is about people and the culture of the company. The core part of social dimension is about protecting human rights in the company, but also about the company's responsibility for health & safety issues, and ethical basis of their products for the consumers. Environmental dimension of CSR means protecting biodiversity and securing natural resources for future years to come in the company's operations. Environmental promises, agreements, and deeds such as eliminating usage of non-renewable resources of minimizing carbon footprint are a grand section of environmentality within a company. Lastly, economic environment relates to the financial welfare of a company. Its dimensions include commitment in being profitable and holding a strong competition position. (Braun, 2008; Beattie, 2021.)

Including sustainability to daily business is a process which requires integrating social, environmental, ethical, and human rights to the operations, in collaborations with all the corporate's stakeholders. (Chandler & Werther 2017, 7). The term CSR means practices and

policies undertaken by the company that affect positively on the world. CSR itself is a wide concept, and it can take many forms depending on the industry. As many authors have previously also highlighted the need of CSR, the concept can be equally valuable for a company, as it is for the society. CSR activities can help forge a stronger bond between employees and corporations, boost morale, and help both employees and employers feel more connected with the world around them. (Beattie, A. 2021.)

This thesis aims to understand the perception of the employees within sustainability and based on the results, CSR will help the company to motivate the employees to perform daily tasks and follow the given guidelines from superiors of higher levels. The concept of CSR aids to share value among all the stakeholders of a company.

4   Determining Indicators

One of the objectives of this research is to determine indicators for sustainability. There would be measurements to clarify and see the change in the future terms to come. To reach this, the measures of sustainability must be found and then determine the ones that would benefit the case company the most.

4.1   Measuring Sustainability

Measuring sustainability shows commitment towards the cause. Companies tend to use different measures for managing sustainability in different levels of operation. Alan Gutterman indicates in his book (2021) how measuring sustainability is perceived as difficult, and there is no "one-size-fits-all" solution for sustainability measures (A. Gutterman, 40-42, 2021).

In the Figure 3 below, the OECD (2022) has stated 18 most familiar indicators in organizations' supply chain which influence the environmental sustainability. There are three parts, and each of them has an influence on the company's environmental image.

Figure 3. Manufacturing indicators in supply chain (modified The Organisation for Economic Co-operation and Development 2022)

Inputs (I) show possible measurements on how much non-renewable materials, restricted substances and recycled/reused content is used in the first section of the supply chain. Operations (O) focus on the intake and consumption of water, energy, greenhouse gas, the amount of renewable energy and the release amounts of residuals, air, water, and usage of natural land.

The products show the sum of each manufacturing indicator, depending on the intensity of the materials on Inputs and Operations.

The Products review different sums depending on the production process and the nature of a product. However, these indicators show quite a detailed point of view of tracking sustainability in general. (OECD 2022.)

Out of the Figure 3, Xfly has already taken measures in each section by using recycled content with their system when it comes to papers, old rags, wasting systems and eco labels (Uke, 17 February 2022). Due to the nature of business in Xfly, not all the indicators can be perfectly obtained, as many of the indicators depend on the customers' resolution.

4.2   Key Performance Questions and Key Performance Indicators

To be able to determine Key Performance Indicators (KPIs), Marr suggests in their book (2012) to use Key Performance Questions (KPQ). These questions may assist the management of a company to determine the right KPIs. Marr continues that jumping to designing indicators without first asking the right questions, which can then affect on the performance of the company.

Depending on the organization, the KPIs are individually determined and selected to support the needs for each company. Correctly used KPQs help leaders understand what kind of data and information they need, and afterwards create successful KPIs.

As for each goal there should be number of one to three KPQs designed.

In sustainability, the aim is to find the perception and interest of the employees. Therefore, KPQs for the research can be, for example, "to what extent to include the employees to sustainability", "How effective is the current sustainability strategy", "How well have we managed to inform about environmental sustainability to our employees", "which measurements of sustainability need most improvement".

These questions do not give a straight answer but can be inducted into the survey distributed to the employees, and hopefully to find some line to the possible indicators of environmental sustainability.

According to Parmenter (2015), Key Performance Indicators "are those indicators that focus on the aspects of organizational performance that are the most critical for the current and future success of the organization."

Rozner (2013, 3) defines KPIs to be measures used by an organization to define success and progress in order to meet their strategic goals.

The Key in Key Performance Indicator states the cruciality of this factor in the performance of the organization. The indicator can not be money or based on several activities, as it would turn out to measure other than performance. (Parmenter 2015, chapter I.)

Parmenter (2015, chapter I) defines that there are seven elements to a Key Performance Indicator (see Figure 4).
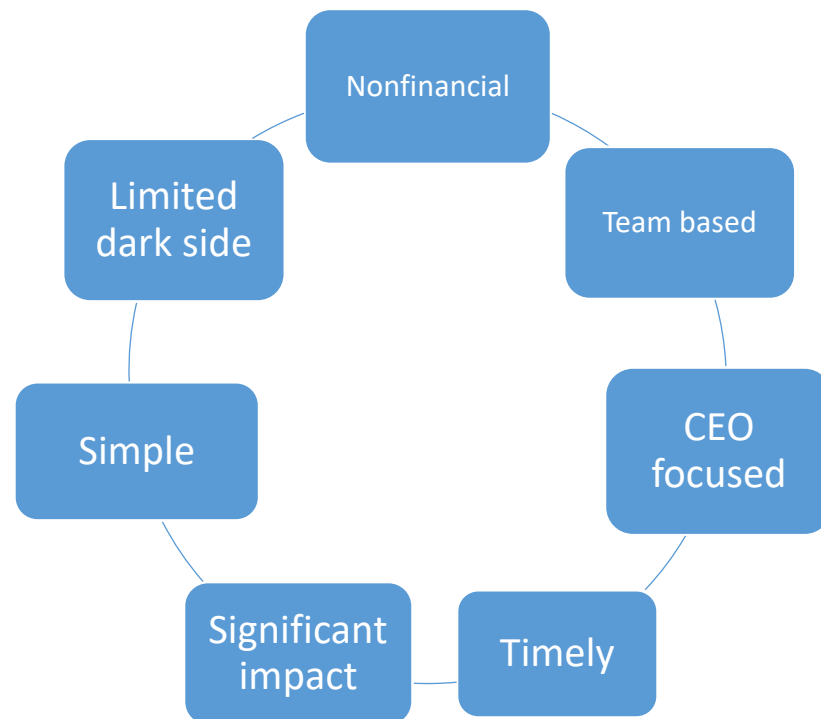

Figure 4. Elements of KPI (modified Parmenter 2015, 11)

The elements above (2015) imply the key activities to the business performance. Once coming up with sufficient KPIs that involve all the elements, the organization ought to be understood if the determined KPIs are critical factors to assist in success.

First, KPI is always CEO or management focused, meaning that the management will be able to enable the resources according to their strategy of action to improve the result of KPI's. A good KPI is frequently measured. Depending on the importance and the nature of the KPI, the time period of measuring varies, e.g. KPI can be measured 24/7, weekly, monthly or annually. The KPI development should be concentrated on the issues which matter the most in the organization, and the indicator should be aimed on the critical success factors. The indicators should be easily understood and simple. For an indicator to be effective, it should be team based as in way that the whole team can have an affect on its operability. The indicator should not involve any measures in money, and it should not have negative effects on the company. (Parmenter 2015, 11.)

The number of total KPIs can be anything between under 10 to 30. For sustainability the author believes that amount that is around 10 is reachable and therefore easy to map in the future, to assure a beneficial success in the journey for sustainability. (Parmenter 2015, 11; Twin, 2021.)

As mentioned in chapter 4.1, tracking the sustainability and the supply chain's carbon footprint, it may be tricky, however, stating the current situation and creating targets is important, as the goal in sustainability is solely to do better than before.
International Civil Aviation Organization (ICAO) states in their Air Navigation Conference report (2018, 2), that currently there are no official environmental KPIs to be implemented in the global Air Navigation Plan.

4.3   Airline study

From a request of the commissioner, as a part of the research I conducted a petite competitor study to see whether other similar type of airlines, competitors, or customers, would have efficient KPIs or environmental sustainability measures in use that could be found useful in the process. This petite study is confined to sustainability measures for an example. The results of this study will be used in finding indicators for Xfly and to seek for good practices which to include in sustainability.

SAS, Scandinavian Airlines is a customer of Xfly. The two companies have joined some environmental practices in their cooperation, such as previously mentioned carbon neutral tickets. According to SAS' website, they are taking measurements in several projects with the goals aligned with Eurocontrol; Noise reduction by 50 %, reducing CO_2 emissions by 50 % by 2050, decrease weight on flights and dry cleaning the aircraft. (SAS, 2022; Eurocontrol, 2021.)

Finnair is a competitor in some of the same routes as Xfly's customers and a part of Nordic airlines and therefore sharing ideologies on sustainability. Finnair has an updated website with measurements and information over actions they have taken towards environmental sustainability. The sustainability objectives on the website contain for example the usage of fuel, decreasing weight, recycling, and minimizing waste and recovering the old fleet. (Finnair 2021.)

TUIfly is a charter airline, and a customer for Xfly. TUIfly operates in several European countries and sustainability intakes can be found on different country specific websites of TUIfly. In general, TUIfly has taken grand steps on becoming more sustainable in CO_2 reductions and improving the fleet efficiency by purchasing new aircraft. TUIfly also gives a

possibility for its customers to buy a share of SAF to be used on their flight. (TUIfly NL 2022; TUI Group UK 2022.)

Although the analysis gave some measurements to look after, it is to be noted that Xfly is a capacity provider and therefore the company itself cannot decide on all the measures its customers use when it comes to environmental sustainability on flights. This may mean aviation fuel, cleaning or the food served on flights, but good practices can be offered to a customer. Employees of Xfly are trusted to be familiar with the concept of Xfly and therefore the indicators of this airline shall be more organizational than within the product. Xfly however has effect on fleet and services that are to be offered to the customers, which shall be taken as a part of the survey.

