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# **TRAVEL SAFETY AND OCCUPATIONAL HEALTH AND SAFETY INSTRUCTIONS**

Faculty of Engineering Sciences  
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# ABSTRACT

Suvi Isotalo: Travel safety and occupational health and safety instructions  
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The purpose of this study is to improve the safety of the engineering office by updating the occupational safety instructions and travel safety instructions. The studied engineering office has grown into a global operator, so updating the safety instructions into a uniform format was deemed necessary.

In order to achieve this goal, materials were collected from literature, legislation and through interviews and surveys. The interviews were used to find out how safety is seen and experienced at different offices of the studied company in Finland. There were 11 interviewees from different hierarchy levels in the organisation giving a more holistic view of how safety is perceived in the offices. The interviews showed that the familiarization process is important in terms of how well the employee knows the safety issues in their office. There were differences in work ergonomics between the offices, and especially during business trips, work ergonomics can sometimes be unsuitable. Accidents and near-miss situations do not often occur in office conditions but have occurred on sites in rare occasions.

The interviewees made domestic and foreign trips, with the shortest trips being trips of a few days and the longest trips being several weeks.

The instructions were created based on literature sources, legislation, requirements and interviews. Which enables the organization to instruct and manage in safety matters.

Before the actual implementation a pilot phase was carried out for the instructions, after which some modifications were made to the them before implementation. Two instructions were created during the study: A Travel Safety Instruction and an Occupational Safety Instruction.

The created Occupational Safety Instruction replaces the current instruction used by the organization, as it covers a wider range of subjects and it better represents what modern Occupational Safety Instructions should include. The new Travel Safety Instruction will replace the current instructions, as the new ones will better prepare employees for successful travel and provide better instructions for crisis situations. The new instruction contains important contact information, which provides traveling employees and managers information on who to contact when surprising and unexpected situations arise.

Keywords: Occupational Health and Safety, business traveling, travel safety, safety management, constructive research

# TIIVISTELMÄ

Suvi Isotalo: Matkustusturvallisuus- ja työturvallisuusohjeistukset  
Diplomityö  
Tampereen yliopisto  
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Tässä diplomityössä parannettiin insinööritoimiston turvallisuutta päivittämällä heidän käyttöönsä työturvallisuusohjeistus sekä matkustusturvallisuusohjeistus. Insinööritoimisto on kasvanut globaaliksi toimijaksi, joten turvallisuusohjeistusten päivittäminen katsottiin toimeksiantajalla tarpeelliseksi.

Tavoitteen saavuttamiseksi työtä varten kerättiin aineistoa kirjallisuudesta, lainsäädännöstä, haastattelujen ja tutkimusten avulla. Haastattelujen avulla pyrittiin selvittämään, miten turvallisuus nähdään ja koetaan organisaation eri Suomen toimipisteillä. Haastateltavia oli 11, ja he olivat eri hierarkia asemassa organisaatiossa, jolloin saatiin kokonaisvaltaisempaa käsitystä, miten turvallisuus koetaan toimistoilla.

Haastattelut osoittivat sen, että perehdytyksellä on merkitystä sen suhteen, kuinka hyvin työntekijä tuntee toimistonsa turvallisuusasiat. Eri toimistojen välillä oli eroja työergonomian suhteen ja varsinkin työmatkojen aikana työergonomia saattaa välillä olla huonoa. Onnettomuuksia ja läheltä piti-tilanteita harvemmin sattuu toimisto-olosuhteissa, vaan ne ovat sattuneet työmaalla, vaikkeivat sielläkään yleisiä ole olleet. Haastateltavat tekivät kotimaan, että ulkomaan matkoja, jolloin matkat saattoivat lyhimmillään olla päivän matkoja ja pisimmillään useiden viikkojen työkomennuksia

Kirjallisuuslähteiden, lainsäädännön, vaatimusten sekä haastatteluiden pohjalta luotiin sekä työturvallisuusohjeistus- että matkustusturvallisuusohjeistusmalli, joiden avulla organisaatiossa pystytään hallita ja ohjeistaa turvallisuusasioissa. Ennen varsinaista käyttöönottoa ohjeistuksille suoritettiin pilotointivaihe, jonka jälkeen tehtiin vielä muutamia muokkauksia ohjeistuksiin, ennen varsinaista käyttöönottoa.

Työn aikana saatiin kehitettyä kaksi ohjeistusta: työturvallisuusohjeistus sekä matkustusturvallisuusohjeistus. Työturvallisuusohjeistusta korvaa aiemmin organisaatiossa käytössä olleen ohjeistuksen, sillä se laajempi ja vastaa paremmin siihen, millaisia työturvallisuusohjeita yrityksissä tulisi olla käytössä. Uusi matkustusturvallisuusohjeistus tulee korvaamaan nykyisen matkustusohjeistuksen, sillä siinä olevat ohjeistukset valmistavat paremmin työntekijää onnistuneeseen matkan tekoon sekä antavat ohjeita kriisitilanteiden varalta. Matkustusturvallisuusohjeistukseen on kerätty tärkeät kontaktitiedot, joiden avulla matkustava työntekijä tai esimies tietävät mihin olla yhteydessä yllättävien tilanteiden tullessa vastaan.

Avainsanat: työturvallisuus, matkustusturvallisuus, työmatkustus, turvallisuusjohtaminen, konstruktiiivinen tutkimus

Tämän julkaisun alkuperäisyys on tarkastettu Turnitin OriginalityCheck –ohjelmalla.

## **PREFACE**

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Finally, I would like to thank Valtteri, my family and friends, who have encouraged and supported me during my studies and during this eventful Master thesis project. Grandma, the thesis is finally done and I will be receiving my Master's degree.

Jyväskylä, 4 August 2019

Suvi Isotalo

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## LIST OF SYMBOLS AND ABBREVIATIONS

EB	Executive Board
EEA	European Economic Area
EU-OSHA	European Agency for Safety and Health
ILO	International Labour Organization
IoT	Internet of Things
OHS	Occupational Health and Safety
OHSA	Occupational Health and Safety Act
OHSI	Occupational Health and Safety Instruction
OSH-MS	Occupational Safety and Health Management System
TSI	Travel Safety Instruction



# 1. INTRODUCTION

Every day people die in occupational accidents around the world. Most of those accidents are preventable. Occupational accidents not only cause death and illness, they also have an effect on the economy of companies, due to the several costs caused to the company. (International Labour Organization 2013; International Labour Organization N.d) In the year 2015, 1.83 fatal accidents per 100 000 workers were reported in the EU area, Finland had a value of 1.44 (eurostat Statis Explained 2018). These statics do not reveal if entrepreneurs or agricultural entrepreneurs have been considered in the values. Accidents at work in the technology industry in Finland have been lower, and accidents at work have decreased significantly between the year 2005 and 2015 (Työturvallisuuskeskus 2017).

The success of an engineering office is dependant of several factors, and one important key is the mental and physical well-being of the employees, because it affects the safety of offices (Suomen Riskienhallintayhdistys PK-RH-Riskienhallinta N.d). Companies in the technology industry are competitively tendering their business deals more, which increases the competition between different engineering offices. In competitive situations the company that is acquiring the service is interested in the technological know-how of the supplying company as well as how the security and safety aspects are handled within the supplying company. Defects in those matters increase the number of sick days and weaken the productivity of an employee.

Globalization is increasingly affecting engineering offices; due to globalization the movement of workers has increased. Business traveling has increased, and it is predicted that business travel and assignments will increase more in the future (Haatainen et al. 2009; Rauramo 2017). Because of the increased mobilization of employees, key persons of the company are traveling more and spending time at public transports, airports and other stations and hotels, where the possibility of harms and hazards that can cause harm to physical health and safety are more present (Rauramo 2017).

The safety of the employees should be secured whether the employee is working in home country office conditions or working abroad. Occupational health and safety instructions (OHSI) and Travel safety instructions (TSI) are important tools for employee

wellbeing. With OHSI and TSI the organization can prepare preventive actions for safety issues in offices and business assignments.

During the past few years, Etteplan has increased its operations, and it has grown into an international engineering office, that wants to be a part of the global market. The growth of the company has had an effect on organization structure of Etteplan, because there are more personnel from different cultures, and Etteplan is responsible for their safety. Safety guidelines of Etteplan meet the legal requirements, however there was a need to upgrade the OHSI and TSI to meet current demands of an engineering office. That is why this study was designed to improve both safety guidelines.

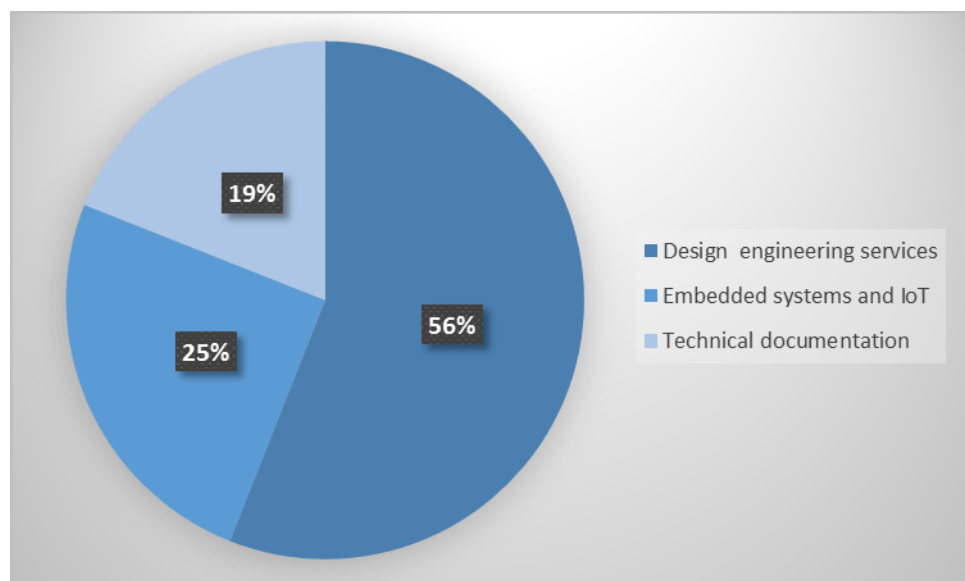
The main goal of the thesis is to generate two different procedures: OHSI and TSI. Those procedures need to be clear and easy to read and understand. During the developing process of both procedures, the minimum safety standards of Etteplan customers should be taken into account. Customers are more aware of how safety and occupational health is handled in engineering offices, so they are paying more attention to it.

The OHSI should contain information that is vital to Occupational Health and Safety (OHS), so when that information is needed it can be easily accessed. And in the TSI information regarding to travel before, during and after business trips as well as what to do in crisis situations and incidents. This work follows the Finnish legislation and procedures as well as EU standards. If other offices of Etteplan that are located in other countries want to use the OHSI and TSI as a basis for their instructions, some changes may be needed due to different legislation.

## 2. CASE COMPANY AND RESEARCH TASKS

### 2.1 Company

The assignor for the master thesis work is Etteplan, which is an engineering office that provides embedded systems and IoT services, design engineering services and technical documentation solutions. The customers of Etteplan are from the technology industry, and the services that Etteplan provides, help with the customers competitiveness during the whole service and product life cycle. As it is shown a Figure 1., 56% of the turnover in 2018 came from design engineering services, which includes the development and design of machines and devices. In 2018 a quarter of the turnover came from embedded systems and IoT and the rest of the turnover came from technical documentation. (Etteplan 2019; Etteplan 1a N.d.)



**Figure 1.** Turnover of Etteplan end of year 2018

Etteplan was founded in 1983 in Hollola, but these days it is a global engineering office. The company has over 3 000 experts who are working in offices located in Finland, Sweden, China, Germany, Poland and the Netherlands. Etteplan is one of the first Scandinavian engineering offices that provide design engineering services and technical documentation solutions in China. In the year 2000, Etteplan listed on Nasdaq Helsinki and between the years 2004 – 2014 the turnover increased from 62 million to 131.9

million. At the end of the year in 2018 turnover of Etteplan was 236.5 million euro and there was a 10.1 % increase of turnover compared to end of 2017. (Etteplan 1a N.d.; Etteplan 2019; Etteplan 1b N.d.)

Experts who work for Etteplan are located in own offices of Etteplan, offices of customers or are on business assignments where customers need them. Most of the employees of Etteplan work with customer related projects and a few employees work with internal projects. There are employees at Etteplan that travel more than others, and they have customer and business meetings and assignment in domestic or abroad. Employees who travel to business meetings abroad are usually managers and project leaders. In this modern world, everything cannot be handled via Skype- meetings, for example some assignments are done to sites where a presence of an employee is required so that they can observe the measurements and installations.

The goal of the study is to improve the safety at work in office conditions, site visits and during the business assignment and trips of the Etteplan organization. Safety at work will be developed with procedures of TSI and OHSI. The current version of the OHSI has its information scattered throughout the intranet of organization, instead of being under one clear directory. The traveling safety instruction which can be found in Etteplan internal website is in Finnish, and it regards the offices in Finland. In addition, it has not been updated in a long time, so it needs some modifications. The development of the new TSI and OHSI were started during the spring of 2018, and the instructions were finished during the summer of 2019. The study and instructions are ready for release in August of 2019.

## **2.2 Research tasks**

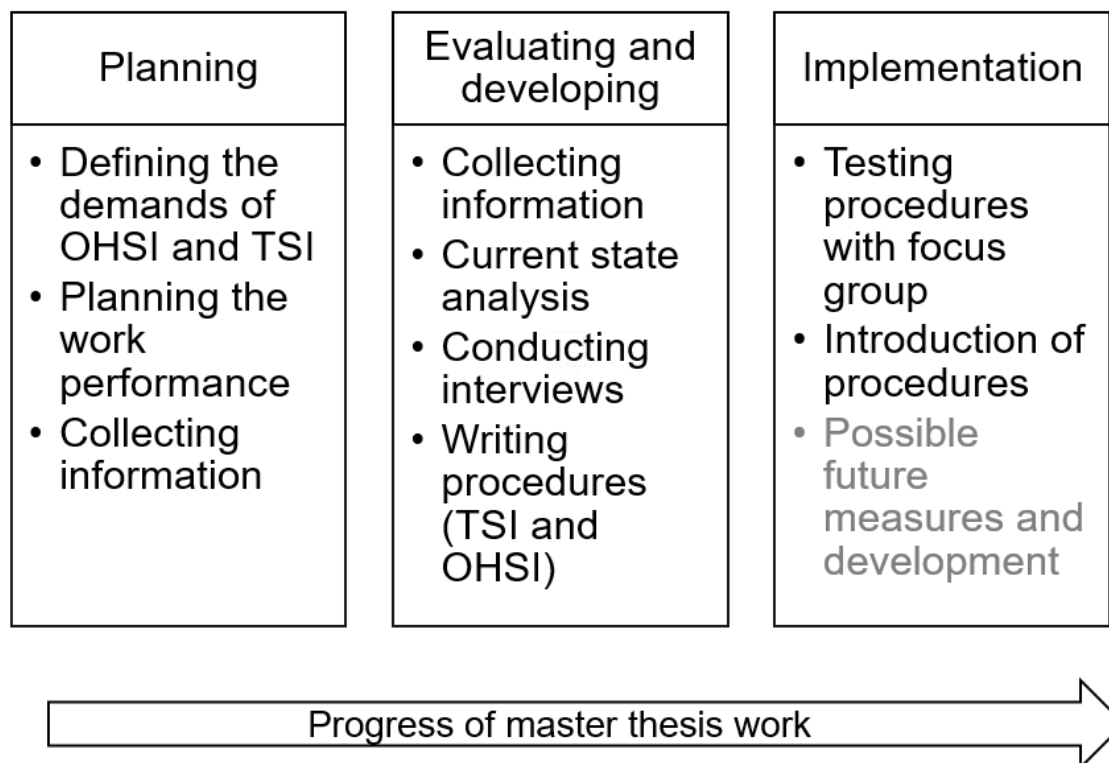
Etteplan has taken part in the developing process, there has been a master thesis work-group which has had a meeting approximately once a month. Group members have given suggestions to what kind of information should be written in the procedures. The master thesis work will consist of three parts. There are two different sets of instructions, OHSI and TSI, which are done for Etteplan and then there is the written master thesis work.

