



Career Development in ICT for a Professional Association of Electrotechnical Standardization

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Career Development in ICT for a Professional Association of Electrotechnical Standardization

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The objective of the thesis was to audit the current systems and services utilized by a professional association, SESKO ry, and to subsequently consider practical improvements which were in line with the best interests of its members. This is presented in a diary format with working days described, along with weekly summaries and analysis.

The aim was to document professional development in Information Communication Technology (ICT) development, as an employee transitions from being an external contractor to an internal employee for the professional association SESKO ry. This thesis was conducted during early stages of the covid-19 pandemic, which has had substantial influence on the role and responsibilities of the author.

The theoretical framework was based on a prior working relationship with SESKO ry, acknowledging an underlying need for the adoption of new ICT procedures due to a change management process. The diary utilized a Kaizen PDCA model, with reference literature corresponding to the job description and assigned projects. Internal and unpublished material for IT system and service development of SaaS tools, service management contracts, electrotechnical standardization documents, templates for reporting and presentation material were also included in the framework.

The results of the diary confirmed early analysis of the author, in that there was a need for certain systems and services to be reconsidered. The communication methods also required a revamp, and this can be seen in weekly summaries. This was achieved through reaching a consensus within the professional association.

The analysis resulted in new projects being initiated for SESKO ry; the implementation of an IT assets management system and a move from local server systems to cloud based services. The work conducted during this thesis validated author's future employment as ICT Developer and project leader.

Keywords: Diary, service management, ITAM, ICT, consensus

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1 Introduction

The collection of this diary thesis was conducted over a 10-week period from the 20th of January 2020 through to the 27th of March 2020 while the author was employed full-time as a Security Assistant / Group Manager Assistant by SESKO ry. The position was newly established within the organisation for the author, allowing detailed collection of information and involvement with various development projects.

SESKO ry is the National Electrotechnical Standardization Organization representing Finland in the electrotechnical engineering field as a member of the International Electrotechnical Commission (IEC) and the European Committee for Electrotechnical Standardization (CENELEC). SESKO's responsibility is to implement international electrotechnical standards in Finland and to enforce them as national Finnish Standards Association (SFS) standards. SESKO is also involved with several certifying systems. SESKO is an independent non-profit professional association with its members widely representing the Finnish society as a whole: business life and associations in the field, along with electrotechnical industries, research institutes, testing organizations and authorities. (SESKO 2019)

The information gathered from this paper will guide future development within the organisation and define the authors future responsibilities.

Vocabulary and abbreviations

Arter IMS: Integrated Management System is a tool used within SESKO primarily for the compilation of working methods through process diagrams and detailed descriptions. The website for Arter Oy lists the core functions as process mapping, document and risk management, feedback, and evaluation processing, measuring results, and compiling manuals (Arter 2018).

CCMC: The CEN-CENELEC Management Centre oversees the daily operations, coordination, and promotion of all European Committee for Standardization (CEN) and European Committee for Electrotechnical Standardization (CENELEC) activities (CEN-CENELEC 2010).

CEN: The European Committee for Standardization is described on their webpage as an association that brings together the European National Standardization Bodies (CEN 2020).

CENELEC: The European Committee for Electrotechnical Standardization responsible for standardization in the electrotechnical engineering field (CENELEC 2011).

Covid-19: Coronavirus disease is an infectious disease caused by a newly discovered coronavirus (WHO 2020). The name COVID-19 was assigned by the WHO on February 11th, 2020, during the recording of this diary. At the time of finalizing this paper, the 2019-20 coronavirus

pandemic is an ongoing pandemic which has greatly influenced the authors professional responsibilities and subjects for this thesis.

CRM: Customer Resource Management is a way of better serving the customers through information-enabled relationship marketing, according to Payne (2005, 10). SESKO has a Software as a Service (SaaS) agreement with Lime Technologies. Lime CRM is described as a means of simplify the presentation of information and reduce the number of systems required to perform customer related tasks (Lime Technologies 2020).