5   Data Collection Process and Analysis

This is the empirical part of the thesis. Methodology, data collection and the creation of the survey questions will be presented. The basic layout of the survey is given in the end of this chapter.

5.1   Research Methodology and Data Analysis

The data collection will happen through a quantitative questionnaire sent out to all the employees of Xfly and the Nordic Aviation Group in Estonia, Sweden, Finland, Lithuania, and Denmark. Altogether there are around 450 employees. (Uke, 15 February 2022.)

Quantitative method was chosen, because the sample group is large, and the results needed to analyse the perception are needed in numbers, where qualitative would not cover all the aspects of the research questions. Qualitative research would focus more on obtaining data through open-ended and conversational communication. Out of request of Xfly, most of the questions in the questionnaire will be with ticking boxes, but a few open questions are left in the end of the study for obtaining possible free word opinions on the topic.

The proposed indicators for the company will be modified from external sources of the presented literature, general standards, best practices derived from case companies and of the inputs on this internal research for the company.
The different sources are presented in the Figure 5.

External inputs	Internal inputs	
- Previous research - Literature sources - Best practise examples	- Survey for employees - Which methods are working -KPQ's	Proposed Key Performance Indicators
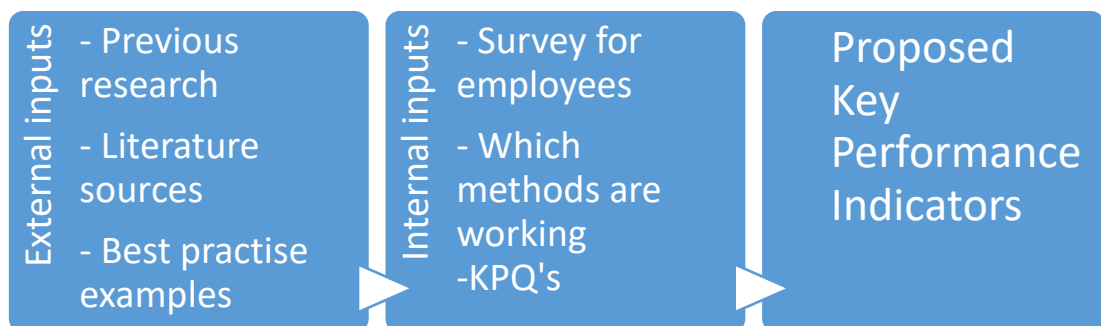
Figure 5. Sources of Determining Key Performance Indicators

Quantitative research method is generally used to measure and clarify the researched phenomenon. The raw data, as votes or numbers, can be analysed by tools, but the correlations between numbers must be understood first. (Walliman 2011, 113.) Generally, the questions in surveys are presented verbally, but the results of the answer analyses are presented numerically (Vehkalahti 2008, 13). This means that the variables need to be

sorted before the data can be run through a spreadsheet program to get them processed correctly. The quantitative research method is beneficial when the aim is to study how and to what extent something has changed. The goal of a quantitative method is to explain human behaviour on a numerical, technical, or causal level. (Vilkka 2015, 66.)

Quantitative research can be primary or secondary research. The primary research means that the researcher collects data first-hand rather than trusting the existing data. The aim is usually to gain answers to questions that have not been answered before. (Research 2021.) Because there is information found on sustainability, but the aim is to find the perception of the target group, this research will be implemented as primary research in the form of a survey. There are different forms of primary data collection, survey, causal, correlational, and experimental research. Survey can be used with a specific target group. (Questionpro, 2022a.) The secondary research can be used for validating the data collected from the primary research. It can also conclude pre-existing information from literature and data that has been published and analysed by others. In secondary research, the sources should always be selected very carefully, as biased information may affect on the reliability of the research. (Research, 2021.) Although in this research the survey is conducted as primary research, thus the sourcing is mainly from secondary research.

The data for quantitative research can be collected through mail or through an online survey (Hirsjärvi, Remes, Sajavaara 2009, 193-195). As the questionnaire is about environmental sustainability, and as it is for conveniency, the survey will be shared online via Xfly's internal link as they have used previously in the company.

Likert's scale will be implemented in the study due to its clarity in pointing out opinions. In Likert's scale there are options from 1 to 5. As for example, (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree (Britannica, 2017). The Likert scale was created back in 1932, and it allows the survey creator to investigate beliefs or opinions on chosen topics. Likerts original scale has only five points to choose from, but Allen & Seaman (2007) state how it is adviced to add number by the points of two to increase the reliability of the survey (Allen & Seaman, 2007). It is also possible to adjust the scale to have an even number, so that the respondent does not have the option to choose neutrality in the middle, but rather pick a side (Clasen & Dormody 1994, 35).

As the sample group is also asked about their perception, a semantic scale is used as a part of the research. A semantic scale asks for ranting of product, brand, or an act with a multi-point rating option. The options for answers are on opposite adjectives on the ends, as an example love-hate or very good-very bad. The semantic scales on surveys are most

reliable way to get information on people's emotional attitude towards the researched topic. The scale was created by Charles Egerton Osgood during the mid-20th century, and nowadays the databases are widely used around the world. (QuestionPro 2022b.)

5.2 Research Questions

The main research question, finding the employees general perception towards sustainability, has the following sub-objectives for the survey: the employee personal motivation towards environmental sustainability, how interested the employees are in environmental sustainability in general, where could the company improve to become more sustainable according to its employees and which of the sustainability measures are effective.

Parse is important in creating questions. Each word can make a difference when it comes to understanding the question, and therefore the creator of the questionnaire should be very careful in the planning stage. (Saris & Gallhofer 2014, I.1.4.)
Variables can affect on the answers of the respondents, and these should be taken into consideration as preliminary descriptive issues. Variables are things that should be known about the sample population to understand better the results. (Sapsford 2007, 263.)
Based on the researched theory above in chapter 2, there are some socio-demographic qualities, which might affect on the outcome. The socio-demographics are not absolute, and the individual experiences vary and affect on a personal perception. The survey must take less than five minutes to answer to assure the maximum answering percentage, and therefore only the following preliminary issues are noted:

- Culture, there are approximately 33 different nationalities and five countries represented in the company, which might affect on the result on their knowledge or how they anticipate sustainability (Bonera, Corvi & Godini 2017, 2).

- Age, as based on meta-research (Wielrnik, Ones & Dilchert, 2013) age also shows some impact on how generations perceive sustainability, based on their education and decade they lived through.

- Gender plays a role as due to research on the matter, according to OECD (2022) women are much more likely to show green values in life than males. This can be explained by behavioural and personality differences, according to a study conducted in Wellingon university 2019 (WGTN 2019). Therefore, there is a possibility the answers on the survey can be biased based on the division of genders.

- Specialist vs. Management is asked, as a manager has an influence on the management system and can be expected to be more aware of the sustainability within the company (Mäkipeska & Niemelä 2005, 32).

The socio-demographic questions in the first part will be as multiple-choice questions by ticking boxes or choosing from the list, to assure the information would be as easy to understand and answer as possible. All the questions including personal questions have a choice "Prefer not to say" to assure the person has a chance for complete anonymity during the questionnaire.

The scales for age are based on generation division, Boomers, Gen X, Millennials, Gen Z. However, for clarity it was decided together with the company to round the numbers.

The first part of the survey indicates the employees' personal perception towards sustainability. This part will be placed on Likert's scale with five different options: Strongly disagree – disagree – neutral - agree – strongly agree. All the statements will be written as positive statements on the form of first person to make them as simple and clear to understand as possible. The statements include the level of importance, interest, activity, how much they have noticed sustainability at workplace and commitment level of company in environmental sustainability, and a question if the environmental newsletter is read monthly.

The second part will be about current sustainable measurements in the company. The question is formed in a semantic scale table with each question having six possible choices for answer; Very ineffective – ineffective – neutral – effective – very effective and out of request of Xfly, "I have never heard". The meaning of this question will be to find out indicators, what is working and where to concentrate in sustainability. In this question the employee is asked to tick whether the measurement is important to the company or not. The importance is connected to the activity of being a key position to the company, and therefore this question of perception will help the author on developing KPIs later.

The last two questions are to find out the satisfaction and free word improvements of environmental sustainability in Xfly. These are important for the study as they implement if Xfly is on a right track and the employees have a possibility to point out what is to be improved. On this part there will be several options of which to choose seven goals which the employee finds the most important to follow. The options are created together with Xfly and are mostly based on the theory above with some modifications made by Xfly.

The quality of the questionnaire needs to be surveyed by a few measures before sending it out to the respondents. First, the validity needs to be checked and confirmed by the

composer of the questionnaire and by a test group, someone from outside. In the research, this is done by the management and HR of the company Xfly.

The layout of the survey should be decided and designed to make it appealing and clear to understand. After covering the final steps successfully, the questionnaire is ready to be forwarded to the respondents. (Saris & Gallhofer 2014, I.1.4.)

Being online, the routing of the questionnaire needs to be tested. As the routing goes through Xfly's internal systems, the author will be given a link to test the survey before it gets sent out to the employees, assuring the questionnaire will work as expected.

5.3   Execution of Survey

The survey is created and shared via the Nordic Aviation Group's internal routings to make it accessible for all the employees of the company and prevent unofficial answers from outside. The company has created surveys before, thus the decision to create the current questionnaire the same way, and not via Webropol, for example.

Because there are several nationalities working for Xfly in five different countries, the survey is to be conducted in English. The answering time is 10 days, from Monday to Wednesday in the following week. The original plan was to have it open for a week, but as it turns out to be collided with Easter, it was more convenient to have it open for a longer time. Reminder emails were sent out on the following week on Monday and on Wednesday morning.