The OHSI will be a general instruction for employees and the employer where their responsibilities and duties on the workplace are explained, what the hazards are at work that could cause harm to a safety and health of employee and how to act in unexpected situations. The OHSI should be a part of the orientation process of new employees. The TSI will be used with employees who are going on business trips or assignments

domestically or abroad. The TSI lists and explains the responsibilities and duties of the employer and employees before, during and after business trips and assignments, as well as listing the emergency contacts and whom to contact in unexpected situations.

This master thesis work is a typical constructive research, because it is suitable for creating solutions for real problems, where results need to be tested before implementing the solutions. Constructive research consists of a problem, and research information is gathered to help resolve the problem. A solution to the problem is based on the research information and the solution is tested in practice. Constructive research strives to demonstrate the functionality and added value of the solution. (Oppariapu N.d.)

The work consists of a real problem to which research information and reference projects have been gathered and familiarized with. The current state of the organization has been studied through studies and interviews, and a solution to the problem has been started with the help of literature. After the initial creation of the instructions, they have been tested with the help of a test group. Small changes are made to the instructions before releasing them, based on the feedback from the test group. The work is contained of three different phases that each have three different parts (Figure 2).



**Figure 2.** Progress of master thesis work

### **2.2.1 Planning**

The planning phase has three stages: defining the demands of the instructions, planning the work performance and the collection of information. At the beginning of the master thesis project, the demands of the master thesis work and instructions were defined. During the planning phase the subject of the thesis was studied in addition and the phases that the work should include.

Customers of Etteplan have defined minimum safety standards, and customers assume Etteplan will comply to those minimum safety standards. Customers are more aware of how safety and occupational health is handled in engineering offices, so they are paying more attention to it. To fulfil requirements of customers, Etteplan should update their processes in order for everyone to know their duties and requirements, and the requirements of customers can be fulfilled.

Material for this work was gathered with help of a literature account. In this master thesis project, the database Andor of internet library of Tampere University of Technology was used to find previous studies and research on the subject. Also, material was gathered from Finlex, which is a service provided by the Ministry of Justice Finland, the Ministry for Foreign Affairs of Finland, The Centre of Occupational Safety, National Institute for Health and welfare, European Commissions pages, and other public organization pages or organizations, that are doing research in travel or the OHS area. Most of the materials are in electric form. The reliability of the material has been studied, if the information gained from the material was considered to be an opinion rather than a fact, it was not used in this work.

### **2.2.2 Evaluation and developing**

The implementation consists of three stages: the collection of information, studying current state analysis with the help of interviews and writing both procedures. Material to the thesis work was gathered as well as its information was used, as well as a current state analysis with interviews was done as well. When the suggestion to conduct interviews was given, the master thesis work- group from side of Etteplan named potential interviewees. Qualifications for taking part in the interviews were that the interviewee works with occupational health and safety, travels or organizes business travels. The interviewees were from different levels of the organization and working in different office locations in Finland. Planning and writing the procedures were started by doing models, what kind of information should be written in procedures, what are the demands of the legislation and how to keep procedures as simple as they can be.

### ***Current state analysis***

Eleven interviews were held, of which nine were skype-meetings and two were face-to-face meetings. The meetings were 30 minutes long, because the brief length of the meetings would ensure more participants. Notes were taken during the interviews and key words and sentences were written down on the question form. And if needed, supplementary questions were asked during the interviews. Meetings were held during one week in March.

The questions were related to occupational health and safety as well as traveling safety. The number of questions that were asked during the interviews depended on the tasks of responder in Etteplan and how much they travel at work. Two of the interviewees were their local offices occupational health and safety representatives and some specific questions were asked from them about occupational health and safety in addition to how it is handled in their offices.

#### *Question of OHSI:*

- Have the employees made any complaints of the working environment?
- Have there been any problems in the offices? Alcohol, bullying...?
- Does occupational health and safety representative tasks add a lot of extra work to your normal workday?
- Do you know who is your offices occupational health and safety representative at your office?
- Do you think that your familiarization to the work was sufficient?
- Have there been accidents or close-calls in your workplace?
- Do you feel that your working environment is pleasant?

#### *Question of TSI:*

- What kind of business trips or assignments have you had?
- Is the traveling necessary? Would a Skype- meeting have been possible?
- Do you get procedures from Etteplan before your assignment?
- Does the customer give procedures before traveling?
- Do you recognize risks that are related to business travel?
- Have there been accidents, imminent situations or close-calls during business trips?
- How have you recovered after business trips? (e.g. jet lag.)

### 2.2.3 Implementation

Evaluation and developing have two stages: testing procedures with the focus group and implementation of the procedures. The thesis team has given feedback during the thesis work on guidelines and their contents. The guidelines will be discussed with the group before they are presented to the rest of Etteplan. Procedure tests were done for a focus group that was chosen by the master thesis work group.

The testers for the OHSI and TSI should be chosen separately. This way one can get more out of the testers as they only must concentrate on testing one of the guidelines. TSI testers should have a large number of different types of travellers in the test phase to see if employees can use them to create a safe work assignment or trip. It is important to get employees that are going on their first assignment to test the procedures as they have not yet created any routines. This way they will more likely follow the content that is in the travel guide. Experienced travellers may not be as interested in the travel instructions and they may not familiarize themselves with them as they have a clear routine for travelling. On the other hand, experienced travellers can give feedback on whether they think that all the important things have been listed in the guide.

A few of the testers for the OHSI should be employees that have recently started their employment at Etteplan so they would be the first group to be guided and supported by the occupational safety guidelines. Feedback will be gathered from the testers that will hopefully help to understand whether or not the employees of Etteplan are getting help out of them in terms of occupational safety and travel safety and what they think of the usability of the guidelines. Based on the feedback, the guidelines can still be modified before the official implementation.

Before implementing and introducing the new guidelines, they will be presented in an internal seminar of Etteplan and the thesis work group will select the participants that will attend the seminar. The seminar will present the content of both guidelines as their own presentations, after which the participants of the seminar can ask questions about them. In connection with the introduction of the OHSI and TSI a news article will be published on intranet page of Etteplan, which aims to market the guidelines and attract the interest of the employees.



## **3. THEORY**

### **3.1 Previous studies**

There are a few research papers, studies and master theses, that are related to this study. During the last five years, at least three master theses have been made, where the work has revolved around developing travel safety instructions. The newest addition was created in 2017, when Nuora developed travel safety instruction for another engineering office. Ahvenjärvi (2015) developed travel safety instruction for Police College in Finland and Kalervo (2015) developed a work travel safety programme in his thesis. Master thesis works and research that have been done before, are quite similar and have clear viewpoints to what kind of information should be found in the TSI.

In previous studies, the procedures are linked to business assignments that are done abroad. In this master thesis work, it is important, that the instructions can also be used while traveling to Finland and abroad. There are some standards, laws and research, that are linked to OHSI and to what kind of information should be in the OHSI. The previous studies and research, that have been done before this thesis, are referenced in this master thesis work, so that the end goal can be reached.

### **3.2 Legislation**

The European Union framework directive 89/391/ETY sets the minimum requirements for the member countries work environment safety and health as well as safety at work. When the directive came in to effect, companies and member countries were not allowed to lower their current safety requirements, rather the purpose of the directive was to improve and develop working conditions. (Euroopan Yhteisöjen Neuvosto 1989) The member countries have had to incorporate the directive into their own legislation, but country-specific regulations and legislation can be stricter than the minimum requirements set by the directive (Euroopan työterveys- ja turvallisuusvirasto N.d.). The international labour organization ILO creates and monitors workplace conventions. The ILO aims to eliminate forced labour, child labour and workplace discrimination in the member states. (Heinonen et al. N.d; International Labour Organization N.d)

In Finland the Ministry of Social Affairs and Health supervises that EU standards and directives are followed, and actively participates in EU decisions that concern the Ministry of Social Affairs and Health. This involvement ensures that EU legislation and national

legislation are as consistent as possible. EU legislation affects, for example, safety issues in occupational safety, insurance and environmental health. (Sosiaali- ja terveystieteiden ministeriö N.d.) The Occupational Safety and Health Act (738/2002) in Finland states the minimum requirements for work environment and working conditions, with the purpose of preventing work related incidents and accidents that affect physical and mental health.

The Occupational Health Care Act (1383/2001) mandates the responsibility of the employer to arrange health care services and the content of said services. The law regarding employment offences is set in the Criminal Code of Finland (39/1889). The Criminal Code has its own chapter on labour offences, which include, among other things, working-time offenses, occupational safety offenses and matters related to labour discrimination (578/1995, chapter 47)

According to the Occupational Health and Safety Act (OHSA) an employer has general duty of care, which means that the employer must take care of the health and safety of employees and find out and remove any occupational hazards. If the discovered hazards cannot be removed, then assess the risks at the workplace that could threaten the health of employees and carry out the necessary risk controls. (Yrittäjät 2018). Although the employer has general duty of care, there are some situations, where the general duty of care cannot be enforced. Such as unexpected situations, which the employer has not been able to influence or exceptional occurrences, the consequences of which could not have been avoided despite appropriate precautions. (Työturvallisuuslaki 738/2002, 8§). The main purpose of the OHSA is to improve work environment and working conditions, prevent and control accidents and health hazards at work.

In the OHSA (738/2002) responsibilities are defined for both the employer and employees. These include how they should act in the workplace, how to improve the working environment and how to avoid accidents at work and other harms, which could influence the health of employees. The employer must plan, choose, design and carry out working conditions, so that the health or safety of employees is not harmed. In the fifth chapter of OHSA it is mentioned (24§), that it is a duty of employer, that the workstation and working tools are suitable and ergonomics are considered, during the planning of a workstation. The environment of a workstation should be planned in a way, where the environment can be adjusted. Work that consist of computer-related work, should be planned so that it does not cause harm or stress to the health of employee (OHSA, 25§). The employer is obligated to provide personal protective equipment, that the employee is obligated to use when the working environment requires the use of such equipment (Työturvallisuuslaki 738/2002)

There are also duties and responsibilities for the employees, that are mentioned in the OHS Act. The employee is obligated to follow the given instructions of employer and orders and act in the workplace in a manner that causes no harm to health and safety of anyone. According to the Occupational Health and Safety Act 23§, an employee can abstain from work, if the working environment can cause harm to the health and safety of employee. In addition, the employee must give that information to the employer as soon as possible. The employee can return to work, after the harm or hazard is removed from the working environment. (Työturvallisuuslaki 738/2002; Tyosuojelu.fi 1a 2018)

An employee must act in manner that fits the workplace; other employees should not feel disturbed by another behaviour of employee. In addition to the duties of the employee, there are some responsibilities that must be followed in a workplace. An employee is obligated to inform their employer or occupational health and safety representative of any safety issues in the working environment, equipment, working tools, protective equipment or machines that they notice. If possible, the employee can fix the problem, but the problem should still be reported to the employer. (Työturvallisuuslaki 738/2002 18§; 19§; 23§; Tyosuojelu.fi 1a 2018; Teknologian tutkimuskeskus VTT 2012)

The employer is obligated to provide health care to the employees. Occupational health care act (1383/2001) is applied at work, where the employer is obligated to follow OHS Act (738/2002). Workplace health care is proactive, and the purpose of it, is to prevent health hazards and harms at the workplace. According to the occupational health care act, workplace health care should have a written procedure, where the general goals of workplace health care and the organization needs are mentioned. The procedure of workplace health care can be a part of the OHS procedure of organization.

In the Occupational Health Care Act in 12§ it is mentioned what a good health care plan should include. The organization that the health care service is bought from, should clarify and estimate the health and safety at work and examine and assess situations, that could cause harm to the health of employees. The bidder of the occupational health service should have procedures on how to improve safety and health at a workplace and should give that information to the company. In 13§ of the occupational health care act it is specified that the employee has to undergo a health examination when the employer so demands.

Caring for the health of employees is the duty of employer, and if the employer does not care about the health of employees, there can be serious problems and serious consequences. Neglect of the OHS can cause an employer or their representative

criminal liability (Yrittäjät 2018). Chapter 47 (578/1995) of the criminal code of Finland (39/1889) defines work related crimes.

According to the criminal code of Finland an employer or a representative of the employer that has purposefully or by negligence violated the occupational safety regulations can be convicted of a crime against occupational safety and health. Depending on the severity of the crime the employer or the representative can be sentenced to fines or imprisonment. (Rikoslaki 578/1995) The essential elements of health and safety violations can be fulfilled easily when examining the risks of the target country of a work assignment and guiding the employee for the upcoming assignment. The employer should get acquainted by the law in order to avoid the consequences. (Rauramo 2017 pp. 9)

In the Workers' Compensation Act (459/2015) it is stated that the employer is required to take an insurance for its employees in case of accidents and work-related illnesses. If the employer has paid an employee a maximum of 1 200 euro during a calendar year, the employer is not required to insure the employee. The workers compensation act is also applicable during work assignments that take place abroad. (Työtapaturma- ja ammattitautilaki 3§;14§)

The Finnish Government has adopted a regulation based on the Occupational Safety Act, which defines safety and health requirements for workplaces. In the regulation the government has defined workplace requirements for social facilities, fire safety and rescue. (Valtioneuvoston asetus työpaikkojen turvallisuus- ja terveystaamuksista 277/2003)

### **3.3 Safety Management**

Safety management is a part of normal organization leadership; it is daily planning, developing and controlling the safety of people, operation modes and methods. Safety management is a part of continuously developing action of organization. It has a positive effect on personnel commitment, well-being at work and it can prevent work-related accidents and illnesses. The challenge of safety management is how people feel and see safety in their everyday work. In a large organization there might be several different experiences of safety, because each employee can have different thoughts on safety and what it means for them. (Aluehallintovirasto 2010)

Good safety management includes the creation of a safety policy, risk evaluation, measurement, observation and documentation, definition of action commitment and power as well as ensuring the know-how and communication. Safety management needs

a feedback plan that ensures that the safety management works, and practices can be improved based on the feedback. (Aluehallintovirasto 2010)

Work related accidents and illnesses cause costs to society. It has been estimated that work related illnesses and accidents cost 2 680 billion euros globally and 476 billion euros in the EU area. The amounts are estimates as collecting and retrieving data is not reliable everywhere and recording incidents are not always transparent. (Elsler et al. 2017)

Globalization is increasing competition in the industry business. It is not only enough that the service or the product is good, because buyers and the clients are paying more attention to how safety is handled in companies. The client company can set requirements for a safety level in the company and safety at work. When companies invest in the safety of the employees, it can create a noticeable competitive advantage. (Puuteollisuus-sivusto N.d.; Haatainen et al. 2009; Heljaste et al. 2008) Safety can be a concept, where people feel safe, and hazards and harms are eliminated from the environment. A person's view of safety might differ from others depending on the point of view.