Expert: According to the International Electrotechnical Commission website, Experts are individuals appointed by their National Committees and designated to one or more working group, maintenance team or project team. (IEC 2019.)

Group Manager: The job title Group Manager at SESKO relates to IEC role of Secretary / Assistant Secretary (IEC 2011). In practice, this refers to the project management of technical committees, working groups, maintenance teams and / or project teams in relation to the preparation of electrotechnical standardization documentation.

ICT: Techopedia web dictionary (2019) describes Information and Communications Technology as the use of technology to handle telecommunications, broadcast media, intelligent building management systems, audio-visual processing and transmission systems, and network-based control and monitoring functions.

IEC: The International Electrotechnical Commission is the world's leading organization that prepares and publishes International Standards for all electrical, electronic, and related technologies (IEC 2013).

ISO: The International Organization for Standardization is an international standard-setting body composed of representatives from various national standards organizations (ISO 2012).

IT: Information Technology is described by Rouse (2015) as the use of any computers, storage, networking and other physical devices, infrastructure, and processes to create, process, store, secure and exchange all forms of electronic data.

ITAM: Gartner (2017) describes Information Technology Asset Management provides an accurate account of technology asset lifecycle costs and risks to maximize the business value of technology strategy, architecture, funding, contractual and sourcing decisions.

OSKU: Refers to an internal information system developed by SESKO for recording technical committees and members. The system in the process of being replaced by LIME CRM.

RTC: Remote Team Collaboration refers to communication software which enables workgroups to interact through a central system while utilizing addons as tools. Slack Technologies (2019) refer to Remote Team Collaboration as having all your communication and tools in one place, remote teams will stay productive no matter where you are working from. SESKO RTC refers to the SESKO workspace on the Slack platform implemented by the author for testing.

SaaS: Salesforce (2008) refer to Software as a Service as a way of delivering applications over the internet in the form of a service, without the need for installation of software and eliminating maintenance.

SFS: The Finnish Standards Association (Suomen Standardisoimisliitto) is the central standardization organization that controls and co-ordinates non-electrotechnical national standardization work in Finland (SFS 2006).

SK: Standardization committees (Standardointikomiteat) are national interest groups of experts participating within European and International groups.

WHO: The World Health Organization is a specialized agency of the United Nations responsible for international public health (WHO 2020).

2 Situational baseline

During my previous career as a business English communications consultant I was contracted by SESKO to provide private education, project trainings, proofreading, and documentation reviews. Additionally, I participated during internal audits and peer-assessments. I began working with SESKO in August of 2011 and built a professional relationship with the organisation over the 9 years of consulting there. Since 2017 the managing director, Sinikka Hieta-Wilkman, has also acted as a mentor and has had a significant impact in my decision to upskill my education. This has resulted in a decision to re-orientate my career, through focused education in information security management.

While contracted earlier by SESKO, I gained a considerable understanding of the standardization field, which will benefit me greatly during the period writing this thesis. The role and responsibilities which I have undertaken recently are new for the organisation and there will be many systems and services which I needed to familiarise with to complete my tasks. I have a strong background in the information technology field, having studied software development and graphical user interface design after high school, which will support me greatly during this career transition.

2.1 Job analysis

An agreed upon job description, with the Managing Director, defines my role and responsibilities during this period. This agreement describes, in detail, my assigned tasks and groups all into 6 areas. The first three being my main areas of focus and the latter being additional and included in all job descriptions within the organization.

1. Mapping vulnerabilities in SESKO activities for risk analysis. Reports of system and programmes to Office Manager and reports of SESKO's hardware to IT Administrators.
2. Integrated Management System (IMS-system): familiarizing, feed-back, updating, completing, and developing, possible improving proposals. Mentoring of system by Office Manager and mentoring of processes by all technical committee Group Managers.
3. Updating the PCs, penetration tests, prepare new PCs in operational readiness. Mentoring by IT Administrator and reports to IT Administrator.
4. English consultation: speech, documents, web pages etc.
5. Participation meetings appointed by Managing Director and Group Managers.
6. Other tasks appointed by Managing Director.