6   Results

On this chapter the results of the conducted survey will be demonstrated. The first chapter will look on the socio-demographics, and the second chapter will go through the answers on other parts of the survey. After the general overview of the sustainability within the company, the author will briefly conclude the country specific opinions in one chapter. Finally, there will be an overview of the general opinions on the open answers the employees had towards sustainability. Chapter 7 will go deeper to the analysis of the results and conclude the outcomes of this survey.

6.1   Background Information of Respondents

Altogether there were N=96 (20 %) employees to answer the survey. Based on the socio-demographic backgrounds of the respondents the age gap was as following:

Table 1. Age division of the employees

Age group	Number of answers	Percentage of answer
18-25	N=6	6 %
26-40	N=49	51 %
41-55	N=27	28 %
56 and above	N=12	13 %
Prefer not to say	N=2	2 %
Total	**N=96**	**100%**

The majority (51 %) of the respondents are representing the millennials 26-40. The next biggest group of answerers were of Gen X, 41-55 (28 %). 56 and above, Boomers, (13 %), as well as gen Z, 18-25 (6 %) had the least of answers. Two (2) respondents chose not to state their age.

Table 2. Gender division of the employees

Gender	Number of answers	Percentage of answers
Male	N=58	60 %
Female	N=37	39 %
Non-binary	N=0	0
Prefer not to say	N=1	1 %
Total	**N=96**	**100%**

The gender division of the survey had 60 % male and 39 % female answerers. 1 % preferred not to answer to this question.
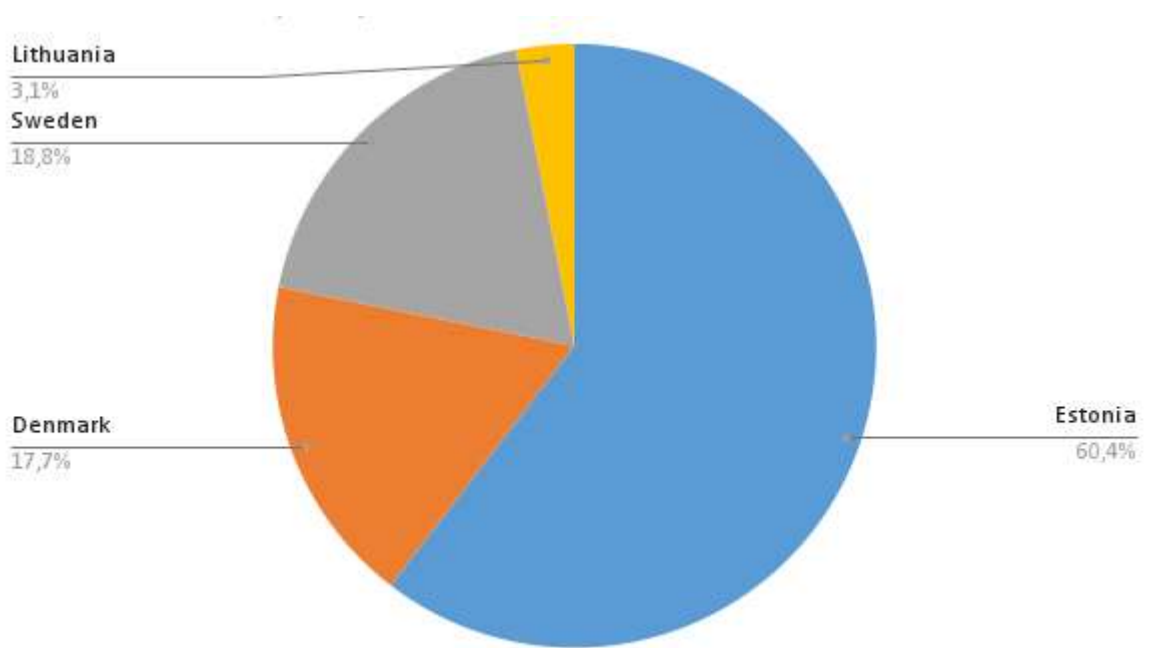
Figure 6. Country comparison (N=96)

The number of answerers is counted together in the Figure 6, as some employees are working between two countries and thus were able to pick multiple answers. Most of the answers (N=43) came from the country of origin for the commissioner, Estonia. Denmark (N=23) and Sweden (N=25) were the next biggest answering groups, and Lithuania (N=3) and Finland (N=1) in the end of the chart, as expected.
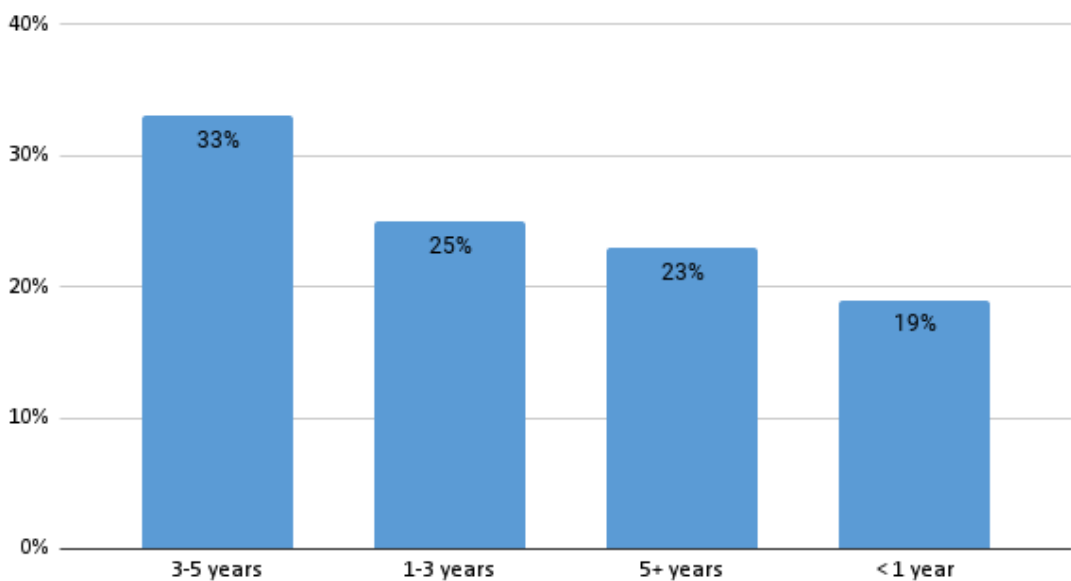
Figure 7. Period of work in the company (N=96)

Noted, that in the chart there is accidentally set overlapping with 1-3 years and 3-5 years, when it should have been 4-5 years.

In Figure 7, the majority, 33 % of the employees, has been working in the company for 3-5 years, 24 % 1-3 years, 25 % +5 years and 19 % for less than a year.

Figure 8. Division of work areas (N=96)

The figure 8 states the division of workstations within the company. Most of the answerers were working for flights (Flight Crew 27 %, Cabin Crew 27 %) and 31 % were working in the office. The employees in P-145, maintenance, covered for 12 % of the answerers.

Figure 9. Role in the company (N=96)

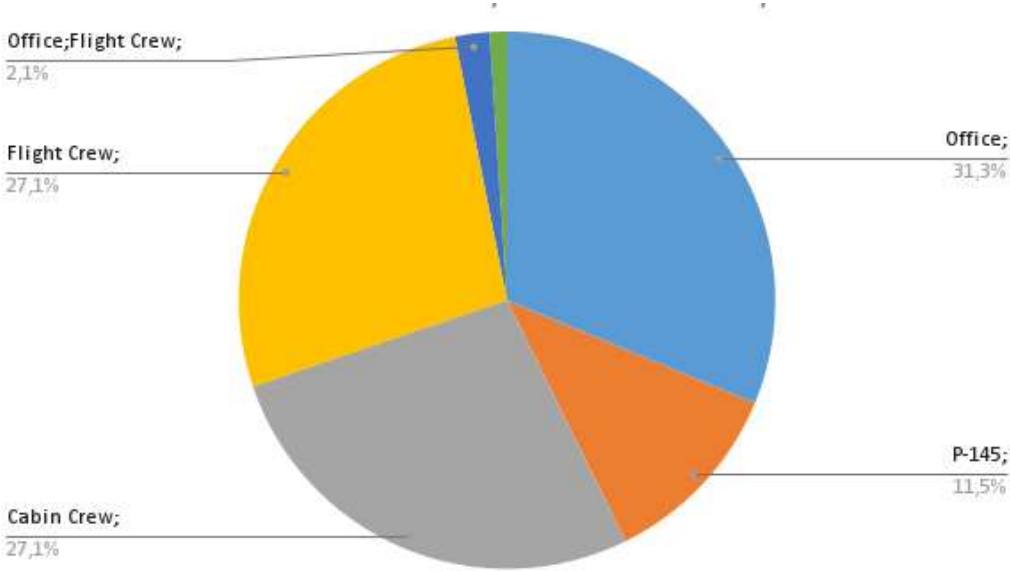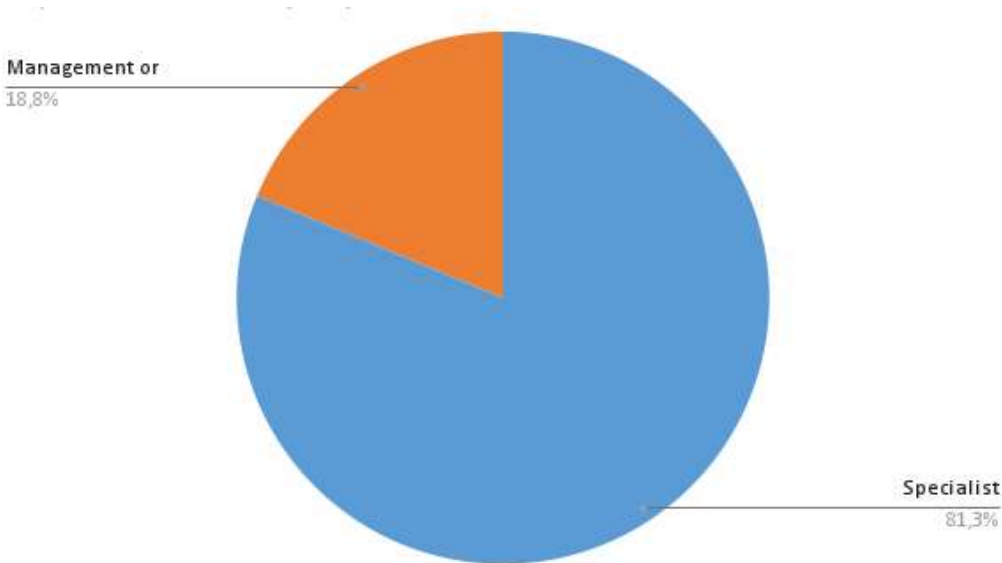N=17 of the respondents were working in the management or as a manager, and N=78 are working as a specialist. The percentages for these numbers can be seen above.