### **3.3.1 Aim of safety management**

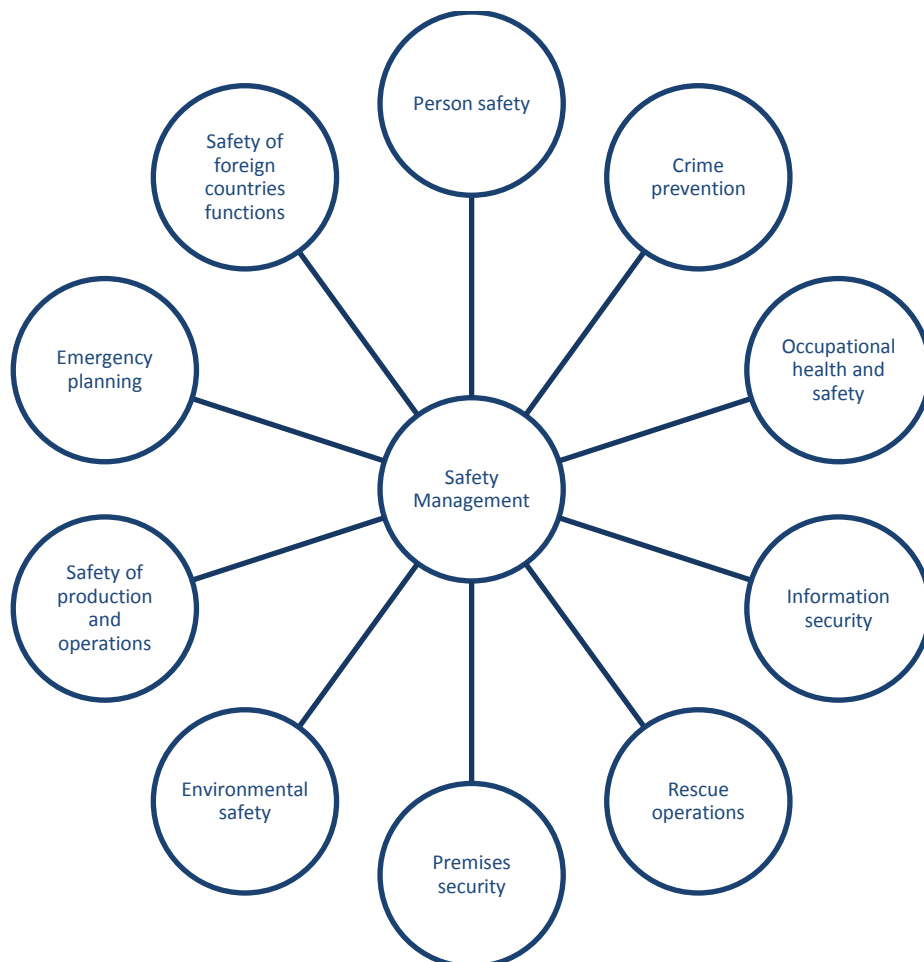
Safety management is usually based on Occupational Health and Safety Act (738/2002). The starting point of developing occupational health and safety is evaluating hazards as well as harms and the working environment as well as defining safety goals, which must fulfil national laws. (Työturvallisuusjohtaminen N.d; Haatainen et al. 2009; Susi, M. N.d.)

An organization consists of a hierarchy structure, where the CEO or business owners are in top position of the hierarchy (Kelchner, L, 2018). The base of safety management is safety policy, which is created by the top management or executive board (later EB). In other words, the CEO or business owners are also part of the safety policy and inspire the personnel to get invested into it. (Puuteollisuus- sivusto N.d.) When the personnel are engaged with safety policy, it is possible to develop safety culture in the organization. The basis of a safety policy is created with evaluating current situations at the workplace, that includes evaluating risks and actions. Tools are created that can help with risk evaluation. (Aluehallintovirasto 2010)

The confederation of Finnish industries and the Technical research centre of Finland divide safety management into ten different sectors (Figure 3), through which it is easier to perceive and examine the safety of a company and perform pre-emptive actions. The meaning of the different sectors can vary in organisations and each sector can be more

important to a different organisation. The most important thing is to perceive which sectors are essential to the operation of your own organisation and use them to develop the safety of the organisation. (Lanne 2016; Susi N.d.)

For example, in the OHS sector the working environment is developed in a way that it ensures the employees can work in healthy and safe environment as well as allowing improvement to their ability to work. In the sector of person safety, the accidental and deliberate risks of employees that could affect the organisation are minimized and the protection of the employees from crimes and accidents is strived for. The employer is responsible for the employee during assignments that take place abroad. The safety of foreign countries functions sector strives to ensure the safety of an employee abroad and to minimize the drawbacks and disadvantages that come with traveling. (Lanne 2016; Heljaste et al. 2008)



**Figure 3.** Sectors of safety management (Adapted from Lanne 2016; Susi N.d.)

The ISO 45001:2018 standard defines work-related risks and hazards (Figure 4). ISO 45001 (3.19) defines hazards as factors or events that may cause injury or damage to health. ISO 45001 also defines an occupational health and safety risk (3.21), which is a combination of the probability of a work-related hazardous event or the likelihood of exposure and the severity of the injury or health impairment that may result from the event or exposure. (SFS- ISO 45001:2018; Hammar 2016) A risk is defined as a combination of the severity and probability of the damage caused by the incident. (SFS- ISO 45001:2018; Sosiaali- ja terveystieteiden ministeriö 2015, pp. 26)

**Hazard** a source with potential to cause injury and ill health

**OH&S risk** combination of the likelihood of occurrence of work-related hazardous events(s) or exposure(s) and the severity of injury and ill health that can be caused by the event(s) or exposure(s)

*Figure 4. Definitions for hazards and OH&S risks according to ISO45001*

An organization should know the hazards and harms that are related to their work, and how those harms and hazards can be handled. According to the Occupational Health and Safety Act (738/2002, 10 §) the employer is obligated to clarify and identify hazards in the workplace as well as their significance and causality. If those hazards cannot be eliminated from the workplace, their effect on the health of the employees must be evaluated. With risk evaluation, it is possible to find out working conditions for development and how the working environment affects the employees (Aluehallintovirasto 2010; Sosiaali- ja terveystieteiden ministeriö 2015, pp. 26).

Risk management is a part of good safety management. Risk management is systematic work that strives to ensure the continuity of the work and wellbeing of the personnel. Risk management includes all work that is done in an organization that aims to reduce and remove risks. (Sosiaali- ja terveystieteiden ministeriö 2015, pp.6; Valtiokonttori 2013)

Hazards can be caused by the working environment, personnel, or external factors such as political decisions and economic issues. A part of risk management is to specify, what kind of hazards could be caused by the personnel at work, and how to recognize those hazards. According to the Finnish Risk Management Society, risk management has three phases that are risk evaluation, estimating the extent of risks and how to avoid risks. (Valtiokonttori 2013) An employer should always have current and actual information on the harms and hazards of the workplace and an action plan in order to avoid them.

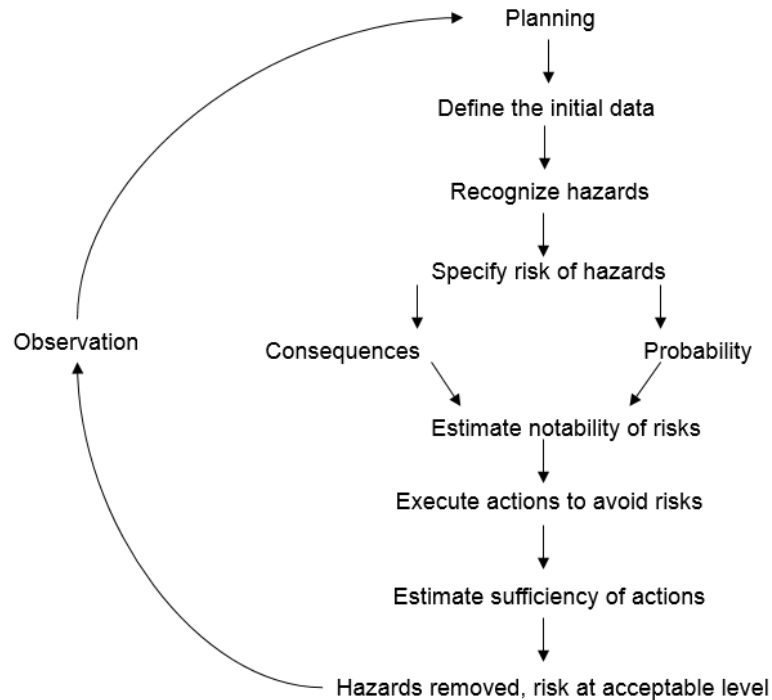
Cooperation with occupational health protection services can be utilized in the risk evaluation process. (Verohallinto N.d.)

Risk evaluation is a systematic process, that advances phase by phase and it aims to effectively improve work safety. Risk evaluation consists of identifying hazards, determining the magnitudes of the risks posed by them and assessing the significance of the risks (Sosiaali- ja terveystieteiden ministeriö 2015, pp. 6-7) Information on risk assessment should be an open activity in the company, describing the timetable, progress of the risk assessment and finally the results obtained as well as the measures to be taken by the personnel. (Sosiaali- ja terveystieteiden ministeriö 2015, pp.22). As shown in Figure 5, risk evaluation starts with planning and defining the initial data for risk evaluation (Puuteollisuus- sivusto N.d.; Työturvallisuuskeskus 1c N.d.). The next step is to recognize the hazards in the workplace, and the type of situations that can cause harm to the personnel. After recognizing the hazards in the workplace, the risk of the hazards must be specified. The probability and possible consequence of each discovered hazard must be specified.

After calculating the risk of the hazard, the notability of the risks can be estimated how the risk would affect the action of organization and what actions can the organization do in order to minimize the notability of the risks. The next step is to estimate the sufficiency of the action; is everything done to minimize risks and if the risk is at an acceptable level.

Risk evaluation aims to find the most effective ways to improve occupational safety by taking effective measures to do so. Even if a company has found the appropriate measures to improve safety at the of the risk evaluation process, the employer must continue to monitor and observe the working environment, work practices and the safety of the workplace. (Sosiaali- ja terveystieteiden ministeriö 2015, pp.32&35)





**Figure 5.** Risk evaluation (Puuteollisuus-sivusto N.d; Työturvallisuuskeskus 1c N.d.)

A risk is defined as a combination of the severity and probability of the damage caused by the incident. Consequences are defined by the severity of the hazard and the causes that it would have on health and safety. Probability is affected by the frequency, duration and preventability of the hazard. The probability and consequences of risks can be evaluated by a risk evaluation matrix (Table 1), where the severity of the risks is divided into slightly harmful, harmful and extremely harmful. The probabilities of the risks are divided into likely, unlikely and highly unlikely. (Sosiaali- ja terveysministeriö 2015, pp. 26-28)

The size of the risk is evaluated by assessing how likely will the risk occur after which the severity of the risk is assessed. The risk can be an insignificant risk, but in the worst-case scenario the risk can be an extreme risk (Table 1). When a risk is insignificant, it is not necessary for an organisation to take measures to counter it. If a risk is classified as extreme, it is necessary to immediately remove the risk and cease all operations that revolve around the risk until it is removed. Risk evaluation grants the ability to pinpoint on key points that weaken the organisations safety at work. The focus should first be used on removing the biggest risks, after which the focus can be used to remove the smaller risks from the organisation. (Sosiaali- terveysministeriö 2015, pp. 28-30)

**Table 1.** Risk assessment matrix (Sosiaali- ja terveystieteiden ministeriö 2015, pp.30)

	Slightly harmful	Harmful	Extremely harmful
Likely	Medium risk	High risk	Extreme risk
Unlikely	Low risk	Medium risk	High risk
Highly unlikely	Insignificant risk	Low risk	Medium risk

The urgency of the measures can also be described verbally in accordance with table 2 below:

**Table 2.** Risk action matrix (Sosiaali- ja terveystieteiden ministeriö 2015, pp.30; Shipowners club 2017)

Consequences	Responses to the urgency of the risks
Insignificant risk	<ul style="list-style-type: none"> <li>No action required</li> </ul>
Low risk	<ul style="list-style-type: none"> <li>No additional controls are required.</li> <li>Monitoring is required to ensure control is maintained.</li> </ul>
Medium risk	<ul style="list-style-type: none"> <li>Efforts are required to reduce risk.</li> <li>Controls are to be implemented within a specified time.</li> </ul>
High risk	<ul style="list-style-type: none"> <li>Considerable resources may be required.</li> <li>If work is in progress, urgent action to be taken</li> <li>New work not to start until risk reduced.</li> </ul>
Extreme risk	<ul style="list-style-type: none"> <li>Action required</li> <li>Work shall not be started or continued until the risk has been reduced</li> <li>If reduction is not possible, the activity shall be prohibited</li> </ul>

Hazards are not only caused by external factors; risk management should also focus on personnel risks. The lack of know-how in personnel can cause serious hazards to the success of the organization. Personnel risk is defined as the risk to a person or as a risk to the organization caused by a person. Recognizing personnel risks is the first step. (Suomen Riskienhallintayhdistys PK-RH-Riskienhallinta N.d.; Lähtäpiola N.d.; Halonen 2011, pp.8). Personnel risks can for example be caused by:

- Work environment
- Health and wellbeing
- Actions of the work community

- Special risks of entrepreneurship
- Know-how
- Criminal damage and harm
- Employment crises
- Traffic
- Work-related violence

Risks in the working environment include heavy physical labour, noise or chemicals. Stress, burnouts and exhaustion as well as musculoskeletal disorders are a part of health and wellbeing risks. There are always risks involved in the functioning of the working community, which invariably are the result of interaction failures. There are always risks associated with entrepreneurship, as it is usually entrepreneurs who invest time and money in the company. Companies should invest time and resources to develop the skills of the employees, so that talented employees are not lost. (Halonen 2011, pp.9-19)

Criminal damages and harm caused by the personnel are a risk to the functioning of a company, for example workplace bullying is considered to be harmful because it disrupts and lowers the ability to work of the bullied individual. Lack of orientation or unsuccessful recruitment, which causes unnecessary costs for the company, can be considered as employment crises. Traffic-related personnel risks are daily, as workers travel between work and home nearly daily or are on longer work assignments. Preventing work-related violence is important because, at worst, situations of violence can cause physical injury or loss of life. (Halonen 2011, pp.9-19)

For personnel risk evaluation, the same tools can be used that were used for risk management in Figure 5. After identifying the risks, the risks can be estimated and evaluated. What consequences can the hazards cause and what is the probability for the risk. After that the hazards can be handled. Even though personnel risks are recognized and evaluated in the organization, there can be situations where everything does not go according to the plan. Accidents can happen that are not prepared for, for example, some employees can act against the organizations interest and that can cause harm to the organization. (Suomen Riskienhallintayhdistys PK-RH-Riskienhallinta N.d)

### **3.3.2 Safety at work**

The employer is responsible for workplace health and safety. Everything starts with familiarization, which ensures that employees know the harms and hazards of the work

environment, rules at work as well as working habits. Familiarization gives new employees the ability to know their duties at work and it also gives them information of the work environment. A new orientation must be done if work tasks change. (Haatainen et al. 2009, pp. 28-31; Wörn N.d)

Finnish Institute of Occupational Health Safety has defined that a safe work environment is one of the key elements in productivity. Accidents and illness at work can cause absences at work, and that affects the productivity of an organization. (Työturvallisuusjohtaminen N.d.) A good work environment, safe working processes and job satisfaction are requirements for good quality of work. Safety at work is a continuously developing process, where issues that can risk the safety and health of a workplace are developed. (Puuteollisuus-sivusto N.d.; Aluehallintovirasto 2010)

In the industry business, several engineering offices do co-operation, and the responsibilities and duties are widespread. Here it can be hard to find out, who is responsible for each project phase (Haatainen et al. 2009). Co-operation with customers, interest groups and co-workers are important to engineering offices, so taking them into the risk recognizing of company, evaluating and processing process could be useful (Susi N.d.; Teknologian tutkimuskeskus VTT 2012).