See appendix 1 for the enclosed job description.

My job title is twofold during the thesis period. I have been appointed as Security Assistant and Group Manager Assistant for the purpose of gaining enough knowledge and experience to better conduct my tasks. As the organisation is quite small, it will be necessary to work with, and learn from, many different colleagues during the period. This benefits me greatly, as I enjoy getting to know those around me, by presenting various challenging situations to work closely with others. The Development Manager and Office Manager are responsible for ensuring my induction adhered to the correct mindset throughout the process, meaning that of a non-profit professional association dedicated towards the member communities' concerns and the wellbeing of information for electrotechnical experts participating in national committees.

The job title Security Assistant focuses on information security concerning the office digital environment and physical security regarding matters which the housing management company are not responsible. I report to the Office Manager with regards to participation in development projects and report to the IT Administrators for IT system concerns. I will also assist the IT Administrators with hardware maintenance, performing low level penetration testing of the internal network to identify vulnerabilities and performed system updates.

As Group Manager Assistant, I am expected to participate in training days with the Development Manager, observe national technical committee meetings and familiarize with the systems and services required by Group Managers. Official technical committee meetings provide

the opportunity for me to gain detail operational knowledge regarding the administration of electrotechnical standards writing bodies. These meetings are the utmost importance for SESKO's involvement within standards. Participants are technical experts which may represent member communities or organisations from the Finnish electrotechnical sector. The meetings which I attend will all be hosted by SESKO locally, with a limited number of experts attending via GoToMeeting. While the official language for these meetings is Finnish, some discussion will be conducted in English as this is the written language of office electrotechnical standards from IEC.

Additionally, I will undergo broad education conducted mainly by the Managing Director and Development Manager with regards to the role of SESKO as a professional association and our representation within the standards writing community on the National, European, and Global level. The length of my thesis period is quite short in comparison to the typical induction period for Group Managers, evident by the quantity of technical committees scheduled during the 10 weeks. This limits my possibility to participate in official national technical committee and prevents participation with the same group more than once due to the meetings being scheduled months apart typically.

2.2 Goal of the thesis

During the thesis period, my goal is to adapt my way of thinking from that of an entrepreneurial perspective and individual mindset to a collaborative and reliant member of a team. I intend to develop my skills in the areas of Information and Communications Technology (ICT), IT Assets Management (ITAM) and project development through the agreed upon job description. Also, I aim to better my understanding with regards to the development and participation in standardization on a national and international level.

The main development project for SESKO at the time of writing this paper is a Customer Resource Management (CRM) system titled Lime CRM. The first phase of this project is set to end at the time of completing this diary thesis. This phase of the project directly influences the daily work of all Group Managers and adds additional operational development for the administration. Having a prior education in software development and long working history as a Communications Consultant, SESKO aims to benefit from my participation in the project. I will be required to coordinate with the lead developer from Lime Technologies and worked to bridge the gap in understanding of how SESKO hope the system to work.

Additionally, I will participate in a project to audit the Integrated Management System (IMS) utilized by SESKO for process mapping and documentation storage. My prior work experience, technical knowledge and newly acquired education should benefit the organisation and support my decision making. I am expected to deliver the preliminary audit of IT assets and

ideate a future management system for these set of business practices. This led to the implementation of a continuous improvement project for ITAM to amalgamate all pre-existing information collected by different process owners and improve on the business practices.

Due to unforeseen circumstances relating to the covid-19 pandemic, the expectations from SESKO changed to suit the needs of the situation. This will be witnessed throughout this paper, reviewed in weekly summaries and the final analysed in section 4.