6.2   Importance of Sustainability

Section 1 asked the employees the general overview for interest towards sustainability within their personal lives and within workplace. This answers to the sub-questions over personal motivation and satisfaction over sustainability at workplace, stated on the chapter 1
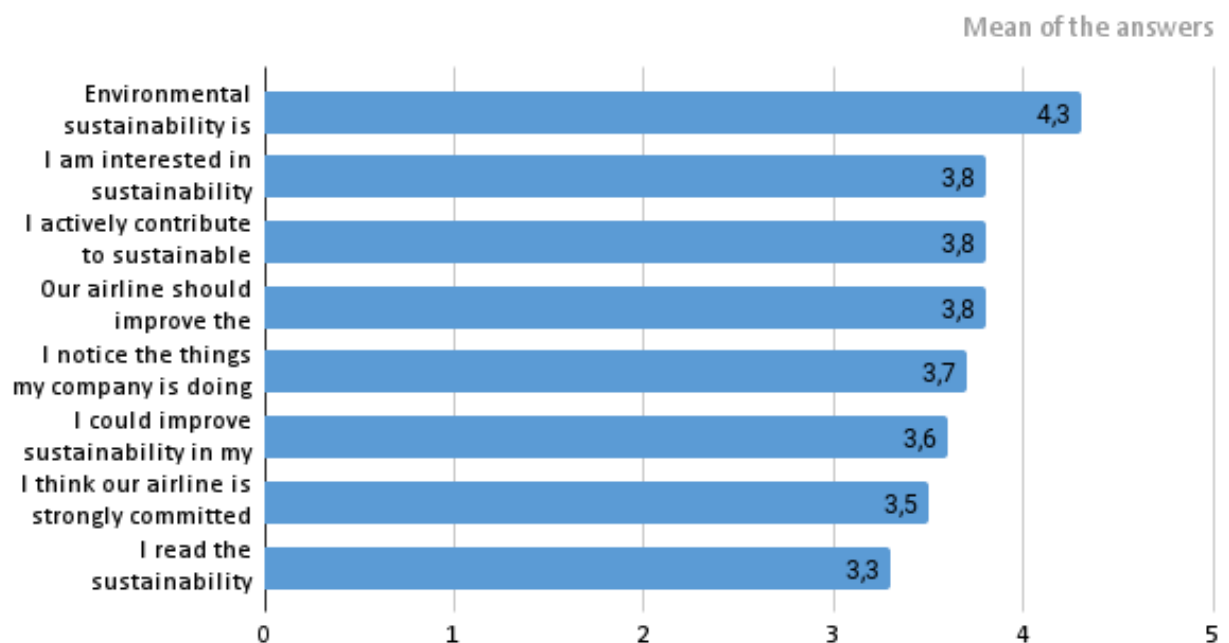
Figure 10. The means of the results on sustainability statements (Section 1)

All the answerers (N=96) answered on each statement, Figure 10 presents the mean of the given answers. Based on the figure above, most of the employees agreed on how environmental sustainability is important with an average of 4,3. Sustainability section reading rate was not as covered as the other parts, although 3,3 is over the medium. Altogether the mean of personal interest towards sustainability within the whole company is 3,7, including both personal and work-related perception of sustainability. The standard deviation rates for the statements were as following:

Table 3. Standard deviation rates on each sustainability statement (N=96)

Statement	Standard deviation rate
Environmental sustainability is important	0,86
I am interested in sustainability topics	0,88
I actively contribute to sustainability practices	0.86
I notice the things my company is doing to improve sustainability	0.94
I think our airline is strongly committed to sustainability	0.96
I read the sustainability section in the monthly newsletter	1.16
Our airline should improve the environmental sustainability in general	0.87
I could improve sustainability in my workstation: (e.g., sort waste, use less paper and plastic, etc.)	0.98
The mean of standard deviation rate	**0,94**

The deviation rate was rather similar in all the answers, the sustainability section on the monthly newsletter had the most deviation, as the employees either read it or not, and that is voluntary. The mean between the ratios is 0,94, which is rather good as most of the answerers were on the same opinion.

6.2.1 Effectiveness of Current Measures

Section 2 of the questionnaire asked the employees their opinion on the effectiveness of the current measures. This question answered to the sub-questions 4 and 5 stated in chapter 1. This question was also obligatory, so all the respondents (N=96) answered on each question.
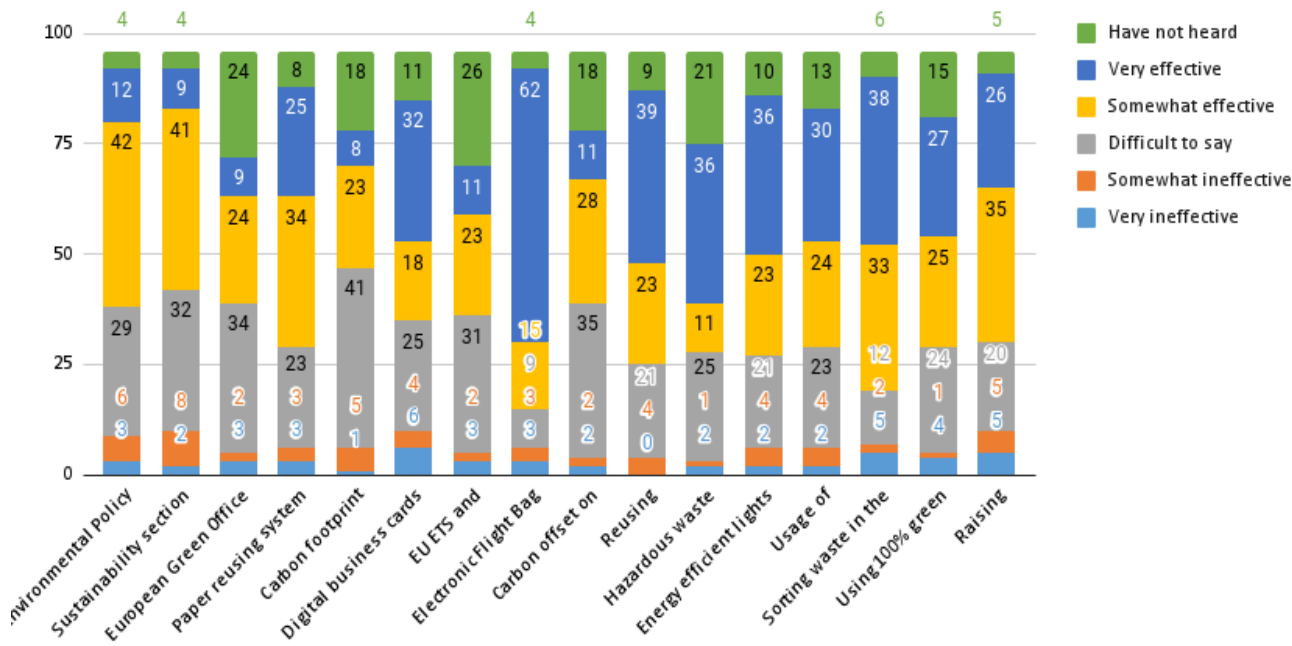
Figure 11. Effectiveness of environmental measures (Section 2)

According to Figure 12, the effectiveness of the measures within the company were emphasized in the usage of provisions on-flights, as usage of Electronic Flight Bags, Hazardous waste sorting and Reusing material/items/tools wherever possible.

Based on the results, the employees found the effectiveness of Carbon Footprint mapping to be the hardest to answer. The respondents also stated that the European Green Office and EU ETS were the least familiar and the effectiveness of these two measures were the most challenging for the employees to analyse.

None of the measures was notably ineffective.

6.2.2 Which Goals to Follow

In the third section the employee was asked to tick seven goals to which the company should concentrate on. This question is answering the sub-question three, and for the goal of this thesis; to find key indicators for sustainability.
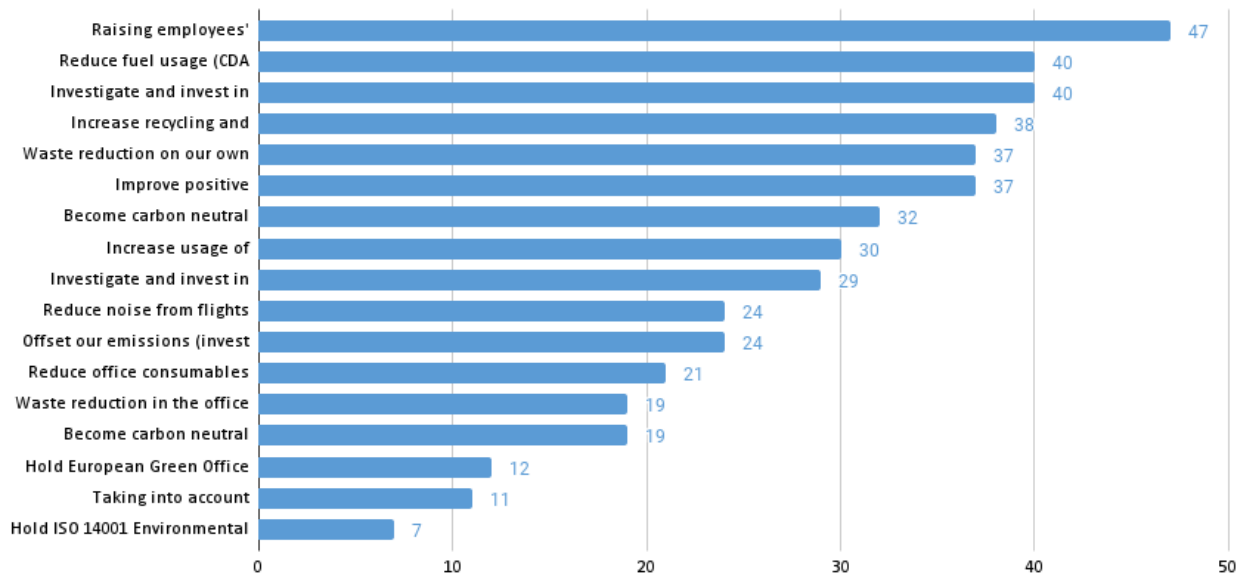
Figure 12. Importance of sustainability goals by number of votes (N=96) (Section 3)