When an OHS procedure is planned, the goal should be clear, and it should give a clear message for the employees. Employees want safety from their workplace, but what are the key things that make a workplace safe. It can mean different things for each individual, and that is why the feedback of workplace safety from employees helps to create better OHS procedures for the organization. Requirements for workplace safety are more than written procedures, it is about creating a safety culture in the organization. Motivating employees to follow the safety policy of an organization is important, and the voice of employees should not go unheard, because listening to the opinions of the employees regarding safety issues, can help the organization to create a safer workplace. (Copeland, N.d)

A workplace safety instruction contains information on dangerous situations and how to act and survive in the case that they happen, that is why a safety instruction should be found in each workplace. The safety procedures can be for common use or be specified to a specific duty or job in the workplace. The OHS Act (738/2002) obligates that in a common workplace, the employer that has authority over the workplace must make sure that all employees have gotten safety instructions regarding the common workplace. (Haatainen et al. 2009, pp.43-44; Työturvallisuuslaki 738/2002)

A shared workplace can employ several employees from several organizations. In a workplace such as this, authority belongs to the organisation that orders the services from the other organisations, and it usually owns the facilities as well. The organisation with authority is obligated to inform others of the harms and hazards in the workplace and how to act in emergency situations. (Työturvallisuuslaki 738/2002, phase 6)

Companies are extending their operations into the global market. Finnish companies are also going into international markets even more, which means that the employees can be placed to work in new working environments, where new hazards can occur that can harm the health and safety of employee. When companies are planning to extend their operations abroad, it is important to get familiarized with the safety and health of the destination country and to identify the issues that could cause harm to the health and safety of employee. (Rauramo 2017)

Globalization has increased the mobility of employees, due to the increased number of work-related travels locally and abroad. The employer is responsible for the safety of employee, occupational health and security during travels. (Gold 2013) Every company and its office must have a procedure for cases of the emergency, which are valid in office work and abroad. (Rauramo 2017)

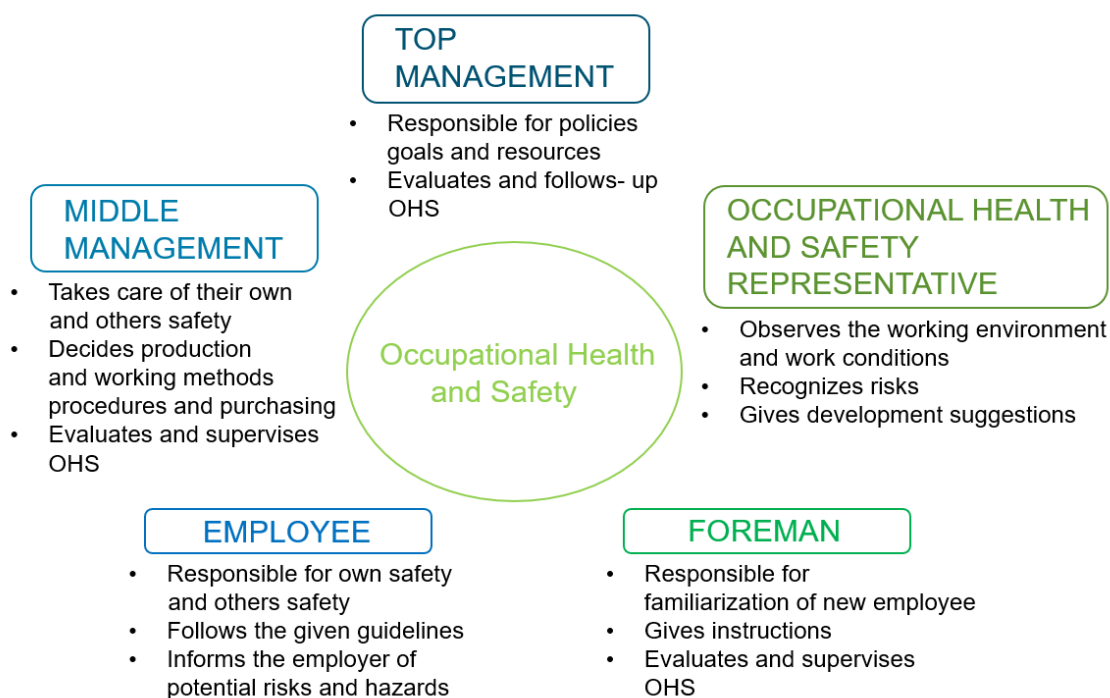
### **3.3.3 Occupational Health and Safety**

There are several reasons why a company is successful in its market and area of expertise, and one of the reasons for succeeding, is how employees are led in the company. Taking care of employees and their health is important in a workplace; it makes employees work efficiently and creates a better workplace atmosphere. When employees feel better at work, the amount of sickness leaves lowers. (Suomen Riskienhallintayhdistys PK-RH-Riskienhallinta N.d; SFS-ISO 45001:2018) Safety comes from the commitment of management to safety. If management does not fully support the safety aspects of the company, it is hard to implement those aspects into the personnel. Having a written safety policy is not enough, it should be embedded in to the working culture of the personnel. (Baird et al. 2014)

According to the European Agency for Safety and Health at Work, when an organization is paying attention to the occupational health and safety (later OHS) it can improve the effectiveness of business while also protecting its own employees (Euroopan työterveys- ja turvallisuusvirasto 2012). The idea of OHS is to improve the safety and health of employees at work and to avoid situations that could cause harm to the health of employees or influencing their ability to work. (workable.com N.d.) An employer must take into account issues that are related to work, work environment and the ability of

employees to work. In OHS (738/2002) it is specified that the OHS is a part of operations and safety policy of company. Therefore, organisations should have an occupational safety and health action plan that defines the organisations goals to achieve a safe and healthy work environment.

According to the Centre for Occupational Safety, the safety and health at work belongs to everyone in a workplace. Of course, every employee has their own obligations in regard to the safety and health at work (Figure 6). (Työturvallisuuskeskus 1a N.d.) It is up to the top management to develop and monitor safety and health at work on the organisation. Usually, management delegates the implementation of the processes to the middle management supervisors, who create instructions and follow and supervise the working conditions. An employee follows the instructions that they receive from the supervisor through the familiarisation process, while also reporting the harms and hazards of the workplace to the supervisor. (Työturvallisuuskeskus 1a N.d.; Työturvallisuuskeskus 1c N.d)



**Figure 6. Responsibilities at workplace (Adapted from Työturvallisuuskeskus 1a N.d.)**

Legislation demands that there is a head of occupational health and safety, as well as a health and safety representative in a workplace (Työsuojelu.fi 1b 2018;

Työturvallisuuslaki 738/2002). Health and safety representatives need to be chosen, if there are more than ten employees in the same workplace. Duties of health and safety representatives include the familiarization of workplace safety and health issues that are related to the working environment and the working community. (Työturvallisuuskeskus 1b N.d.; Työturvallisuuslaki 738/2002)

Accidents that occur in offices usually consist of falls and slips, which can be prevented by clean and dry floor surfaces. (Työturvallisuuskeskus 1d N.d.). As majority of the work is done in front of the computer at a desk or a workstation the working environment has a role in how the employee enjoys their time at work. Computer work and bad ergonomics, as well as other work environment issues can cause harm and difficulty to the work of employee. Usually, accidents happen during work assignments, in unfamiliar environments. According to studies (European Agency for Safety and Health at work 1a N.d.) poor workplace safety and health costs more money for the company than investing in good occupational safety and health. It is calculated that one euro that is invested in to OSH returns 2,2 euro. (European Agency for Safety and Health at work 1a N.d.)

Risk management is a part of OHS, and every work has its own harms and hazards. In office work general problems are ergonomic harms and work-related stress (Työsuojeluhallinto 2014). Legislation of European Union affects organizations and member states occupational health and safety strategies. The European Commission has done evaluations about the functionality of regulation, and there were some concerns that needed solutions. (Euroopan komissio 2018) Work-related stress, musculoskeletal disorders and ageing of employees are risks that organizations need help with. Work-related stress has become more common and it causes occupational health and safety problems. Work-related stress affects work productivity, because it causes absences at work, stress weakens work performance, exposure to accidents and stress has an effect on personnel turnover. (Euroopan komissio 2018). In some EU countries, work-related stress is not part of OHS, and other countries, it is a part of the OHS.

Another risk is related to the variety of personnel. The population of employees that are over 60 years old is increasing in the EU area by two million per year. It is estimated that in the year 2030 a quarter of employees are 60-years-old or older. The third risk that has become more in common, is ergonomic risks that are a very serious problem in EU area. Ergonomic risks have become the biggest OHS problem in the EU area. Ergonomic risks are complicated and multidimensional. When an employee is exposed to ergonomic risks in the workplace repeatedly, it can cause musculoskeletal disorders or worsen existing disorders. In 2013 musculoskeletal disorders were the most common reason for absence

at work and disability to work. These create several costs for organizations, people and the society. (Euroopan komissio 2018)

Absences due to sickness have increased in Finland and usually the reason for sickness is work-related stress, depression and insomnia. According to Laine (2019), experts believe that mental health disorders will exceed musculoskeletal disorders in sickness statistics in a few years. Mental health disorders are not dependant on the status of the person and those absences are almost as common for managers as they are for employees. The reasons for the growth of mental health disorders are changes in work, because previous duties were understood more clearly. Nowadays it is assumed that employees are self-driven and have more know-how of work. (Laine 2019)

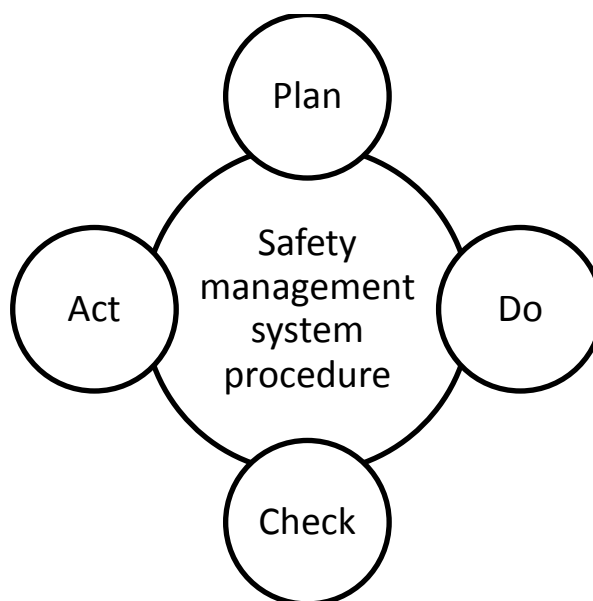
In office work, musculoskeletal disorders can be caused by standing or sitting in the same position for long periods of time, static and awkward positions, poor lighting and cold working environment (European Agency for Safety and Health at Work 1b N.d.). Also, constant display screen work can strain the employee and the vision of employee if the ergonomics in the workplace are carried out badly. There is a challenge for the employee, employer and the OHS staff, because a lot of information regarding ergonomics is required and it also requires time and monitoring. (Työsuojeluhallinto 2014)

Occupational health care in a workplace is based on a workplace survey that explores the working conditions of the workplace. The survey can also be used to assess the mental and physical load caused on employees. This information can be used by occupational health care to give recommendations on how to improve conditions in the workplace. The employer is responsible that the workplace survey is up to date. (Työsuojelu.fi 2017)

Occupational safety and health at work can be controlled by an occupational health and safety management system, which helps the organization to find OHS risks in the workplace and minimize them at work. (SFS-ISO 45001:2018) A good guideline for an OSH management system (OSH-MS) is the guidelines of International Labour Organization (ILO) for OHS- MS. ILO has developed the OSH-MS according to the international principles of safety guidelines. Guidelines can be developed according to national laws and regulations and the need of the organization. (ILO 2009) The OHS management system does not work in an organization, if everyone is not engaged in the system and that means that the leadership should also be engaged in the system (SFS-ISO 45001:2018).



For the OHS management system a PDCA-model can be used, PDCA-derives from the words plan, do, check and act (Figure 5) and it is based on ILO guidelines for OHS management systems (SFS- ISO 45001:2018). The PCDA-model is an iterative process, that organizations can use for the continuous development of OHS. OSH-MS should be systematic and determined on continuous improvement in the organisation. (Mäkelä 2019).



**Figure 7.** OHS Management system (Adapted from SFS- ISO 45001:2018)

In the planning phase, the occupational and safety risks are assessed and the clearest targets for improvement in the organisation are defined. Organisations can be of different sizes, so viewpoints from every aspect on the organisation should be gained in the planning phase. When the hazards and harms in the organisation are defined, measures to counteract and control the risks can be made. In the implementation phase, the measures created in the planning phase are implemented in use of the organisation after which they are followed and measured. Their potency and function are assessed to see if the results match the wanted safety policies. (SFS-ISO 45001:2018; Mäkelä 2019)

The tools used for assessing and measuring should be ones that fit the description, such as, it should be known what is measured and if these tools fulfil the requirements. To obtain the wanted functions, measures must be done that improve the level of occupational health and safety in the organisation. Once the new measures have been made in to a part of the daily routine of organization, the process starts again when it is

possible to check if the measures have improved the well-being at work. (SFS-ISO 45001:2018; Mäkelä 2019)

### **3.4 Work-related travels**

In this work, business trips and assignments mean travels that are from work to work. It does not include travel from home to work and otherwise. De Greef et al. (2015) divides international business trips and assignment in to four types: frequent travel, international commuter, short-term expatriate assignment and long-term expatriate assignment. The international commuter is an employee that travels between the domestic country and another specific country weekly, because of work. The frequent traveller has international business trips and the end destination can be different each time.