2.3 Self-assessment of working competence

Boud (1999, 152) said, learning is a product of everyday thinking and acting, including that occurring in the workplace. He refers to Piaget's concepts of equilibrium, being the cognitive balance of new and old information. Having a previous career spanning almost two decades in education and consultancy, I have faced the challenge during my time at Laurea of needing to consider what I know correctly and admitting that which I must re-learn. Therefore, I have considered three key competences in my self-assessment. Time management, project development and communications.

I am a skilful performer with regards to both time management and project development. I have been able to take the lead myself and others in many situations during my thesis period, with regards to my assigned tasks. There have been occasions where I have been an experienced expert in the field of ITAM and service project development, i.e. Lime CRM. My colleagues have relied on me to complete tasks duly and manage my time independently.

I am an experienced expert with regards to communications, that is my ability to find a common ground in order to perform well with others, listen and hear what is being said and convey a message clear and concise. I have however been challenged on a few occasions due to some internal office meetings taking place in Finnish, whereby I need to be extremely attentive and make use of electronic translation software to ensure I am able to keep on track. There have been times when I cannot operate at full proficiency due to my level of skill in Finnish language. I have continued to use English as my predominant working language throughout this period. However, I fully intend to further my studies and gain proficiency in Finnish to be able to best conduct my work.

2.4 Examined literature

In preparation for this thesis, I studied a selection of books relating to the main subjects described in my job description. I purposefully opted for books which are available in eBook, format through Laurea's online Finna library, to have them readily available throughout the period. I personally find reading material on a portable device, like an iPad, to be easier and

more convenient. In reflection, this turned out to be fortunate, due to the shut-down of all library locations in the middle of my thesis.

In acknowledgement, the following books were considered before and during my work was conducted at SESKO. These were influential in my considerations and decision-making process during the 10 weeks and established a baseline when questioning my actions.

- CISM Prep Guide (Krutz et al 2003)
- Computer Security Handbook (Bosworth et al 2014)
- Knowledge in Risk Assessment and Management (Aven 2011)
- Penetration Testing (Weidman 2016)
- Projects in Computing and Information Systems (Dawson 2011)
- Strategy and Business Process Management (Lehmann 2012)

It is worth also mentioning that throughout the diary process, my references were often taken from standardization writing bodies. It was necessary to familiarize with the practice of writing standards, as well as use such publications in justifying my actions. My access to such publications was extensive and not all material could be references fully as they are not public.

2.5 SESKO ry stakeholders

SESKO ry is a registered professional association since 1965 and adheres to the statutes published on the organisation's website. The name was created in 1954 and comes from the initial letters Suomen, Elektrotekniska, Standardisoimis-, KOMitea (SESKO 2009). Figure 1: SESKO organisational structure, created for presentation purposes, illustrates the functional operations within the professional association and the relationships between office workers. The member communities currently comprise of 18 Finnish organisations representing the Finnish business life and non-profit associations, authorities and research and testing organizations. SESKO's Board has 10 members, and 10 vice members, representing the member communities. SESKO's office consists of 10 full time employees, 5 being Group Managers and 5 fulfilling administrative and support roles. Technical committees and follow-up groups are coordinated by the office with approximately 500 technical experts actively participating from Finland. SESKO employs external consultants, when necessary, to assist with the coordination of technical committees and follow-up groups.