Out of the 17 given measures, the most votes were given to "Raising employees' environmental awareness" with N=47 votes. The second most votes (N=40) were given to "Reducing fuel usage" and "Investigating and investing on long term solutions, as hydrogen". Third most votes (N=37-38) were given to "Increasing recycling and upcycling practices"," waste reduction on our own commercial flights" and "Improve positive environmental view among the employees."

"ISO 14001 Environmental Management System certificate" (N=7) and "Taking into account procurement process" (N=11) got the least votes out of the 17.

6.2.3 Overall Satisfaction & Open Answers

The last section of the survey concluded the open answers and overall satisfaction of communication in all three aspects of sustainability. This section was more for Xfly's internal purposes, but also answered to the sub-question number 2.
Overall communication on environmental topics within the company got a mean of 3,57.
The communication on social sustainability got a mean of 3,5, and the communication of

financial communication got a mean of 3,22. In the scale of 1-5, this is in the medium to good.

Out of the request of Xfly, the open answers are not quoted to keep the answers anonymous as the thesis results are being shared to the employees as well. However, the following table shows the amount of feedback based on the topics mentioned separately in writing, and afterwards the general analysis on it.

Table 4: Open-answer feedback divided by topic

Environmental sustainability improvement suggestions	N=13
Operations improvement suggestions	N=7
Social sustainability improvement suggestions	N=2
Employee awareness & Training	N=4
Total	**N=26**

The topics which came out in the section for open answers were able to be categorized into four parts. In the environmental sustainability improvements, the employees gave a great deal of ideas to improve the daily environmental sustainability, many of which included for example the use of paper cups and/or sorting waste both on board and in office.

In the operation the usage of fuel and improving the fleet, co-operation with the aviation academy and the innovation of hydrogen aircraft were the pressing matters.

Social sustainability was brought up in the means of the political situation and employee benefits, which could be improved. As for example the usage of bicycles vs cars or supporting organizations.

Many also stated the need of team meetings and training concerning only the improvement of sustainability within the company.

6.3   Country Specifics

As mentioned previously, the general answering percentage was around 20 %. In all the countries the results are only directional and describe only the opinions of the research sample. The commissioner requested that the exact numbers of people working in each country would not be distributed (Uke 20 May 2022), but the country specific response rate is included in the analysis.

ESTONIA

Out of the answerers, N=46 is working in Estonia. The response rate for Estonia was 27 %. The overall satisfaction with the sustainability is relatively good. Most of the answerers (N=30) were working at least part-time in the office environment, and the specialist vs. management ratio is 80:20 among the answerers.

Most of the answerers are interested in sustainability and believe it is important, as much as 70 % (N=32) of the answerers. The number of neutral answers rose when it came to contributing sustainability within the workplace, whether the employees have noticed things the company has done for sustainability, and when it comes to reading the monthly newsletter, where there was more differentiation. This may be affected by how new the concept of sustainability is within Xfly. Based on the results, the employees may not find as much motivation towards sustainability at workplace than in their personal lives.

The most effective measures for Estonia were the Electronic Flight Bag and Sorting waste in the office. The most ineffective measures for Estonia included European Green Office program, and EU ETS/CORSIA schemes. According to the employees in Estonia, the most important goals to follow are Raising employees' environmental awareness (N=28), Reducing fuel usage (CDA landings, fuel management, etc.) (N=27) and Investigating and investing in more efficient aircraft (N=26).

The communication of environmental sustainability got the highest average points of 3,5. Communication over social sustainability received 3,3 and the economic sustainability communication 2,9.

SWEDEN

In Sweden N=25 employees working either part-time or full-time answered to the survey. The response rate was 36 %. Out of the respondents, 76 % (N=19) work on board as Flight Crew or Cabin Crew, and the rest work in the maintenance (P-145). The management-Specialist division is 1:4.

Questions regarding interest towards sustainability within their personal lives got high points, on a scale either 4 or 5 (N=24 & N=22). Most of the employees also contributed rather well to the sustainability in the workplace. However, the number of neutral or disagree-answers grew when it came to questioning the sustainability level of the company. Overall rate on sustainability within the company was neutral.

Employees located in Sweden gave the most votes for Electronic Flight Bag, Energy efficient lights in the office and raising environmental awareness among the employees for being the most effective measures of sustainability. EU ETS and CORSIA as well as Carbon footprint mapping received the most neutral and/or ineffective and most unfamiliar votes. The most important goals to follow for Sweden-bound employees are Raising employees' environmental awareness (N=14), Increase recycling and upcycling practices

(N=13) and Improving positive environmental view among employees/Reduce fuel usage (CDA landings, fuel management, etc.) (N=11).

The communication over sustainability topics received a number of 3,7, social sustainability got 3,4 and economic sustainability 3,4.

DENMARK

N=21 respondents work part-time or full-time in Denmark. The response rate was a little lower than in the few previous countries, as 22 % of the employees in Denmark answered the survey. Out of the answerers, 81 % (N=18) work in a flight environment, the rest in the maintenance (P-145) or in the office.

Most were partly or very interested in sustainability in general in their personal life, and believe it is important. Employees working in Denmark found sustainability section in the monthly newsletter, Electronic Flight Bag, Energy efficient lights and Raising environmental awareness among the employees to be the most effective forms of environmental sustainability.

Carbon footprint mapping and Digital business cards received the most neutral and/or ineffective votes. For Denmark, the most important goals to follow are Raising employees' environmental awareness (N=11), Reduce fuel usage (CDA landings, fuel management, etc.) (N=9) and Investigate and invest in more efficient aircraft (N=9).

The communication on environmental sustainability received a mean of 3,7, social sustainability 3,7 and the economic sustainability 3,5.

FINLAND & LITHUANIA

Both Finland (N=1) and Lithuania (N=2) received very few answers that cannot be eligible for analysis. The response rates in both countries was 10 %. This may be affected by how few employees work within these countries and how well the employees care for these matters. Most of the employees who answered Finland and Lithuania are also working in other countries, and the perception of sustainability therefore also aligns with other operative countries.

7 Discussion

This chapter discusses of the key findings of the conducted research. First the key findings are presented and based on the results the indicators for sustainability suggestions are determined. The research process is analysed, and based on the analysis, there are some given suggestions for possible future research.
After going through the research, the author gives out her own comments on the learning process during this thesis process.

7.1 Key Findings

A quantitative survey was used to gather information of employee perception over the topic. The questionnaire questions were based on the research and on the measures in utilization in the company. The response rate was around 20 % in the whole organization (NAG), as the questionnaire was sent out to over 450 employees and 96 answered, which tells that there is still some room for improvement in getting sustainability seen more important within the company. The answering rate is admissible in general, but the results are only directional. There is room for improving the general interest towards sustainability within all the countries. As the questionnaire was answered anonymously, there is also a chance of fallacy.

Nationalities were not asked in this research, and the scope of answerers was too minimal to reliably analyse the effect of a country to the results, however the differences are stated on a sub-chapter 6.3. Unlikely the author had expected the age group of 56 and above were the most interested in sustainability with the answer rate of 91 % (N=11) on "agree" or "strongly agree" whether they are interested in sustainability in general.
The gender division was also very similar in opinions for sustainability, as 76 % of women and 75 % of men were either interested of very interested in sustainability in general. To look it backwards, 3 % (N=1) in women was not interested in sustainability and 9 % men was either slightly or not at all interested in sustainability. Based on the results, the gender did not play much of a part in personal sustainability views, as the mediums showed rather similar rates in personal interests when dividing them by gender.
In general, for all the employees, although it was not directly asked but it was brought up in the open answers, global situation and trends were brought up, and they had an affect on how the employees currently viewed the environmental sustainability, e.g. greenwashing, the war in Ukraine and political situations were concerning some in the answers.

When it comes to the sub-questions of this research, the results of this questionnaire suggest that the employees find environmental sustainability somewhat important, yet there is

some division on the general interest in personal lives and in the workplace. In general, and all operative countries included the interest towards sustainability is higher in personal life than at the workplace.

The study also shows that there are some divisions between the countries. Estonia was highlighted in the statistics and results can be viewed as most accurate of the five, as expected with Xfly and Nordica being Estonian airlines. To get a more reliable sample whether the employees view sustainability differently within the countries, the samples ought to be similar sized, and bigger in all the countries of study.

Overall, the perception of sustainability within the workplace is on the positive aspect (mean +3), thus there was some division. There are no previous studies conducted on the topic within the company, and therefore the mean of interest towards environmental sustainability was the 3,7, as the author expected. The data showed employees being slightly more interested in sustainability within their personal lives (Section 1, Environmental Habits & Values).