This work uses definitions of Etteplan for short- and long-term assignments. Definitions come from a collective agreement, that is used for the employees at Etteplan. Business trips and assignments can be split in to short-term and long-term. *Short-term business travel or assignment* means that the traveller is on an assignment for at least two weeks, but not longer than two months. *Long-term business travel and assignment* means that the traveller is on an assignment for at least two months. (Teknologiateollisuus 2017; Ammattiliitto Pro ry & Teknologiateollisuus 2015)

In the year 2016, 118 590 accidents at work happened in Finland of which 21 475 were counted as accidents on the way to and from work, which means they happened while traveling between home and work. A third of the accidents that happened in the workplace were related in the movement and a fifth were related to either falling or slipping. A workplace related accident was usually followed by four days sick leave, mostly the accidents are not that severe. More severe accidents also happen yearly, but just more rarely. (Tapaturmavakuutuskeskus 2018)

#### **3.4.1 Business trips and assignments**

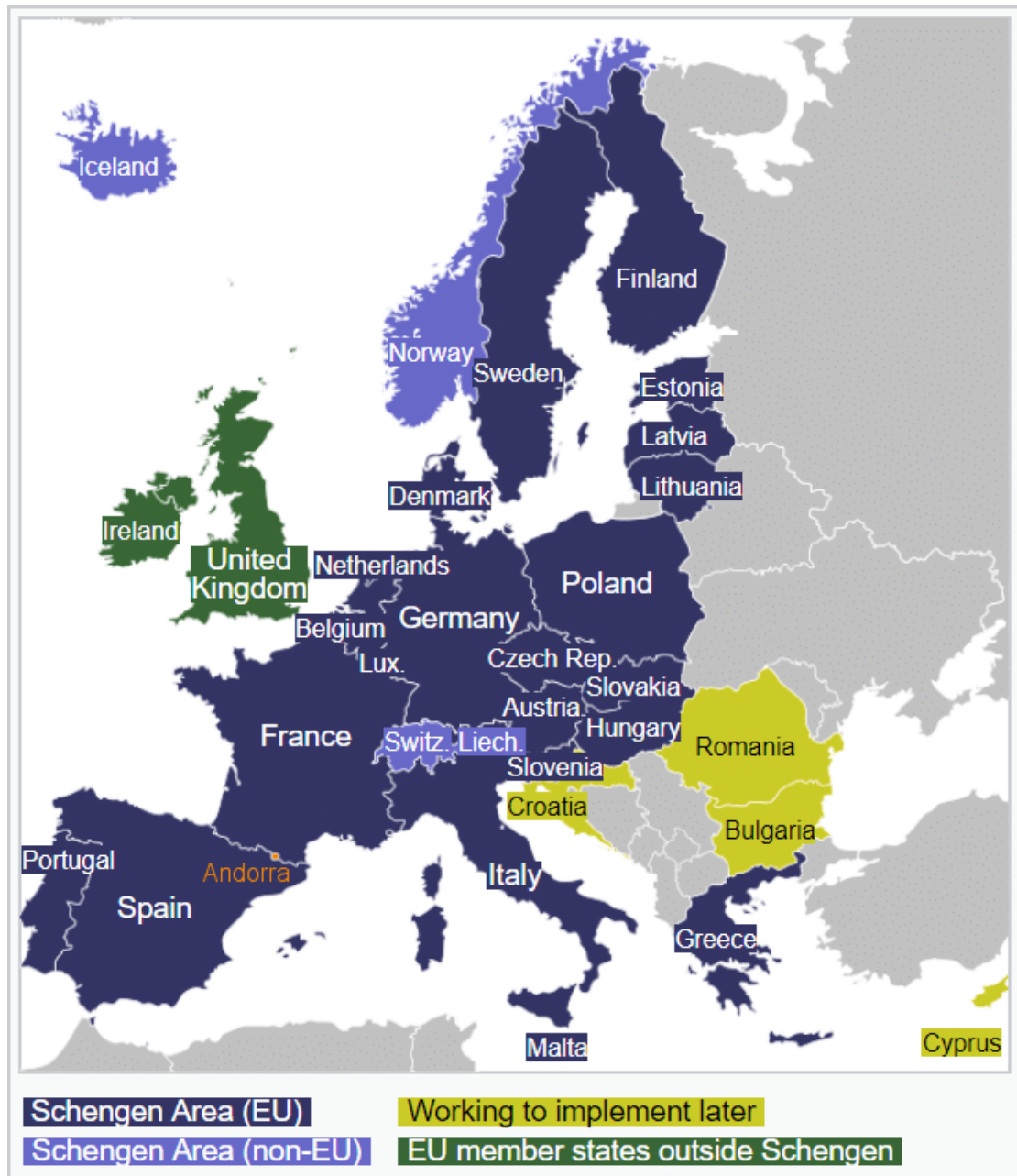
There are different business traveller types in the modern world. In the past business travel was not as common as it is these days and it was mostly focused on business professionals. Nowadays things are different, as there can be a senior executive who is closing an important deal, a technician who is building a service system or a manual labour worker who is at the factory. (Gold, 2013)

Welch et al. (2007) separate reasons for business trips and assignments abroad to internal and external reasons. Internal reasons for international business travel are that organization have geographically spread worldwide; the organizational units are

increased more in global markets and there is a need for mobilization in organizations. As the external reasons Welch et al. (2007) consider bargaining new deals, selling services and products and visiting potential customers. According to International SOS Foundation (International SOS Foundation N.d.) in 2013 the most common reason for business travel was meeting potential and existing customers and participating in conferences and networking events.

Globalization has increased traveling, business trips and assignments in organizations. Travels are done to other offices within the organization, to office of sub-contractor or to sites abroad or domestic country. Business trips to abroad have increased and it is estimated that those trips will keep increasing in the future. (BGRS N.d.; Rauramo 2017; Springer 2014) It is estimated that business travel will increase during the next years, even though technology has significantly evolved from what it was ten years ago (Local Government Employers 2009; International SOS Foundation 2018; Haatainen et al. 2009; Rauramo 2017).

Business travel in Europe is easy, because EU citizens have the right to travel and work without any formal papers in the Schengen Area (Figure 8). While traveling to the Schengen Area, you should always keep travel documents such as a passport or an identity card with you and present it to authorities if they ask for it from you. There are some countries that are not part of the EU but belong to the Schengen Area (Figure 8.). There are also EU countries that are not a part of the Schengen Area yet, and that can make traveling more complicated (Figure 8.). If a traveller spends more than three months in a country that belongs to the Schengen Area, they must inform their residence at a local police station. (European Commission 2013; Ulkoministeriö 1b N.d.) While traveling outside of Europe an employee might require a visa to be able to work in the destination country.



**Figure 8.** Schengen Agreement map (Lucas, P. N.d)

The Ministry of Foreign Affairs of Finland recommends choosing a safe target destination country of the foreign countries, but it is not always possible for business travellers. The destination country of business trips and assignments cannot be chosen, and sometimes the destination is not the safest one. (Hara et al. 2016; Ulkoministeriö N.d.) Organizations should have a good understanding about safety regarding business trips and assignments. Traveling increases risks at work, and that is why organizations need effective and functional procedures for business trips and assignments. (Hara et al. 2016, Rauramo 2017)

Business trips and assignments can improve a career of employee. The employee can get well-rounded working experience and knowledge, create new contacts and get new perspectives. According to Hahn and Molinsky (2016) as well as Bickerton and Wheatley (2016) employees are often more creative after business trips and assignments, because they have spent time in different working environments, where they have come up with fresh ideas. Business trips and assignments are important for a career of employee, but also for a success of organization. (Hommelhoff et al. 2016)

Traveling creates new challenges for companies, but there are also challenges for the traveller. For example, how business assignments and travel in general travel affects a personal life of employee. The effect is increased if there are several trips during the year (De Greef et al. 2015). Even though some can view going on business trips and assignments as an exotic lifestyle, frequent assignments can have challenges and negative effects on work-life balance, working performance, well-being among employees and their family. (Hommelhoff et al. 2016; Welch et al. 2015) Continuous traveling affects personal life, because the traveller is away from home. Jet lag as well as work duties and backlog at the home office await the traveller after a business trip. (Welch et al. 2015)

It is important to keep an employee satisfied and safe during business trips and assignments. According to the International SOS Foundation, international business travellers have more mental health issues, than non-travellers. From mental health issues, depression is the most common followed by stress and anxiety. Many things can have an effect on the mental health issues that the worker faces during or after business travel. A healthy lifestyle, exercise and sleep decrease stress and other mental health issues. Also, a supportive family, friends and colleagues, keep a traveller healthy making the international business traveller more engaged in their work. (International SOS Foundation N.d.)

De Greef et al. (2015) have made similar observations that people who travel in their work can face more psychological disorders than the ones that do not travel. They made the inquiries of the possible reasons as why this was, but no specific reason was found in their research, but they made a few assumptions. For example, an employee has to change their sleep schedule while on a work assignment which can create problems, working with a foreign language can be taxing as well as working in a foreign culture or that long and intensive work days do not leave enough time for rest for the employee (De Greef et al. 2015, pp.11)

A company that has many employees who go on business trips and assignments should design a procedure for travel safety and ensure that the personnel is educated for travel. The procedure of duty of care during business travel is not compulsory according to the Finnish legislation, but it is recommended. Organisations try to secure a safety of employee during travel and in the destination country with the procedures. The procedures could include guidelines for insurance, health care, local habits and similar procedures. (Haatainen et al. 2009; Hara et al. 2016; Rauramo 2017)

With traveling safety procedures, the organization can decrease the risks of personnel out of office. If there are cases of emergencies, where the actions of company come under investigation it would be helpful to have a traveling duty of care where you can see the actions of the company. The procedure should have instructions for short-term and long-term business trips and assignments. (Haatainen et al. 2009; Hara et al. 2016; Rauramo 2017) The State Treasury obligates that the travel safety instruction includes guidelines in personnel and data security, responsibilities of the employer and employee, insurances and travel plan.

### **3.4.2 Hazards at business assignments**

A starting point for the business trips and assignments should be that working in the country of destination is as safe as it is in the home office (Rauramo 2017). Work always consist of hazards and traveling increases the hazards of employees at work, because they are working in unfamiliar and new environment, where communication problems caused by language or culture can differ from customary working habits. (De Greef et al. 2015)

Risk management is a part of traveling safety. Planning the business trips and assignments, a risk evaluation of the destination country should be conducted. With risk evaluation, the safety level of the destination country as well as its harms as well as hazards can be identified which makes traveling safer for the employee. (Antti-Poika 2016) The Ministry of Foreign Affairs of Finland has travel notices and good-to-know information gathered in their website where it is recommended to do a travel announcement through the Ministry, when the work assignment takes place abroad. (Ulkoministeriö 1a N.d.)

Before an organization sends employees on business travels and assignments, a travel risk assessment should be done. The safety of employee during travel is part of the organization safety policy and OHS. The most important thing in travel safety is anticipation, turning unexpected situations to preparedness. It is a duty of organization to keep the traveller healthy, productive and safe during traveling, because it is good for

business competitiveness. In many countries, the organization is legally responsible for the health and safety at work-related travels of the employee. (Gold 2013)

Avoiding hazards and harms during the business trips and assignments are not easy, but good preparedness helps the organisation to get to a level of safety that the organization can be satisfied with. The health of employee is an important factor during traveling, and that is why risk evaluation is important. With risk evaluation, hazards that can harm a health and safety of traveller can be identified. The employee must understand the hazards that they can face during business assignments. After identifying the risks, the risks can be divided by either the likelihood or seriousness of the risk and the help of the occupational health care of organization, preparations for the risks can be made and their importance considered. Some hazards during business trips can be quite common and they can be avoided by some medicines, there might be some fatal risks that a traveller can face during travel and preparing for those risks means more work and understanding. (Behrens 2012)

Before traveling the employer and the employee must conclude on what to do in situations that can cause absence from work. For example, does the employee report sickness to the original employer or to the work assignment host employer or both. Writing down the terms can make things easier, because then you have an agreement that includes the most important things. (Springer 2014) The awareness of employer of the safety of employee during business travel is important, and there should be procedures in place that enable safe traveling. The traveller can face different safety issues during travel and safety of the employee has become a major concern. Within a few years' terrorist attacks have risen all over the world, the traveller can be faced with natural disasters, diseases or other accidents and dangerous situations. (Mergler 2017)

The employer must know the safety level of the destination country and evaluate what the harms as well as hazards that the employee can face during the business trip are. If the traveller has a family, it must be considered in the risk evaluation. (Antti-Poika 2016) When traveling, it is important to prepare for the hazards and harms that an employee can face during business trips. Claus (2011) divides hazards that a traveller can face during assignments and trips abroad in to seven categories (Table 2).

**Table 3.** Hazards during business trips and assignments (Adapted from Claus 2011)

Political unrest	Environmental factors	Natural disaster	Illness, disease and lack of medical care	Terrorism, violence and crime	Accidents	Travel-related incidents
Civil unrest	Language and cultural estrangement	Ash cloud	Pandemics	Piracy	Hotel fires	Pickpockets
War	Lack of air quality	Earthquake	Illness while on assignment	Terrorism	Road accidents	Lost passport
Insurgency	Rural isolation	Flood	Chronic disease of employee	Kidnapping	Workplace accidents	Lost luggage
Political upheaval	Remoteness of work location	Hurricane, typhoon or tsunami	Infectious disease	Hijacking	Airline catastrophes	Travel delays
			Travel- related infections	Lawlessness		Lack of legal and administrative compliance
			Lack of access to Western-standard medical care	Organized crime		
				Violent crime		

Terrorist attacks, natural disasters and epidemics can shock many individuals. Therefore, a company must be prepared and take care of the safety and health of their employees when they send them on assignments abroad (Rauramo 2017). According to BCI (2018; pp.11) it is important that preparations for crisis situations have been made and that a system is in place where a notification goes out to the employee before a crisis situation happens.