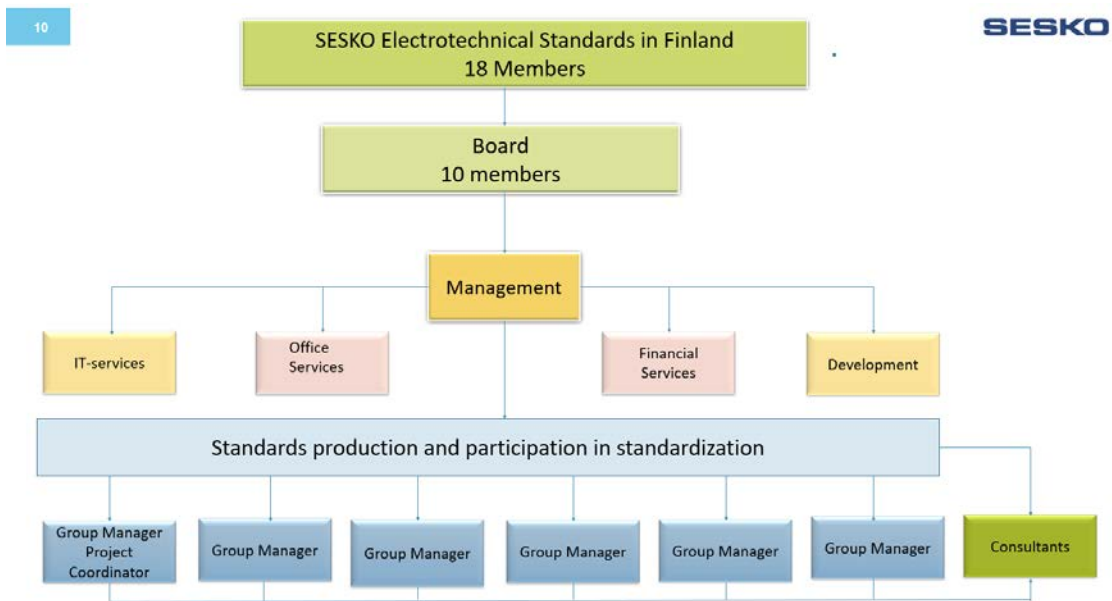


Figure 1: SESKO organisational structure

IEC (2013) defines standardization development as fully consensus-based and representing the needs of key stakeholders. Being the Finnish National Committee for IEC, SESKO must consider what is best for the members of the association and all stakeholders in policymaking. Consensus on a national level refers to actions take in the best interest for actors in the electrotechnical industry, represented by the member communities. Figure 2: Stakeholders overview, created by author, illustrates an overview of the internal and external stakeholders highlighting standards bodies directly working with SESKO: IEC, SFS and CENELEC.



Figure 2: Stakeholders overview

My role at SESKO places all internal stakeholders within the scope of my concern. I work for the betterment of my colleagues, the development of projects which innovate the organisation according to the needs and requirements of the Managing Director and the board and value creation for the member communities. Ultimately, my efforts help to improve the possibilities for the technical experts and all participants in the technical committees. To carry out this, I have close contacts with our service partners and other standards bodies.

2.6 Interaction skills at the workplace

It is my observation that SESKO employees operate in an open and cooperative environment, sharing knowledge through ideation. All colleague's welcome discussion on development projects and are willing to provide guidance towards systems and procedures which can be role specific. Daily morning coffee convenes as a forum for discussion of all manner of work and non-work-related topics. It was expressed, by the Office Manager, the importance of participation for my appreciation of organisational awareness and I have adhered to this daily. I find this open atmosphere to have been both inviting and community driven, which suits my personality. English language skills within SESKO is excellent, as much of the work conducted by all is international based, and I experience no difficulty conversing during break times.

At the time I began recording daily actions for this paper, the principal digital method of communication utilized within the organisation was email, both internally and externally. Email mailboxes are used as both an interim form of communication, as well as a long-term referencing tool for archived knowledge. I have observed email chains to be commonplace, within standardization writing bodies, with distribution lists linking all individuals at SESKO. Being more a verbally orientated person, I preferred to discuss topics in person with my colleagues and found this to be both welcomed and encouraged by all.

SESKO holds a monthly office meeting to communicate all operational information. The monthly meetings adhere to a strict agenda format, which is agreed upon beforehand. All employees provide information regarding own responsibilities and the goal is to achieve a consensus. Additional consultations take place at the office regularly and make full use of the office meeting rooms. Having worked previously as a business consultant, I find this method of communication to be quite familiar and comfortable. Additionally, I find much can be accomplished through consensus and discussion with all stakeholders as well as exceptional opinions expressed and observed through non-verbal expressions.