The employees had diverse thoughts over how sustainability is going within the company, however, the need of communication, training, and group meetings with the focus on environmental sustainability was brought up on several feedback. Improving was also needed in operational causes, as introducing new fleet, and finding new solutions, as hydrogen, on becoming a greener airline. Minor and straight suggestions on recycling and improving sustainability were also brought up, these included for example the usage of paper and waste management within the office surroundings and on board.

The existing measurements were stated in the questionnaire and based on the answers, the most effective measures are Electronic Flight Bags, Hazardous waste sorting and Re-using material/items/tools wherever possible. These were also a point of concern in the open comment section.

As comparing the goals vs. the most effective measures, the answers state that many feel that there is some need in the investigation and investing to more effective aircraft, which was also brought up in open answers. Most of the answerers were working within aircrafts, so this is understandable.

Based on the results of the research, the author has formed environmental KPIs (see Table 4), using also the theory from Chapter 4.

Table 4. KPI determination

• Material consumption	Annual/Monthly/Weekly usage of paper cups
• Reusing tools where possible	Annual/monthly usage of new tools/provisions
• Reduce waste	% of reduces waste to measure monthly/weekly
• Employee awareness	% of employees participated in environmental projects/meetings/trainings/webinars OR number of training hours on sustainability
• Reduced fuel usage rate	% of reduced fuel consumption based on annual reports
• Innovative technology e.g. hydrogen technology	% of new investments supporting environmental technology

Material consumption was brought up in the open answer but also in the questions 2 and 3 to be found one of the most effective measures. The data timing is dependant on the commissioner. Traditional KPIs are to be tracked by managers nearly daily, however in KPIs covering sustainability it might be more beneficial to track it on an annual level, as in aviation e.g. the high seasons and density of work varies. (Lucas 1 February 2022.) This KPI also aligns with SDG 11, Sustainable cities and communities; SDG 12, Responsible consumption and production and SDG 13, Climate Action.

Reusing tools was also often mentioned and most voted for the goal to follow, and it received a great deal of votes for being an effective measure for sustainability in general. Reusage is also mentioned in the theory in chapter 2, as it is an important measure to support environmental sustainability. The easiest way to measure reusing tools is to count it monthly or annually to see the rates. SDGs aligning with this KPI are SDG 11, Sustainable cities and communities; SDG 12, Responsible consumption and production and SDG 13.

Reducing waste was also presented in various parts of the questionnaire. There are several ways to measure waste reduces, one of the easiest ways to track it is simply weighing it, and that way affecting the mentality of the workplace in creating waste. There are several ways to improve waste management but implementing a material consumption system or tracking the recycling chain can be most beneficial, according to Stead (11 March

2015.) Waste consumption has a direct affect on sustainability all around. SDG 11, Sustainable Cities and communities; SDG 12, Responsible consumption and production and SDG 13, Climate action; SDG 14 Life below water; SDG 15, Life on land are aligning with this KPI.

Employee awareness, and especially engaging employees with positive environmental view was brought up in the survey in all parts. According to McIlwraith (2006, 2), awareness is not just publicity, but rather making sure people know the full picture. Implementing information can happen through policies, procedure, education, training, or audit/compliances. (McIlwraith, 13.) To put it in an indicator, employee engagement can be surveyed by direct questions, as for example in a questionnaire as used in this research, or by measuring the number of employees participating in sustainability related activities, or as a number of hours spent on training the employees monthly/annually. This indicator also might decrease the number of "difficult to say" and improve the response rates in the future questionnaires. Chapter 3 indicated information on employee engagement and CSR that can be connected to the utilization of this KPI. SDG 13, Climate action and SDG 12, Responsible consumption and production are aligning with this KPI.

Fuel consumption in the aviation industry is important, but also challenging to reduce, as Finnair also states in their website (2021). Many things affect on the increase of the fuel consumption, such as weather, flight routes, weight, taxiing length at airports and the usage of airspace, not to mention the features of the aircraft itself; Size, age, energy efficiency (Finnair 2021). These measurements cannot always be most optimal for every flight, which then affects the fuel consumption, but tracking it may still be beneficial for sustainability purposes, as e.g. in the future the needed SAF can be calculated. Therefore, annual, or half annual reports by % may be useful. As fuel consumption relates to several states of sustainability in the supply chain (Inputs, Operations, Products), most of the SDGs stated in the thesis align with it.

Usage of new technology, hydrogen, and new fleet is stated on various parts, thus implementing can be challenging. To put it to an environmental key performance indicator, the IMPD (2019, 12) suggests using a percentage to map success in implanting this goal out of the total amount of new investments. This way it is not taking account the past, but rather looking to the future, and the company can only do better. SDG 7, affordable and clean energy; SDG 11 11 sustainable cities and communities align with this KPI.

7.2 Validity and Reliability

According to Carmines & Zeller (1979, ch. 2), validity is defined as the extent to which any measuring instrument measures what it is intended to measure. Validity is measured by the truthfulness of the results (Vehkalahti, K. 2008, 40). In this research validity is measured by asking specific questions concerning the topic of the thesis, and therefore it can be seen as valid. The structure of the research was previewed by the supervisor and the sustainability officer of Xfly, and the pre-testing of the questionnaire was conducted with the management of the company before releasing.

For reliability Carmines & Zeller (1979) refer as "tendency toward consistency found in repeated measurements of the same phenomenon". Reliability can be measured for example in a way if this thesis was researched by someone else than the author and gotten the same results. As the researcher was in no contact with the respondents and the questionnaire was answered anonymously and it was only accessible through the company's internal websites through their accounts, the research can be perceived as reliable.

7.3 Evaluation

The aim to find out the employee perception towards sustainability is achieved and the KPI suggestions were formed based on the theory and the employee feedback received from the survey. The created KPIs could be implemented into the sustainability plans for the future of Xfly, with the modifications the commissioner sees suitable for their needs.

The objectives of this thesis are reached in theory. Overall, the results showed rather clearly the general perception where the employees find that the company could do better and also managed to analyse the specific opinions between the operative countries. However, there is still room for a deeper, qualitative research between the countries and sectors. In the research, most of the answers came from flight crew/cabin crew and therefore the answers align to their perceptions.

The research was finished in time, thus some parts took longer than the author expected. The theoretical framework was executed as planned and a lot of sources both online and offline were implemented in the writing process. The commissioner had ideas and information what could be included in the theory, and the requests were noted and included in writing, although not all answered directly to the main objectives. Empirical part was conducted and processed in time; thus, the survey was delayed due to scheduling issues between the parties. Nonetheless, the questionnaire was successful and helpful when it came down to finding out the perception and creating KPIs.

For to following research would be beneficial to find out how to improve motivation towards sustainability within the workplace, as it was divided. If any new methods for improving sustainability are being assessed within the company after the research, follow-up research could also be beneficial to find out if the perception of sustainability improves, and how effective the implemented KPIs are in the environmental point of view.

Also, as mentioned earlier, there could be a more detailed, qualitative research on the topic that would go deeper to the reasons behind the general perceptions and to find out how one may improve it.

7.4   Learning Outcomes

The topic was extremely interesting as aviation is generally seen as the most polluting form of traveling, and therefore I genuinely wanted to know whether the employees would feel the stigma, although aviation has improved deeds a great deal during the recent years.

Most of the concepts in the thesis were rather familiar, thus the previous studies in aviation management. However, coming from a tourism background and only specializing in aviation management was also something that I considered as if I had enough knowledge for a thesis that would be more of aviation related, but as it is where I want to head in the future, I was up for the challenge. The specialization indeed proved to be a great deal useful as the familiar terms came across and played a part in the theory of this research.

There was a lot of different material found on both online and offline sources. During the process I became better in critical reading through analysing different material that I had found. It was inevitable to read some non-academic sources as well, as not all the new information especially in aviation is yet found from the academic books or reports.

A factor that caused me a little bit stress over the process was the fact that I worked while writing this thesis. Therefore, sometimes it felt as if I did not have enough capacity for concentrating on both at the same time, especially as the planned writing time was only three months. I was anyhow determined to get the process finished by the end of the semester, and that would sometimes mean long days. Luckily, during the last weeks of working on this thesis I was able to put more concentration on finalizing the writing process and have fewer workdays.

One of the biggest challenges brought up during the thesis was keeping up with the equation of timing and communication. The schedule was not always up to me as meetings sometimes got cancelled and postponed, and sometimes I had to wait for an answer for a

while before I could proceed, which always then messed up the original plan a bit. However, I learned self-control, and prioritizing throughout the process; when I could not do what I had planned to do, I used the time on modifying other parts of the thesis.

The questionnaire creation taught me a lot, it took multiple versions and meetings and sometimes the instructor's advice differed from the commissioners, but it ended up answering my sub-questions and got the data I needed.

Thus, the commissioner is located in another country, the past times of the pandemic had already perfected remote working, and therefore communication was smooth and simple with the company.

Overall, I am happy of how the research turned out and it gave me many new perspectives that I can use in the future.

References

Allen, E., Seaman, C. 2007. Likert Scales and Data Analyses. Quality Progress. Milwaukee. Vol 40, Iss. 7. Accessed: 15.5.2022.

Beattie, A. 2021. The Three Pillars of Corporate Sustainability. URL: https://www.investopedia.com/articles/investing/100515/three-pillars-corporate-sustainability.asp Accessed: 30.4.2022.

Bonera, B., Corvi, E., Codini, A. & Ma R. 2017. Does Nationality Matter in Eco-Behaviour? Brescia. URL: https://www.mdpi.com/2071-1050/9/10/1694 Accessed: 26.3.2022.

Braun, R. 2008. Recommendations on Social Responsibility. URL: https://www.researchgate.net/publication/322757927_GSZT_Recommendations_on_Social_Responsibility Accessed: 30.3.2022.

Bridger, E. 2014. Employee Engagement. Kogan Page Ltd. London. E-book. Accessed: 20.3.2022.

CAA UK, Civil Aviation Authority, 2014. Environmental impact of aviation. URL: https://www.caa.co.uk/consumers/environment/information-on-the-environmental-impact-of-aviation/ Accessed: 17.3.2022.