It is possible, that even though a company has prepared for the business trips and assignments, surprising and crisis situations can happen that a traveller must face during their assignment. In these kinds of situations, it is good to have procedure that mandates how to act in such situations. Everyone, who travels, should know their contact information of contact person. When business assignments and trips are made to countries where there is a possibility for political issues or for natural disasters, the procedure for case of emergency is very important. (Rauramo 2017)

Heljaste et al. (2008) list a few basic rules with which hazards can be reduced during a trip; awareness, alertness, keeping a low profile and unpredictable routines (Heljaste et al. 2008, pp. 123).The more you seem like a tourist during the trip, the more easier of a



target you make of yourself. Even though terrorism has clearly risen as a safety risk in recent years, it is still very unlikely to get involved in situations that are caused by terrorism. (Dyment 2019)

It should be remembered that there is no such thing as perfect safety, even if your travels have gone without problems. It does not necessarily mean that safety in the company is handled correctly, it might just mean that the traveller has been very lucky. Usually work assignments go well with no problems relating to safety but working in foreign conditions and places increases the risks that are included in traveling. (Heljaste et al. 2008, pp. 122)

### **3.5 Travel safety**

Careful planning is in a key position when planning business trips and assignments. When an employee searches for information on possible health-related issues in advance, they actually search for information on the hazards and harms of the business trip (Behrens 2012). It is good to prepare for the trip carefully by getting acquainted with the agenda and destination of the trip. The best information is usually received from other employees who have visited the destination before. (Hara et al. 2016)

According to Gallagher from GBTA (2018) business travellers think that female business travellers face more harms as well as hazards than male business travellers. When an organization has done its risk evaluation, business travellers think that there should be more consideration towards safety of females during their business travels. There are some specific countries or cities, where sexual harassment, assault or kidnapping are reported as the top of safety problems for women. (Gallegher 2018)

#### **3.5.1 Before travel**

When business assignments are oriented towards countries abroad, it is recommended to get acquainted with the destination country with the help of the Ministry of Foreign Affairs of Finland. A travel notification should also be done with the help of the same Ministry, in crisis and emergency situations the Ministry can be in contact with the traveller. (Mäkinen 2018; Ulkoministeriö 1a N.d.) A traveller should get acquainted with the culture, possible hazard factors in regard to diseases and traffic especially if the country is unfamiliar. Because of differences in culture and norms, especially women should pay attention to their clothing and how they dress as there can be some expectations and limitations regarding their clothing that the traveller should be aware

of. Information and experiences can be enquired from colleagues who have previously visited the country. Usually this type of information is very practical. (Heljaste et al. 2008).

When going on a trip, you should check that the most important travel documents are in order and that you have stored important contacts on your phone so you can communicate with necessary contacts (Mäkinen 2018). In most countries, the passport must be valid even after the trip, so it is good to ensure the validity of passport before the trip. In case of potential theft or loss it is good to take a copy of the most important documents and keep them separate from the original documents (Hara et al. 2016; Heljaste et al. 2008)

It is important to consider a health of individual before a trip. No one should be forced to go on a trip, rather the decision of the business trip is made in an agreement with the employer and the employee. There are hardly any obstacles when posting to an employee to a foreign work assignment, but the decisions should be made case by case, and consider if the assignment fits the employee. Before going on a work assignment, it is good to have a health check, especially if the upcoming assignment is long and if the employee has any illnesses. Occupational health will provide the information and medication necessary for the trip. Vaccinations should also be in order and it is good to ensure that they are in effect before you leave for the trip. Occupational health can also provide the employee with a small first aid kit for the trip. Exotic diseases during the trips are very rare, but generally the trip can be ruined by diarrhoea received from local cuisine or getting into a traffic accident. (Hara et al. 2016; Antti-Poika 2016)

The employer is obligated to take an insurance for its employees during the business trip (Rauramo 2017). It is also a good idea to have your own insurance on condition in the case that you come across situations where the insurance policy of employer is not comprehensive enough. In the European area, the EU, European Economic Area (later EEA) countries and Switzerland, there is a European Health Care Card which allows the traveller to receive health care in unexpected and necessary medical cases. (Ulkoministeriö 1a N.d.)

### **3.5.2 During travel**

While on work assignments and trips, it should be remembered that you represent your organisation, so caution should be used regarding the information that is shared with customers, and you should also behave in a way that represents the values of the organisation. Attention should be paid to surroundings, for example getting acquainted

with the emergency exits of the accommodation as well as the work environment, spending unnecessary time at airports should be minimized. (Hara et al. 2016)

Adapting to a foreign culture in a new environment requires quick learning as conditions may highly differ from accustomed circumstances. The circumstances in foreign cultures may change rapidly, so it is important to follow the organizations, the Ministry of Foreign Affairs and the local guidelines during the trip to avoid unpleasant situations. Knowledge of the local language or at least learning a few phrases will help with the locals. (Heljaste et al. 2008; Rauramo 2017)

During the assignment abroad, it is important to follow the laws of the target country and respect their habits, as an example regarding dressing and religious rules. Rules and laws are not followed only for complacency reasons, but they also keep the traveller from trouble during the trip. It is a good idea to pay special attention to moving around on a business trip, as usually moving around is the riskiest thing during a business trip. You may get robbed, beaten, killed or kidnapped while you move around during your trip. (Heljaste et al 2008, pp. 124- 126; Hara et al 2016; Rauramo 2017)

### ***Accommodation***

It is preferable to acquire information on the accommodation beforehand and while traveling abroad. Hotels previously known to the organisation and previous travellers should be preferred. Getting acquainted with the emergency exits of the hotel is advised, if an alarm goes off in the hotel during your visit, you should follow the local safety instructions. In the case of an alarm take your passport, phone, the means of payment and the key card to your room. (Rauramo 2017)

### ***Mobility***

In terms of mobility be careful and plan your routes in advance. Walking cannot be avoided during business trips, so movement should be made with determination while also observing the environment. And if the workstation has arranged transportation for you, it is advisable to use it as using vehicles to travel may be safer than walking. You should not carry your valuables with you while walking, but rather leave them in the safe storage at the hotel. Walking can and should not be avoided as long as you know when and how you move. (Rauramo 2017, pp. 27; Heljaste et al. 2008, pp. 126- 128)

Traveling by car is more desirable than walking on foot, as it is generally assumed that an employee traveling in a car is better protected than an employee who is traveling on foot. However, traveling by car is not entirely risk-free as it also involves risks, such as car hijacking, robbery and theft. (Heljaste et al. 2008, pp. 130) It is advisable to check the area next to the car before driving to make sure there is nothing suspicious in the

area. Remember to check that there is enough fuel and that the vehicle has all the necessary documents such as insurance papers. Never pick up hitchhikers. (Heljaste et al. 2008, pp.132; Rauramo 2017, pp. 24)

### ***Being the victim of a crime***

A traveller that looks like a tourist has a higher risk of being the victim of a crime, as robbers assume that westerners have valuables with them. Robbery situations usually begin suddenly, and the situations usually do not threaten the life of the victim, rather the interest of robbers is focused on the valuables, so it is better to give the robbers what they want without resisting. Therefore, it is advisable to have a false wallet that can be given to the robbers. If you are the victim of a robbery, report the crime to a local police station as a police report may be needed to renew your passport or credit cards. (Rauramo 2017, pp. 24; Ulkoministeriö 1a N.d.)

Anyone can fall victim to rape or kidnapping and in principle they are possible in any country or continent, but they are more likely in some specific countries. Usually, a westerner who has an influential position may be the victim of a kidnapping as the kidnappers can try to gain political or economic power. The most important thing in kidnapping situations is to try to stay alive and thus it is important to behave in a way that does not provoke the kidnappers. It is vital to stay calm, obey the kidnappers and try to figure out the background of the kidnappers and the location where they are holding you. (Heljaste et al. 2008, pp.137)

Especially when traveling to Muslim countries it is a good idea to dress according to the culture so that you do not provoke the locals. However, it is important to remember that rape is never the fault of the person that was raped. If you are the victim of rape, move to a safe location and ask for help. Do not wash yourself or change your clothes so that possible evidence will not be destroyed. Seek medical advice immediately, followed by a report to the local police. (Ulkoministeriö 1a N.d.; Heljaste et al. 2008, pp. 144-145)

### ***Health***

Traveling abroad increases health harms as well as hazards, as you may encounter something abroad that you would not encounter in your home country. From a health point of view, it is good to keep vaccinations in order and preventive drugs for illnesses such as malaria should be procured before the trip. Infectious diseases usually spread through contaminated food or water. That is why you should pay attention to hygiene and think about what you eat and drink. (Rauramo 2017, pp. 25)

### ***Falling ill***

If you get sick during the trip, it is advised that you inform your employee or one of travel companions. If your condition worsens and you are unable to seek medical care, there is at least one other person who is aware of your condition. Temporary residents of EU and EEA countries or Switzerland are entitled to medical treatment which can be certified by a European Health Insurance Card. If you get sick during the trip, it is a good idea to contact the insurance company for further information. (Rauramo 2017, pp. 25; Ulkoministeriö 1a N.d.)

### **3.5.3 After travel**

The measures which to take after an assignment are largely dependent on if the trip has been a local one or one to abroad. If the trip has been in a tropical country, health should be monitored after the trip for possible contagious diseases.

Especially after long work assignments an inspection should be conducted in the health of the employee so that the general level of health can be ascertained and if they for example need booster shots or vaccines after the assignment and how they cope at work. (Antti-Poika 2016)

After the trip, all billing information regarding the trip should be given to the employer with the receipts. Attention should be paid to information fishing and credit card activity after a trip, if suspicion rises that the credit card may have been copied. The length of the trip, the intensity of the workdays and jet lag may also affect the recuperation rate of the employee.

## **3.6 Crisis management**

Bernstein (N.d.) has made a list of what crisis management has gone through the years. Crisis management belongs to everyone at the organization and it needs the support of the executive board and the CEO. Not having the CEO support crisis management, is the same thing if the organization would not have any crisis management plans at all. According to Bernstein (N.d.), everyone from the organization needs to know what to do in crisis situations, even if some people do not have to do anything.

Work assignments abroad can raise the threats that are directed at an employee. Situations considered as critical are where the safety or life of the working community or employee is threatened. These situations include abductions, kidnappings, rape, natural disasters, terrorist attacks and accidents that lead to death or serious injuries. Crisis situations are not only affiliated with work assignments and trips abroad, they can also

be encountered in the local office. A crisis can be derived from the financial uncertainty of a company, a threatening situation or possibly harassment in the office. For example, lay-offs can cause temporary crisis situations in a life of employee, for which a supervisor or manager should give support and help for. (Barton & Turner 2016; Bickley 2014, pp.101-102; Rauramo 2013)

Even if the work assignment has been prepared for, surprising and unexpected situations can emerge no matter how well the trip has been planned. Crisis situations are rare, but their effect on the employee and the working community can be significant and because of this, they require special crisis management. (Bickley 2014 pp. 101-102)

According to Bickley (2014) an organization should have an action plan for these types of situations. If an employee has a crisis situation while on a work assignment, the organisation should strive to support or coordinate the employee as fast as possible with these plans. (Bickley 2014, pp. 102) In principle, everyone is responsible for their own safety and property, and it is good to follow the instructions that the employer and the Ministry of Foreign Affairs of Finland have given. In crisis situations such as natural disasters or politically unstable situations, news from the media should be monitored to receive the latest information and the guidance of local authorities should be followed. (Heljaste et al. 2008, pp. 145-146; Ulkoministeriö 1a N.d.)

The best way to prepare for a crisis is to create a scenario of a possible event that will then be prepared for. Planning can help you avoid certain situations and systematically complete situations and changes. A team should be assembled that would undertake the task of informing employees of crises and changes to the working community. The team could plan crisis communication situations and arrange help from occupational health services. Not all crisis and sudden situations, such as natural disasters can be prepared for as well as other situations as they usually happen suddenly. (Barton & Turner 2016; Rauramo 2013)

## 4. RESULTS

### 4.1 Planning

#### 4.1.1 Legal demands of safety procedures

The OHSI and TSI should contain some key points which direct the way of the instructions and what the instructions should contain as well as the points and guidelines that are seen as important through the findings from the reference materials. The safety at a workplace is mandated by local legislation, and for example in Finland an employer has to abide by the Occupational Safety and Health Act (738/2002), Occupational Health Care Act (1383/2001) and the Criminal Code of Finland (578/1995) regarding the law for employment offences. As an addition to legislation, customer companies can set certain safety requirements for organisations so that they can work in consensus.

According to the OHS Act (738/2002), a workplace must have emergency preparedness, 5% of the personnel should have undergone first-aid training. Improving safety at the local office as well as during business trips is seen as a trust relationship between the employer and employee, where both parties have to know their own responsibilities and requirements regarding safety issues. The employer has a so-called exercise of all due care regarding its employees, but the employee also has to participate in the improvement of safety and notify the employer of any risks that they notice in the workplace.

The responsibilities and requirements regarding the improvement of safety and preventing the accidents of both the employer and employee should be mentioned in the OHSI. As well as defining the specifications of a safe working environment and how the employee can access the occupational health services. The employee should be aware of the persons responsible for Occupational Safety and Health in the workplace as well as the location of first-aid equipment and the office emergency plan.

Accidents rarely occur in office conditions, but increasingly, the main causes of absenteeism among working-age people as well as early retirement are mental health problems and musculoskeletal disorders. Creating solutions to prevent such events from occurring should be invested in. These issues that affect health should be taken into account when designing employee workstations and tasks.

Working during work assignments should be as safe as working in the local office, but that is hardly ever reached, because for example during work assignments abroad the

working conditions can be significantly different to what the employee has been accustomed to. In previous projects preparing for unpredictable events has been brought up and who to contact in case of an accident during a business trip or work assignment.

### **4.1.2 Demands of customers**

Etteplan has customers who require that an employee has completed courses on occupational safety or safety at electrical work to be able to work in the customers projects. The validity of the cards is checked before the employee can be sent to work in the premises of customer. Valid cards and courses should be entered in to the internal systems of Etteplan. Customers can also demand that an employee of Etteplan participates in safety training arranged by the customer who goes through harms as well as hazards, familiarization with the safety plan and location of the first aid equipment within premises of the customer.

The customers of Etteplan have set minimum requirements on some work tasks and mobility. For example, these kinds of tasks are working with heights or in hot conditions or using a vehicle to handle work tasks. When an employee of Etteplan works in the customers premises the customer is responsible for the safety of the employee. In addition to Etteplan, customers also have a zero-tolerance in regard to alcohol and other substances such as narcotics, and if abuse is suspected the customer can order the employee to undergo alcohol or drugs tests.

## **4.2 Evaluation and developing**

### **4.2.1 Current situation at Etteplan**

The work conducted at Etteplan is mostly done with the computer, in the offices of Etteplan or customer. Employees can also be on work assignments locally or abroad if the work so demands and working on an assignment can have very different working conditions compared with the familiar conditions of their own office.

A current-state analysis of Etteplan was conducted during March of 2019 by interviews and by examining the current TSI and OHSI. The interviewees worked on different levels, positions and locations in the organisation in Finland. Through the current state analysis, it was found out that every office has the legally required safety representatives as well as a personal emergency plan. The law demands that the employer has an accident insurance policy for the employees, Etteplan has an agreement of this with the insurance company.



Two safety representatives from different offices as well as an EB member were present during the interviews, which gave a wider viewpoint to the safety aspects of Etteplan. Interviewees had no knowledge of accidents happening during their tenure as accidents rarely happen in office conditions as they put it. One of the interviewees had just slipped in front of their office due to the weather, but other accidents were not brought up during the interviews.

The EB member also concurred with the safety representatives of the fact that accidents rarely happen at the office and rather at work assignments on sites. If an employee of Etteplan should have a serious accident during a work assignment or in the office, the serious accident would be processed and reviewed by the EB. While interviewing the safety representatives, questions regarding bullying and harassment in the workplace were also asked. It was stated that Etteplan has a zero-tolerance policy regarding drugs and such substances as well as bullying and harassment.

An early care process is in place regarding the use of substances and drugs, which can be applied to intervene in a use of employee of these substances to help the employee. Due to the sensitive nature of the matter, third parties which include the safety representatives do not have the right to know whether some people are being directed to the early care process.

According to the other safety representative there had been a harassment situation in their office which however resolved itself quickly as it was merely a case of misunderstanding. The other office had had a few cases of bullying which have required interference and one time an outside person from healthcare was involved in clearing up a bullying case. The safety representative wondered however that they were not invited to join the conversation even though the case was a part of their jurisdiction.

Etteplan has arranged occupational health services with an office providing medical services for offices. At the moment Finnish agencies do not have a common occupational health service provider, but rather the service provider is agreed upon locally. Representative from the occupational health services can visit the office if their presence is required, for example in cases where the ergonomics of workstations is considered, or an employee requires special display screen glasses for computer work. Etteplan has modernized its premises and increase the comfort level of the offices. Office furniture has been refurbished according to work ergonomics, for example the tables in the offices are electrically operated that offer the employee more adjustability which allows them to find the perfect work position.

While researching the workplace safety surveys, the problem was that information on how they were conducted was not found on the intranet page of the company or they were conducted several years earlier, and for this reason there is a suspicion if the information for the offices are still relevant. For example, the last job survey in office of Etteplan in Jyväskylä was conducted in June of 2015, where workplace ergonomics and the working environment were surveyed together with staff from the occupational health services. During that time the office was given some suggestions on improving the ergonomics, the office also lacked the required amount of first aid capable personnel, the minimum amount is stated in the OHSA.

## **4.2.2 Results of interviews**

In the interview, employees of Etteplan were presented questions related to occupational safety and familiarization. The interviewees have worked for Etteplan for different lengths of time, where the shortest employment being a few months and the longest being over 20 years.

### ***Job orientation***

The interviewees had different experiences of the job orientation process. Most of them thought that the familiarization was sufficient and that the most important aspects of the work were handled during the familiarization process. The work consists of self-learning so many of the interviewees thought that an independent and initiative problem solving comes with it. There have always been more experienced employees in the workplace, who have helped new employees with their problems.

The reason why the familiarization process was mostly seen as good was also reflected in the fact that most of the respondents were aware of their workplace emergency plans, the location of the first aid equipment and they were able to name their offices occupational safety representative. In addition to the first aid equipment, the interviewees were asked if there was a defibrillator in the office, the answers to that question were divided as some offices had a defibrillator and its locations was known, but most of the interviewees were not aware if their office had a defibrillator, and if they did, they did not know its location.

Some of the respondents had not experienced the familiarization process as sufficient. These interviewees considered that they were hired as professionals in to the company, so certain initiative to solve problems was and is required. They felt that they had not gotten a proper introduction when entering the company and they had to do a lot of self-learning through the intranet of company. They wished for more guidance from more

experienced employees or possibly a tutor program, where a more experienced employee instructs the new employee. A poorly received orientation was also reflected in the answers of the interviewees. When they were asked questions such as; who the Occupational Health and Safety representative is, where the first aid equipment is located and whether the office has a defibrillator or not. The interviewees that felt that they had received poor orientation did not have answers to these questions.

*”A good familiarization process increases the motivation and well-being of an employee. When the familiarization process is good, it really feels like you have been taken in to the group”* – Comment from one of the interviewees.

### **Comfort of the work environment**

It was clear from the comfort of the working environment that some of the offices had invested more in ergonomics and overall comfort than some offices. Many people work in cubicles where constant noise is abundant, most of it can be blocked with headphones, but the loudest conversations can be heard through the headphones.

*“If an employee feels that a working in a cubicle with background noise makes it difficult to concentrate, it is possible to get the employee a noise cancelling headset.”* – Comment from one of the interviewees.

The answers also showed traveling and working in the premises of customer. The modernization of the premises has been seen in the offices, the comfort of the offices has been improved and new furniture has been added to the offices including the electric tables that have caught the attention of employee. On the other hand, some felt that the work environment was not very comfortable, and it could be possible to develop the work environment with a little renovation or by designing a new office layout. Some felt that the furniture is slightly outdated and could use some renewing. For example, office chairs in particular were considered rather poor.

Employees who travel a lot in their work experience a varying difference in the comfort and ergonomics of a work environment, depending on where they are. There are no complaints in office conditions, but working conditions at work sites are not always very ergonomic and quite often there is a lot of noise at the sites. Usually safety training and a valid safety training card is required to work at sites.

### **4.2.3 Results of interviews with traveling employees**

In the interview, employees of Etteplan were presented questions related to travel safety and preparing for trips and assignments. The interviewees had both domestic and international assignments and the length of the assignments ranged from one day

domestic trips to international assignments that last weeks and assignments that take place irregularly. Some of the interviewees travel every week and others may make one trip a year or even less frequently.

### ***Business trips and assignments***

The interviews revealed that Etteplan conducts quite many different types of business trips. Some of the interviewees market Etteplan and travel to the customers location to sell Etteplans expertise while creating new contacts. Some of the trips are demanded by the customer company as site installations, measuring, monitoring or implementing trips. Some of the interviewees have gone on training and meeting trips. Business trips have been made in Finland, where the length of the trips varies from one day trips to three-day trips, the length of trips abroad varies. In Europe, on average, trips have been from two to three days, but in destinations that are farther away in the east and west they can last from a few days to several weeks, depending on the agenda of trip.

### ***Preparing for business trips and assignments***

Preparing for a business trip is dependent on where the trip is headed. For local trips, the interviewees had booked travel and hotel tickets well in advance as soon as they received information on the destination and agenda of the trip. Preparing for business trips abroad has been dependent on where the trip is going and how long the trip is going to be. The interviewees have checked that their insurance policy is in order, familiarized themselves with the local weather and searched for basic information of the destination country for example with Google Maps and how to get to the site.

If the destination country is an exotic country, such as countries located in the Far East and Asia, the interviewee has checked with occupational health care services that their vaccines are in order or if they need new ones for the trip. One of the interviewees had had to undergo a thorough health check before being allowed to work in Spain. Some of the interviewees had been on a business trip to India, but mentioned that if the assignment would be headed there it would be good to start taking malaria prevention medication well in advance.

A majority of the employees had not familiarized themselves with the current TSI. A few of the employees had read it during their first trips or when they first entered the services of Etteplan. For many of the interviewees, traveling and going on business trips is such a routine that they do not feel a need for instructions. Mainly information on who to contact if something happens during the trip was required. Some of the interviewees thought that when a newer employee leaves for their first business trip, they should

receive proper instructions to prep them for the trip so they would know what they might be facing.

Some of the employees going on trips had received instructions from the customer and if they had familiarized themselves with Etteplan's current instructions, they felt that the instructions of customer complemented instructions of Etteplan. Some of the interviewees had received an email from the customer that contained the general information of the destination country, which they had read through before the trip. Most of the employees had not received instructions or information regarding travelling from the customer, as the information that they had received was mostly general information related to the project itself.

### ***Necessity of the trip***

Although technology has increased the number of possibilities for working remotely, business travel has not decreased. The usefulness of computer programs such as Skype divided the interviewees; others saw it as a very useful tool and others did not like using it. The ones that did not like to use Skype, only used it to handle mandatory Skype meetings and would much rather travel to the location to have a face-to-face meeting. The ones that saw it as a very useful tool used it as much as possible.

Not many of the interviewees are ready to exchange face-to-face meetings with Skype-meetings as face-to-face meetings are seen as a value-adding feature. Meeting the person, you work with in real life makes it easier to work with them in the future as you know who you are dealing with. Business trips have also been in places where for example internet connections are so bad that Skype-meetings would be close to impossible. Some of the trips are also such that they require the presence of the employee in the destination country, such as commissioning of certain machine.

### ***Hazards of business travel***

Only a few incidents during traveling had occurred with the interviewees. However, these incidents had happened before the employees worked for Etteplan, so they were not seen as important for this thesis. The interviews brought up the same hazards as the ones generally experienced in business travel (Table 4). Working conditions, especially in the Far East may differ quite drastically from what is used in the western society, and thus extra attention should be paid to the working environment. In general, interviewees considered the eastern occupational safety culture to be quite different than what it is in Finland.

Moving and traveling are also a subject to different hazards, where the most serious hazard is considered to be a plane crash. Public transport, as well as the different culture of the countries is also something that was brought up multiple times in the interviews.

Potential delays, traffic accidents and threatening situations were brought up when discussing of public transport. Traffic hazards may arise due to traffic being on the other side of the road to what the travel has been accustomed to or by scooter and bike riders that weave through traffic. Even if the traffic laws that are applied in the destination country are similar to Finland, it should not be taken for granted that they are followed to the same degree that they are in Finland.

*” Traffic is especially wild in Indonesia, luckily no accidents have happened due to good drivers”* – Comment from one of the interviewees.

Food poisoning caused by poorly cooked food or ice in beverages and getting sick during the business trip were considered as a hazard factor. Different foods may cause diarrhoea or illness, if necessary, precautions are not taken such as watching carefully what you eat or preparing in advance by consuming lactic acid bacteria. Generally, if a disease strikes during a business trip, it circulates the entire travel group. Some illnesses had occurred to the interviewees during business trips, but help had been received from local health care or they had been prepared for in advance with antibiotics.

Tiredness and coping at work were also brought up in a few interviews, as working days on assignments are long and hard. They leave little time for recovery as work can be carried out for a week without any rest days in between. Also, domestic trips increase the length of the working day so the next day feels like you have been on the road for the whole day. None of the interviewees have been subject to robbery or violence during their travels, but they were mentioned as potential business travel hazards.

**Table 4.** Potential hazards revealed in the interviews

Traffic	Health	Threats	Others
Air traffic accidents	Sickness and illness	Robbery	Losing important documents
Public transport	Food poisoning	Violence	Accidents at site
Traffic culture	Tiredness		
	Coping at work		

### ***Recovering from business trips***

Questions regarding to recovering from business trips had a lot of diversity in the answers. Some of the employees recover well from business trips and they have not had any problems with recovering and coping with work after a trip. Others feel that it takes at least a couple of days for recovery to take place, because of the length of the working days. After a few days of rest, the employees feel fresher again and one employee commented that *“You just have to accept the fact that you need to give yourself time to recover”*. The length of the assignment also had a significant impact on the recovery process. If the trips are long and there have been multiple time-zones during the trip, it may take a week to get back in to normal working condition.

### **4.2.4 Occupational health and safety instruction**

The OHSI was designed to improve employee safety during the workday, to make everyone as comfortable as possible in their workplace. There was a need for clarity and readability in the OHSI, because if the instructions lack these functions there is a risk that the instructions will not be used at all. A number of other OHSI that are in use in other organizations and agencies have been referenced and used as guides in the creation of the instructions. While creating the instructions the OHSI of Deakin University, Western Retail Lumber Association, Heart Foundation Electric Sectors have been researched. (Deakin University 2018; Western Retail Lumber Association N.d; U.S. Department of Labor, Occupational Safety and Health Administration 2011; Tamminen 2012;). Existing OHSI have been studied, and through their content and examples OHSI update for the Etteplan has been created.

The structure of the instruction was designed such that the instruction would not be one big file, but rather it would be possible to open desired areas of the instruction from intranet of Etteplan by selecting the title links. The sub-areas open as separate files, so that the guide is not too heavy to read, and the reader is not shocked by the sheer number of pages and can pick the important areas for reading. Some information was already available on the site, but some of the content has been improved or re-written. For example, in this work it was not considered important to change the existing information about alcohol and drug policy or harassment as they are sensitive topics and their content was already sufficiently informative. Part of the ready-made material was found in English and some in Finnish, but the content created in the study was written in English.

The main headlines of the instructions were legislation, duties at the workplace, workplace and its safety issues, occupational health services, emergency preparedness

and tips for working safely. The tight case packages were seen as the most important issues for occupational safety, which should be a part of the OHSI. The first level headlines open up their own files which can if necessary, retrieve more detailed information about the topic with sub headers. For example, responsibilities and liabilities in the workplace prove their own content for the employer, employee and safety representatives. If necessary, one can also retrieve information from one of the main headlines on the main page. The structure of the OHSI can be seen in Appendix A.

#### **4.2.5 Travel safety instruction**

A thesis work group from Etteplan was involved in the developing of the instructions, where the group gave suggestions for development and matters related to the content of the safety instructions. As the employer is responsible for the employee while they are on business trips or assignments, the travel instruction was sought as an operating model for the employer and employee. Already in the early stages of development, the issue was raised by the work group that the instructions should distinguish between short- and long-term work assignments into their own areas. That idea was taken into account in the development of the instructions, but later it was noticed that from a safety standpoint it had little effect on the preparation whether it was a short- or long-term work assignment.

While creating the instructions, a number of different TSI models from various sources have been used, which have been quite similar in terms of content. Ideas for the TSI have been retrieved from the Ministry of Foreign Affairs travel instructions, the Health and Welfare Institute and the Occupational Safety Centre website, The CARE International Guide, and TSI from a number of different organizations (Ulkoministeriö 1a N.d.; Antti-Poika 2016; Hara et al. 2016; Rauramo 2017; Bickley 2014; BBBSRC Safety for Business Travel Policy N.d.). The structure of the TSI is similar to the structure of the OHSI, as its introductory page is capable of opening its own file by clicking on each title. There was not as much ready-made material as there where with OHSI. Most of the updated instructions were written during this study.

In the TSI preparing for the trip, insurances during travel, travel agency, documents related to foreign travel, accident reporting, crisis management, important contact information and useful travel related links were highlighted. The TSI as well as the OHSI both have lower titles under the main titles, which give more information of the subject of the main title. The frame for the TSI can be seen in Appendix B.



### **4.3 Evaluation of the instructions**

The structure and content of the OHSI and TSI have received feedback from the thesis work group during the study. They have also given suggestions for developing and improving them, which have been taken into account during the development phase. As the suggestions have been used in the development of the OHSI and TSI, they are not presented as separate results. The actual testing of the instructions will be done during July 2019. Because the testing should not be conducted carelessly, and sufficient time must be reserved for it, the whole testing process is not a part of this study. However, feedback on the testing of the instructions is collected and used in the framework, so possible corrections can be done to the instructions before their actual implementation and release within the fall.

## 5. DISCUSSION

European directives together with the Finnish legislation, such as the Occupational Safety Act (738/2002) as well as the Occupational Health and Safety Act (1383/2001) as well as the Criminal Code of Finland set certain minimum requirements for the instructions when they are based on Finnish laws. According to the Occupational Safety Act (738/2002), the employer must ensure that the employee is adequately trained for their work and that the working environment is safe and healthy. According to the Occupational Safety Act, an employee is not left without responsibilities when it comes to developing and improving workplace safety.