Carmines, E. & Zeller, R. 1979. Reliability and validity assessment. Sage Publications Inc. E-book. Accessed: 13.4.2022.

Chandler, D. & Werther, B. 2017. Strategic Corporate Social Responsibility: Sustainable value creation. 4th ed. SAGE publ. Los Angeles.

Clasen, D. L. & Dormody, T. J., 1994. Analyzing Data Measured by Individual Likert Type Items. Journal of Agricultural Education.

Dell, T. & Crisp, M. 1993. Motivating at Work Empowering Employees to Give Their Best. Safari Tech Books Online. Boston. E-book. Accessed: 9.4.2022.

Destination 2050, 2021. Full Report. URL: https://www.destination2050.eu/wp-content/uploads/2021/03/Destination2050_Report.pdf Accessed: 17.3.2022.

EASA, 2022. Overview of Aviation Sector. URL: https://www.easa.europa.eu/eaer/topics/overview-aviation-sector Accessed: 14.3.2022.

EASA, 2022b. Market Based Measures. URL: https://www.easa.europa.eu/eaer/top-ics/market-based-measures Accessed: 14.2.2022.

Eurocontrol, 2021. CORSIA and the EU's Emissions Trading System: How Eurocontrol supports European aviation to foster sustainability URL: https://www.eurocontrol.int/arti-cle/corsia-and-eus-emissions-trading-system-how-eurocontrol-supports-european-avia-tion-foster Accessed: 25.2.2022.

European Commission, 2022a. EU Emissions Trading System (EU ETS). URL: https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets_en#ecl-inpage-690 Accessed: 3.3.2022.

European Commission, 2022b. Climate Strategies and Targets. 2050 Long-Term Strategy. URL: https://ec.europa.eu/clima/eu-action/climate-strategies-targets/2050-long-term-strat-egy_en Accessed: 2.3.2022.

European Environment Agency, 2020. Estonia Country Profile – SDG's and the Environ-ment. URL: https://www.eea.europa.eu/themes/sustainability-transitions/sustainable-de-velopment-goals-and-the/country-profiles/estonia-country-profile-sdgs-and Accessed: 2.3.2022.

European Environment Agency, 2020. Lithuania Country Profile – SDG's and the Environ-ment. URL: https://www.eea.europa.eu/themes/sustainability-transitions/sustainable-de-velopment-goals-and-the/country-profiles/lithuania-country-profile-sdgs-and Accessed: 16.4.2022.

Finnair 2021. Perfectly Sustainable Flight Look Like. URL: https://www.fin-nair.com/en/bluewings/sustainability/what-would-a-perfectly-fuel-efficient-flight-look-like--2230614 Accessed: 29.4.2022.

Finnair 2022. Sustainability. URL: https://www.finnair.com/en/bluewings/sustainability Ac-cessed: 14.5.2022.

Forbes 2020. 10 Most Green Countries in the World. URL: https://www.forbes.com/sites/tamarathiessen/2020/06/05/10-most-green-countries-eu-rope-us-ranks-24-environment/?sh=43bcbb775add Accessed: 28.2.2022.

Forbes 2021. Gen Z Is Emerging as The Sustainability Generation. URL:
https://www.forbes.com/sites/gregpetro/2021/04/30/gen-z-is-emerging-as-the-sustainabil-
ity-generation/?sh=4d5a969a8699 Accessed: 17.3.2022.

Gutterman, A. 2021. Strategic planning for sustainability. Business Expert Press 2021.
New Jersey. E-book. Accessed: 2.5.2022.

Haanaes, K. 11/2016. Why all businesses should embrace sustainability. International In-
stitute for Management Development. URL: https://www.imd.org/research-knowledge/arti-
cles/why-all-businesses-should-embrace-sustainability/ Accessed: 5.5.2022.

Hajkowicz, S. 2015. Global Megatrends: Seven Patterns of Change Shaping Our Future.
CSIRO Publishing. Clayton. E-book. Accessed: 16.4.2022.

Hirsjärvi, S., Remes, P. & Sajavaara, P. 2009. Tutki ja kirjoita. Tammi. Hämeenlinna.

Hofstede, 2022. Country Comparison Estonia, Sweden, Denmark. URL: https://www.hof-
stede-insights.com/country-comparison/denmark,estonia,sweden/ Accessed: 25.2.2022.

Hopkins, B. 2009. Cultural differences and improving performance: how values and beliefs
influence organizational performance. Routledge. New York. E-book. Accessed: 5.5.2022.

ICAO, 2018. Thirteenth Air Navigation Conference. International Civil Aviation Organiza-
tion. Montréal. URL: https://www.icao.int/Meetings/anconf13/Docu-
ments/WP/wp_034_en.pdf Accessed: 3.5.2022.

ICAO, 2022. Economic impacts of COVID-19. URL: https://www.icao.int/sustainabil-
ity/Pages/Economic-Impacts-of-COVID-19.aspx Accessed: 3.3.2022.

International Civil Aviation Organization, 2022. Future of Aviation. URL:
https://www.icao.int/Meetings/FutureOfAviation/Pages/default.aspx Accessed: 24.2.2022.

IPICC, 2018. Summary for policymakers. URL: https://www.ipcc.ch/sr15/chapter/spm/ Ac-
cessed: 14.3.2022.

Lucas, P. 1 February 2018. Airport markets and seasonal variations. ACI Insights. URL:
https://blog.aci.aero/airport-markets-and-seasonal-variations/ Accessed: 30.4.2022.

Marr, B. 2012. Key Performance Indicators. Pearson Business. London. E-book. Accessed: 12.5.2022.

Maund, B. 2003. Perception. 1st ed. Acumen. New York. E-book. Accessed: 3.5.2022.

McIlwraith, A. 2006. Information Security and Employee Behaviour: How to Reduce Risk Through Employee Education, Training and Awareness. 1st Edition. Taylor & Francis Group. Hampshire. E-book. Accessed: 30.4.2022.

Mäkipeska. M & Niemelä, T. 2005. Haasteena Luottamus – Työyhteisön sosiaalinen pääoma & syvärakenne. 1st edition. Edita Publishing.

NBAA, 2022. Electronic Flight Bags. URL: https://nbaa.org/aircraft-operations/communications-navigation-surveillance-cns/electronic-flight-bags/ Accessed: 20.3.2022.

Nordica, 2022. The company. URL: https://www.nordica.ee/en/about-the-company/company/ Accessed: 3.3.2022.

Nousiainen, S. 2020. Sukupuoleen katsomatta. Kuinka kohdata moninaisuus. 1st Edition. Atena Kustannus Oy. EU.

OECD 2021. 1. Gender and the Environment. Building Evidence and Policies to Achieve the SDGs URL: https://www.oecd-ilibrary.org/sites/3d32ca39-en/1/3/1/index.html?itemId=/content/publication/3d32ca39-en&_csp_=c53c4487bc06c0c37d4c3c821248d030&itemIGO=oecd&itemContentType=book Accessed: 16.4.2022

OECD 2022 The Organisation for Economic Co-operation and Development 2022. Sustainable manufacturing indicators. URL: https://www.oecd.org/innovation/green/toolkit/oecdsustainablemanufacturingindicators.htm Accessed: 28.1.2022.

OECDa The Organisation for Economic Co-operation and Development 2021. Denmark. URL: https://www.oecd-ilibrary.org/sites/5a3efe65-en/1/3/15/index.html?itemId=/content/publication/5a3efe65-en&_csp_=2ffa7a733148fec42dccf926d7619e1c&itemIGO=oecd&itemContentType=book&_ga=2.25588733.1354229521.1632381415-788548927.1632381414 Accessed: 19.4.2022.

OECDb The Organisation for Economic Co-operation and Development 2021. Finland. URL: https://www.oecd-ilibrary.org/sites/5a3efe65-en/1/3/32/index.html?itemId=/content/publication/5a3efe65-en&_csp_=2ffa7a733148fec42dccf926d7619e1c&itemIGO=oecd&itemContentType=book&_ga=2.25588733.1354229521.1632381415-788548927.1632381414 Accessed: 19.4.2022.

OECDc. The Organisation for Economic Cooperation and Development 2021. Lithuania. URL: https://www.oecd-ilibrary.org/sites/5a3efe65-en/1/3/32/index.html?itemId=/content/publication/5a3efe65-en&_csp_=2ffa7a733148fec42dccf926d7619e1c&itemIGO=oecd&itemContentType=book&_ga=2.25588733.1354229521.1632381415-788548927.1632381414 Accessed: 19.4.2022.

Parmenter, D. 2015. Key Performance Indicators: Developing, Implementing, and Using Winning KPIs, 3rd Edition. New Jersey. E-book. Accessed: 3.5.2022.

QuestionPro, 2022a. Quantitative Research. URL: https://www.questionpro.com/blog/quantitative-research/ Accessed: 14.3.2022.

QuestionPro, 2022b. Semantic Scale. URL: https://www.questionpro.com/semantic-differential-scale.html Accessed: 13.4.2022.

Research, 2021. Primary Research Vs Secondary Research. URL: https://research.com/research/primary-research-vs-secondary-research Accessed: 14.3.2022.

Rout E., 2017. A Psychological Perspective of Employee Engagement: Implications for Educational Institutions. International Journal of Management and Social Sciences. Researchgate. URL: https://www.researchgate.net/publication/317640308_A_Psychological_Perspective_of_Employee_Engagement_Implications_for_Educational_Institutions Accessed: 24.3.2022.

Rozner, S. 2014. Developing Key Performance Indicators – A toolkit for Health Sector Managers. Health Finance and Governance Project. United States. URL: https://www.hfgproject.org/wp-content/uploads/2014/10/03-Developing-Key-PerformanceIndicators.pdf Accessed: 4.3.2022.

Sapsford, R. 2007. Survey research. 2nd edition. SAGE. California. E-book. Accessed: 30.3.2022.

Saris W. & Galhofer I., 2014. Design, Evaluation, and Analysis of Questionnaires for Survey Research. 2nd Edition. Wiley. Barcelona. E-Book. Accessed: 14.2.2022.

SAS Group. Sustainability. URL: https://www.sasgroup.net/sustainability/ Accessed: 15.2.2022.

Science Daily. Millennials and Generation Z are more sustainability-orientated -- even when it comes to money, researchers find. URL: https://www.sciencedaily.com/releases/2021/03/210331103635.htm Accessed: 17.2.2022.

Stead, D. 11 March 2015. 4 Tips for Creating a Better Waste Management Plan. Recycle RRS. URL: https://recycle.com/4-tips-waste-mgt-plan/ Accessed: 30.4.2022.

Stoessner, S. & Sherman J. 2015. Social Perception from Individuals to Groups. 1st ed. Psychology Press. New York.

Sun L. & Bunchapattanasakda C., 2019. Employee Engagement: A Literature Review. Phantum Thani. URL: https://www.researchgate.net/publication/330139773_Employee_Engagement_A_Literature_Review Accessed: 27.3.2022.

Sustainable Development, 2020. Main Messages from Estonia's voluntary national review 2020. URL: https://sustainabledevelopment.un.org/content/documents/26136Estonia_Main_messages_VNR_Estonia_2020_700.pdf Accessed: 3.2.2022.

Sustainable Development Report 2021. The Decade of Action for the Sustainable Development Goals. Cambridge. URL: https://s3.amazonaws.com/sustainabledevelopment.report/2021/2021-sustainable-development-report.pdf Accessed: 11.3.2022.

Sweden 2021. Sweden and Sustainability. URL: https://sweden.se/climate/sustainability/sweden-and-sustainability Accessed: 9.10.2022.

TUIFly NL 2022. Sustainability. URL: https://www.tuifly.be/en/legal/sustainability Accessed: 10.4.2022.

TUI Group 2021. TUI Aviation strengthens sustainability transformation. URL: https://www.tuigroup.com/en-en/media/stories/2021/2021-04-30-tui-aviation-strengthens-sustainability-transformation Accessed: 10.4.2022.

Twin, A. 2021. Key Performance Indicators (KPIs). URL: https://www.investope-
dia.com/terms/k/kpi.asp Accessed: 13.4.2022.

Uke, K. 17 February 2022. Environmental Officer. Xfly. Discussion. Teams.

Uke, K. 20 May 2022. Environmental Officer. Xfly. Email.

UN United Nations Global Compact 2015. The SDG Compass. Full report. URL:
https://www.unglobalcompact.org/library/3101 Accessed: 10.5.2022.

UN United Nations 2022a. Sustainable Development Goals. URL:
https://sdgs.un.org/goals Accessed: 10.4.2022.

UN United Nations 2022b. Climate Change. URL: https://www.unglobalcompact.org/what-
is-gc/our-work/environment/climate. Accessed: 4.3.2022.

UNRIC 2021. Sweden to Host the World Environment Day 2022. URL: https://un-
ric.org/en/sweden-to-host-world-envionment-day-2022/ Accessed: 28.2.2022.

Vehkalahti, K. 2008. Kyselytutkimuksen mittarit ja menetelmät. Tammi. Vammala.

Vilkka, H. 2015. Tutki ja kehitä. 4th Renewed edition. PS-kustannus. Jyväskylä.

Xfly 2022. Our Story. URL: https://xfly.ee/our-story/ Accessed: 6.4.2022.

Walliman, N. 2011. Research Methods: The Basics. Routledge Ltd. New York.

WGTN 2019. Why Do Women Care More About the Environment Than Men? URL:
https://www.wgtn.ac.nz/__data/as-
sets/pdf_file/0011/1776422/Why_do_women_care_more_about_the_environ-
ment_than_men.pdf Accessed: 24.3.2022.

WHO World Health Organization Europe, 2022. SDG 13: Health and climate action. URL:
https://www.euro.who.int/en/health-topics/health-policy/sustainable-development-
goals/publications/2019/policy-briefs-on-health-and-the-sustainable-development-
goals/sdg-13-health-and-climate-action Accessed: 24.3.2022.

Wiernik, Ones, Dielcherk, 2013. Age and environmental sustainability: a meta-analysis.
URL: https://www.emerald.com/insight/content/doi/10.1108/JMP-07-2013-0221/full/html
Accessed: 9.4.2022.

Appendices

Appendix 1. Survey

Employee Perception on Environmental Sustainability

Welcome to the questionnaire of Employee Perception on Environmental Sustainability. This questionnaire is created as a part of a Bachelor's thesis of Haaga-Helia University of Applied Sciences for Nordic Aviation Group AS.

The questions are divided into 5 main sections. Answering to this questionnaire will take approximately 5 minutes.

The questionnaire is answered anonymously.

...

Personal Data

In this section we will ask some general questions about you. In case these are too personal you can choose "Prefer not to say".

1. Age *

○ 18-25

○ 26-40

○ 41-55

○ 56 and above

○ Prefer not to say

2. Gender *

○ Woman

○ Man

○ Non-binary

○ Prefer not to say

Employment Related Data

In this section couple of work-related questions are asked. For some questions it is possible to select multiple answers.

3. For how long have you been working with our company? *

○ < 1 year

○ 1-3 years

○ 3-5 years

○ 5+ years

4. In which country do you work? *

☐ Estonia

☐ Sweden

☐ Denmark

☐ Lithuania

☐ Finland

☐ Prefer not to say

5. Please select the area where do you work most of your time: *

☐ Office

☐ P-145

☐ Flight Crew

☐ Cabin Crew

6. My role in the company: *

If not working in a Management or Manager position, please select Specialist.

○ Management or Manager

○ Specialist

Environmental Values & Habits

In this section we try to understand your values and habits towards sustainability.

7. How do you feel about the statements below: *

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Environmental sustainability is important.	○	○	○	○	○
I am interested in sustainability topics.	○	○	○	○	○
I actively contribute to sustainable practices.	○	○	○	○	○
I notice the things my company is doing to improve sustainability.	○	○	○	○	○
I think our airline is strongly committed to sustainability.	○	○	○	○	○
I read the sustainability section in the monthly newsletter.	○	○	○	○	○
Our airline should improve the environmental sustainability in general.	○	○	○	○	○
I could improve sustainability in my work station. (e.g. sort waste, use less paper and plastic, etc.)	○	○	○	○	○

Environmental Measures, Goals and Challanges

In this section we would like to hear your opinion and thought on different sustainability related topics.

8. This is a list of current environmental measures within the company. How effective do you find the following actions? *

	Very ineffective	Somewhat ineffective	Difficult to say	Somewhat effective	Very effective	Have not heard
Environmental Policy	○	○	○	○	○	○
Sustainability section in monthly newsletter	○	○	○	○	○	○
European Green Office program	○	○	○	○	○	○
Paper reusing system	○	○	○	○	○	○
Carbon footprint mapping	○	○	○	○	○	○
Digital business cards instead of paper	○	○	○	○	○	○
EU ETS and CORSIA (Schemes aiming to reduce greenhouse gas and CO2 in Europe)	○	○	○	○	○	○
Electronic Flight Bag (Paperless cockpit)	○	○	○	○	○	○
Carbon offset on commuting flights	○	○	○	○	○	○
Reusing materials/items/tools where possible	○	○	○	○	○	○
Hazardous waste sorting in the hangar	○	○	○	○	○	○
Energy efficient lights in the office	○	○	○	○	○	○
Usage of Ecolabel cleaning products and office paper	○	○	○	○	○	○
Sorting waste in the office	○	○	○	○	○	○
Using 100% green electricity in the office, hangar and terminal.	○	○	○	○	○	○
Raising environmental awareness (trainings, lectures, excursions etc.)	○	○	○	○	○	○

9. In case you find anything missing in the previous table, please write it here. You may also add your opinion on the effectiveness of that missing measure.

> Kirjoita vastaus

10. Which of the environmental sustainability goals in your opinion would be the most important to follow within our company? *

Choose up to 7 goals.

- [ ] Raising employees' environmental awareness

- [ ] Improve positive environmental view among employees with reachable goals and acknowledgement

- [ ] Hold European Green Office certificate

- [ ] Hold ISO 14001 Environmental Management System certificate

- [ ] Reduce office consumables (water, electricity, paper, etc.)

- [ ] Waste reduction in the office

- [ ] Reduce fuel usage (CDA landings, fuel management, etc.)

- [ ] Reduce noise from flights

- [ ] Offset our emissions (invest in natural environment and wildlife conservation projects, planting trees, etc.)

- [ ] Waste reduction on our own commercial flights

- [ ] Taking into account sustainability criteria in procurement process

- [ ] Become carbon neutral airline by 2050

- [ ] Become carbon neutral airline by 2035

- [ ] Increase usage of Sustainable Aviation Fuels on flights under our own callsign

- [ ] Investigate and invest in long-term solutions such as hydrogen

- [ ] Investigate and invest in more efficient aircraft

- [ ] Increase recycling and upcycling practices

- [ ] Muu

Conclusion & Discussion

In this section you can express your overall satisfaction with sustainability measures in the company. We are also very interested to hear your ideas, how we could improve sustainability measures within our company.

11. How would you rate the overall communication on **environmental** sustainability topics during the last year by the company? (1-very poor; 5-excellent) *

Actions related to preserve nature and protecting global ecosystems.

1	2	3	4	5
○	○	○	○	○

12. How would you rate the overall communication on **social** sustainability topics during the last year by the company? (1-very poor; 5-excellent) *

Human rights, diversity, work life balance.

1	2	3	4	5
○	○	○	○	○

13. How would you rate the overall communication on **financial** sustainability topics during the last year by the company? (1-very poor; 5-excellent) *

Long-term economic growth without negatively affecting environment.

1	2	3	4	5
○	○	○	○	○

14. How could we improve environmental sustainability within our company?

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