The Occupational Health Care Act (1383/2001) requires the employer to organize occupational health services for its employees, the purpose of which is to prevent work-related accidents and illnesses. There must be a written action plan of the occupational health care services, which define the objectives and needs of occupational health care and identifies possible needs affecting the health of the workplace (Työterveyshuoltolaki 1383/2001, 11§)

Even though a flawless safety environment can never be achieved, it is desirable for an organisation to be prepared for different factors and situations which will help in the case of an accident or threat. It is hard to develop a safety of organization by copying plans and procedures from another organization, because every organization is different. There are good existing procedures and plans, that can be utilized when safety of organizations is developed. (Heljaste et al. 2008, pp. 122)

### 5.1 Validity and credibility of results

Etteplan employs over 3 000 experts around the world, some of whom travel more or less in their work. Due to the reliability of the results of the study, a selection was made in the course of the study that the interviewees were selected from employees in different Finnish offices, who either worked mainly at Etteplans own office or at the customers premises. This enabled the ability to gain credibility in the results, as the study aimed to identify how safety is reflected in different offices and from the viewpoint of different employees. If the focus had only been fixed on one specific office, it might have affected the results of the interview as it could have given the impression that safety matters are on point in every office or on the other hand that they are handled only somewhat correctly.

Only the employees of the Finnish offices were interviewed in this work because the updated OHSI and TSI are designed for the use of Finnish offices. Therefore, the instructions only take Finnish legislation into account. The guidelines of other countries should be based on the new OHSI and TSI, but they should take into account national legislation and its requirements in different countries.

The reliability of the interviews could have been improved by recording the responses, which would have allowed going back to the interviews when typing them out and ensuring that the interviewees answers were understood correctly. As the interviews were written down and not recorded, a chance for small misunderstandings or clerical errors were present during the interviews.

The interviews focused on familiarization and preparing for business trips as well as possible risks during the trip. All of the interviewees did not go on business trips, but were involved in safety activities of their workplace, and thus they also gave a broader perspective on how occupational safety and health is reflected in the work of the offices. The interviewees made domestic trips that were directly commissioned by Etteplan or trips due to customer projects. The length of the business trips ranged from one day domestic trips or trips to Europe, to a few months in the Far East. During the interviews, insight was gained into the types of business trips that are conducted in Etteplan and what kind of agendas they contain.

When getting acquainted with current practices of Etteplan in the field of safety at the office and on business trips it was discovered that information may be found in different places depending on the office. For example, there were office-oriented differences on how information is gathered on intranet of each office. In addition, workplace surveys have not been done frequently. Familiarization was felt to be varied in offices of Etteplan; most employees were satisfied with the process, but some respondents clearly disagreed. The familiarization process that was conducted in customers premises and sites was seen as better due to more strict safety requirements.

Knowledge differences between employees were found, for example in matters relating to occupational safety, which was clearly influenced by the fact that the familiarization was felt to be poor or inadequate. If the familiarization was experienced bad, the employee had a poor knowledge base about whether they knew the location of the occupational safety officer of office or first equipment at their office.

The interviewees whose jobs include traveling were quite experienced travellers and all of them had their own routines for traveling. Therefore, the interviewees did not see the TSI all that important. There were no employees involved in the interviews who would,

have made just a few business trips, as many were experienced business travellers which may have given quite unilateral answers. If the interviews would have had a larger set of people who had been on their first business trips, it might have affected the results. As the interviews revealed, experienced travellers have developed clear routines for travel. Therefore, even if more employees who travel a lot would have been interviewed, it is very likely that it would not have affected the results.

There is no one right way to implement OHSI and TSI, but different legislation and requirements define the content of the guidelines on a case-by-case basis. The success and correctness of the OHSI can be seen in the fact that by following the OHSI in the workplace awareness of safe work at the workplace can be increased. The success of the TSI can be viewed successful when a business trip has been conducted successfully and safely.

## **5.2 Scientific contribution**

The research showed that there are as many different OHSI and TSI as there are different organizations and government agencies. The structure and message of the instructions is largely determined by local legislation, which sets requirements for the content of the guidelines. In addition to legislation, work tasks influenced the contents of the safety instructions, although the body of the safety instructions was the same regardless of the work task, different tasks could further specify some safety aspects. The instructions used in office work did not necessarily pay much attention to electrical work or high-altitude work, but rather highlighted ergonomics and the overall well-being of employees. In addition to ergonomics and well-being, installation work naturally included safety in different working conditions.

Familiarization is one of the most important processes when implementing a new employee into the company. As a few of the interviews revealed, poor orientation can be seen, for example as a bad feeling in workplace safety issues and could also be viewed as poor leadership. Familiarization is also an important part of business travel, where experienced travellers thought that travel instructions are a good thing for first time travellers, as it prepares them for future situations. The best information on business travel can be received from colleagues that have previously visited the same location.

One thing that was found out from the other studies is that procedures should be easy to read and not too long, because if they are too lengthy no one will be using the procedures. Because of this, the body of the instructions was developed so that the reader can at first glance find the information they are looking for in the table of contents,

without having to wade through the instructions page by page. The developed TSI and OHSI bring new meaning to safety know-how of Etteplan, as they have been updated to better meet requirements of today and have easy access to information.

The updated OHSI has compiled all of the related safety issues into the same document, making searching for information easier due to the decreased need of searching each individual nugget of information through the intranet of company. The OHSI has a clear collection of work-related responsibilities and obligations, guidance on safe and ergonomic work. It also includes a completely new six-point tip guide for safe work, which was not included in the previous OHSI.

The new TSI has the same goals as the OHSI, one document that is compiled of the most critical information regarding to travelling and safety. Compared to the current TSI, the new TSI gives a deeper insight into all of the aspects of business travel. Clear instructions have been added to it on how to prepare for work assignments at home and abroad, and how to behave after assignments and what to do after the assignment. The instructions provide easy-to-find information on important contacts, insurance, what to do in the event of an accident or other unexpected situation. The previous instruction did not contain as clear guide on what to do. Through these improvements the new TSI will better support employees going on assignments and provides them with comprehensive travel information. The instruction also gives the supervisor of traveling employees better information and tools on how to deal with unexpected and possibly serious events during assignments.

Two different instructions were updated in the study for Etteplan: an OHSI and a TSI. The developed instructions are a continuation of the OHSI and TSI that are already in use at Etteplan, which have been compliant and up to standards, but have required updating. Developing safety is an ongoing activity, so Etteplan should plan for the next steps to be taken with regard to the TSI and OHSI so that the instructions are not left unused and always updated to meet existing requirements.

### **5.3 Practical contribution**

When a company invests in occupational safety, it increases customers confidence in the organization as investing in safety is reflected in the motivation of the employees to work and it also reduces the amount of sick leaves (Puuteollisuus- sivusto N.d.; Haatainen et al. 2009). The guidelines have been designed to clarify safety management both at the office and during travel so that no one must be concerned of their health and safety while at work. If the organization or at least the offices of organizations, that are

located in the same country use the same guidelines, it creates the feeling that everyone is in the same team with common ground rules.

The OHSI that are created in this study follows the Finnish legislation and are directed to the use of Finnish offices, but the framework of the OHSI is well available and applicable to the use of Etteplan offices in different countries if required. The OHSI aimed at clarifying the current information search process from the intranet of organization. Due to the clear framework of the OHSI, it is well suited to the familiarization process of new employees and it is easy for more experienced employees to check the safety and health aspects they need information on.

The aim of the new TSI was to have a single document which contains the safety facts affecting the journey, how to prepare for emergency situations, for example in the case of a crisis. The new TSI is an instruction to familiarize an inexperienced employee with travelling. In addition, a more experienced employee will also benefit from it as it tells them how to deal in crisis situations as well as important contacts if they need help or assistance during the trip. Incidents and accidents that happen in office conditions are quite rare. If accidents occur to an employee of an engineering office, they usually occur on the site where safety conditions may differ from familiar conditions. Therefore, one of the most important points of the TSI can be the important contact information, which has all the key contacts that will be needed during an emergency.

The developed framework for the OHSI and TSI would certainly be suitable for the use of any engineering office, as they take into account the working conditions typical of an engineering office. Inevitable as such, the instructions are not available in other offices, as in each organization the instructions should be developed to meet the needs of the organization, as the organization itself should be responsible for how they develop safety matters (Heljaste et al. 2008, pp. 12).

## **5.4 Further measures**

From the view of the development for both guidelines and the improvement of organisational security, it would be important to take some measures in the offices and in the organisation to enable the company continues to develop as a safety authority. Developing organizational safety is a continuous observation of the work environment and communication between the employer and the employees. Both guidelines contain references to Finnish content on intra of Etteplan. The instructions and their contents will be translated completely into Finnish. In addition, the material that is already completed will be translated into English so that the guidelines will have one single language that is

used. If similar research is conducted in the future, it is recommended that the interviews are recorded as it will certainly increase the reliability of the interviews and reduce misunderstandings or erroneous writings.

### **5.4.1 OHSI**

Etteplan has renovated its office premises and introduced new offices over the years. For example, the office in Jyväskylä that has acquired new facilities and number of employees in the office has increased, the job survey created in the summer of 2015 has not been updated with this new information. It is recommended for other offices to check that job surveys are up-to-date as it is the duty of employer to ensure that the job surveys in offices are up to date. (Työsuojelu.fi 2017)

From the view of employee well-being, it is important to take care of the comfort of the work environment because according to the newest research, productivity can be increased if well-being at work is invested in (Komulainen & Vähäsarja 2019). Investing in the ergonomics of workstations, adding quiet locations or rooms and investing in social rooms make employees feel more comfortable in the place of work. As the work in Etteplan mostly consists of sitting in front of the computer for approximately eight hours a day in a cubicle, using adjustable work stations would ensure that the employee does not have to sit in bad, static positions, but they could change their working position throughout the day if they so choose.

Etteplan has strived to modernize old and new facilities and improve their comfort levels. For example, in the interviews many employees felt that the office spaces require renewing or re-planning to make the space more functional, especially working in cubicles usually means being surrounded by constant noise. An improvement suggestion is to check the functionality and comfort of the office spaces in a way that the employees also feel that their work environment is more comfortable, because according to research it has a great effect on the productivity of the employees.

Even though offices rarely have bigger accidents or injuries, it is still important that every employee knows the location of the first aid equipment in the office and if the office has a defibrillator its location should also be known by everyone as well. As the interviews explained, not all employees were aware of the first equipment in the office. If an office does not have a defibrillator, acquiring one should be considered, because having one could be vital in the case of a heart attack in the office.

Etteplan works on a global scale, and for the sake of coherence, it would be important for offices in other countries to consider the need to upgrade the OHSI. The new OHSI created in this thesis can act as the base for the development process. It must be subject to the necessary changes on a country-by-country basis to comply with national legislation.

### **5.4.2 TSI**

For a unified Etteplan, it would be important for offices in other countries to come up to date with a TSI similar to the one created in this study. In addition to written TSI guidelines a checklist of traveller could be created in the future to enable the employee to make sure that they have taken necessary steps before the trip. The checklist could be signed and sent to the employer to ensure that the necessary measures have been taken and that it is safe to send the employee on the work assignment. Etteplan could work with its travel agency to develop the same kind of guidance that the customer has in place, that is when the trip is booked and an email announcement would be sent to the employee a few weeks before the trip informing the employee of the country of destination, which could act as a check list for the traveller.

Etteplan does not have a separate guideline in place regarding the travel of executive board members, for example can the members of the executive board travel on the same flight. At the moment travels have gone smoothly in a way that the members have travelled on different flights even though no arrangements have been made in that regard. Even though no accidents have happened to the members of the executive board, it should still be considered if it is necessary to add information to the TSI that members of the executive board (EB) and head designers of a project do not travel on the same flights to avoid worst case scenarios.



## 6. CONCLUSIONS

There is no one specific way to develop and implement safety in organizations, but it should be implemented in a way that best serves the organization. In the same way it is also good to remember in the organization that even if safety risks and hazards are identified in the company, there can be situations in which the organization simply cannot do anything. (Heljaste et al. 2008, pp. 30) However, it is good to remember that perfection in safety is hardly achievable, but with good preparation, orientation and guidance the organization can come a long way.

Working in offices has created new problems, as work-related stress and various musculoskeletal disorders have increased dramatically over the years, and these two have gradually risen to become the biggest causes of disability retirement. Investing in workplace and workstation ergonomics improves employee wellbeing and reduces the number of sickness and employee turnover. Generally, Etteplan has safety matters in office conditions on a relatively good level with some office specific differences in the results of interviews such as the familiarization process and ergonomics of the workstations.

Threats have changed over the years and especially terrorist attacks have frightened people around the world which may make passengers wonder whether travelling is safe. There are countries that are politically very unstable and situations there can change quickly. Therefore, no employees should be sent to such destinations without thorough prior orientation to the risks of the destination country. There are also various natural disasters in certain areas, which increasing the risk of travelling in some countries that should be explored and familiarised beforehand. Based on the results of the interviews, the employees are well aware of the risks associated with traveling, which they have largely avoided.

Safety starts with the managements desire to make safety policy. Occupational safety guidelines and travel safety guidelines together with the safety policy implemented by the management improves the safety of the organization as they are capable of preparing for possible risks and hazards both at the office and on business trip. Investing in occupational safety and travel safety can be seen in the wellbeing of employees and it also decreases absences derived from sickness.

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# APPENDIX A: OHSI



OHSI HR

1 (12)

27.07.2019 (Rev0)

S.Is

## Occupational Health and Safety Instructions

The purpose of Occupational Health and Safety Instruction (OHSI) is to direct employees to work safely and prevent injuries in the workplace. These instructions help the organization to manage health and safety in daily business life. Effective management of safety, well-being and health helps to reduce occupational health and safety (OHS) risks at work and improves the working environment. These instructions are designated to our employees, visitors and clients. The goal is to have everyone working together and identifying situations, that could cause harm to their own or others' health and safety.

The safety and health of a workplace is a continuously developing process, where everyone's attention is needed to observe possible risks and hazards at work. So that they can be eliminated as soon as possible, before accidents happens. Communication is the key element for improvement, and communication between employer-to-employee and employee-to-employer is especially required.

Etteplan invests in employee safety by providing a safe working environment, adequate tools and training, as well as, protective equipment when required. These instructions are a good guidance for new employees and it also acts as a reminder to other employees of good and safe working habits at work. When all Etteplaners, visitors and customers follow these instructions, the workplace and working environment will be better for all of us.

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# APPENDIX B: TSI



TSI HR

1 (15)

27.07.2019 (Rev0)

S.Is

## Travel Safety Instructions

**Business travel** is temporary travel, that is oriented to a specific workplace, because of a specific work task. Temporary travels can be domestic or international. The duration of travels can vary from one day to travels that take weeks.

**Business assignment** is work where Etteplaner works from customer location. If your business assignment takes longer than two weeks, but less than two months, it is a *short-term assignment*. If your business assignment is longer than two months, it is a *long-term assignment*.

During business travels and assignments, you represent your company. You should be careful of the type of information you share with customers, as some of it can be sensitive.

Preparing for travel helps turning strange and unexpected situations into successful traveling. Traveling creates new challenges for Etteplan and its employees as Etteplan is responsible for its employees' health and safety during the travels. Every employee is different and that is why everyone should get acquainted with safety information before their travels.

These instructions are designed to increase the travel safety as well as to give guidelines on what needs to be done before, during and after the business travel.

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