SESKO's Group Managers hold licences for the web-hosted service GoToMeeting to facilitate the remote participation of experts in technical committee meetings, however this is not directly available to all staff. SESKO has no experience with Remote Team Collaboration (RTC) tools like Slack or Microsoft Teams and it is my experience that having access to such tools is essential for seamless teamwork in office work. While I do prefer to speak with people face to

face, I also find it beneficial to have a chat tool for business as it reduces the amount of brief emails and allows for real-time business communication.

Coming from a career in professional business communications, I observed the overwhelming proliferation of email to be a weakness within the organisation and decided early on to question this for possible future development. I had two main concerns: the first being the physical security of information due to an on-prem exchange server and second inefficiency of interim communication. It is my intent to explore this further in this paper and use my prior expertise to help implement change within SESKO.

2.7 Benefit of this thesis for SESKO

This thesis represents a clear induction path for an individual entering work life at a professional association, specifically in the area of standardization. In that the follow key factors are emphasized; achieving consensus for the benefit of electrotechnical standards, actions carried out through a meeting orientated environment, value creation focus towards association members and flexibility of job descriptions. It is my aim to have orientated this diary in a way that both young and mature students can benefit from the experiences documented.

SESKO will benefited from having additional resource within the organization, in a time when the professional association is experiencing significant change. New information management systems and ways of working will be researched throughout the thesis period and the findings of this thesis orientate future development.

2.8 Development for working life

I considered my career path some years ago while working as a consultant, while working alongside some prominent managers in the field of ICT management. This helped steer me into the area and consider my focus. I had an interest in cybersecurity and ethical conduct, which resulted in choosing to study a Bachelor of Business Administration degree programme in safety, security, and risks management. While attending Laurea, I adapted my studies to incorporate information security management, network security and cybersecurity.

I have established myself within SESKO and will continue working there for a longer period after the thesis has been completed as ICT Developer. For the long-term, I am aiming for the position of Chief Information Security Officer as a future goal. Before this can become a possibility, I have set some intermediate goals for professional development.

- Gaining proficiency in the Finnish language at the workplace
- Master's degree in cybersecurity
- Operational management experience on an international level

3 Diary thesis report

I designed a Kaizen model PDCA, illustrated in Figure 3: Kaizen PDCA model for reporting days, for completing my weekly documentation by attempting to answer important questions when applicable. This model is based on the American Society for Quality example (2006). Minor tasks, which are not associated with my development areas for this thesis, are sometimes mentioned however focus and reason is not always applied as they are more ad-hoc. I utilized a reflective writing approach while reporting, studied at Laurea as a part of Paresh Rathod's study units, for the weekly progress analysis (The Learning Centre 2010). For style purposes, capitalisation is used when referring to SESKO employees by job title.

Plan outlines the introduction of each week in my diary thesis, detailing the main focus in relation to predetermined tasks, time management, known side projects or tasks which are ongoing during the week and the working role which I needed to adopt.

Do refers to the collection of daily records in a diary format.

Check describes the analytical process for self-assessment and fault checking to ensure relativity to the development projects of my thesis.

Act represents an opportunity for self-improvement and future planning, where possible.



Figure 3: Kaizen PDCA model for reporting days

I used my Laurea Microsoft 365 license to ensure all information was stored on the cloud while writing the diary. This included tools such as OneNote and OneDrive which were synchronized across all my devices. Microsoft OneNote simplified the collection of all relevant information in a free-form format, allowing notes, snippets, videos, and audio media to be added directly into the notebooks. Additionally, when copying and pasting information from online resources, the tool records the original location to aid with referencing later.

I created a notebook dedicated to keeping track of all information during the 10 weeks of diary collection and added separate sections for all work tasks in development. Figure 4: Blank layout for each week below illustrates the structured layout page in OneNote which was used for each week.

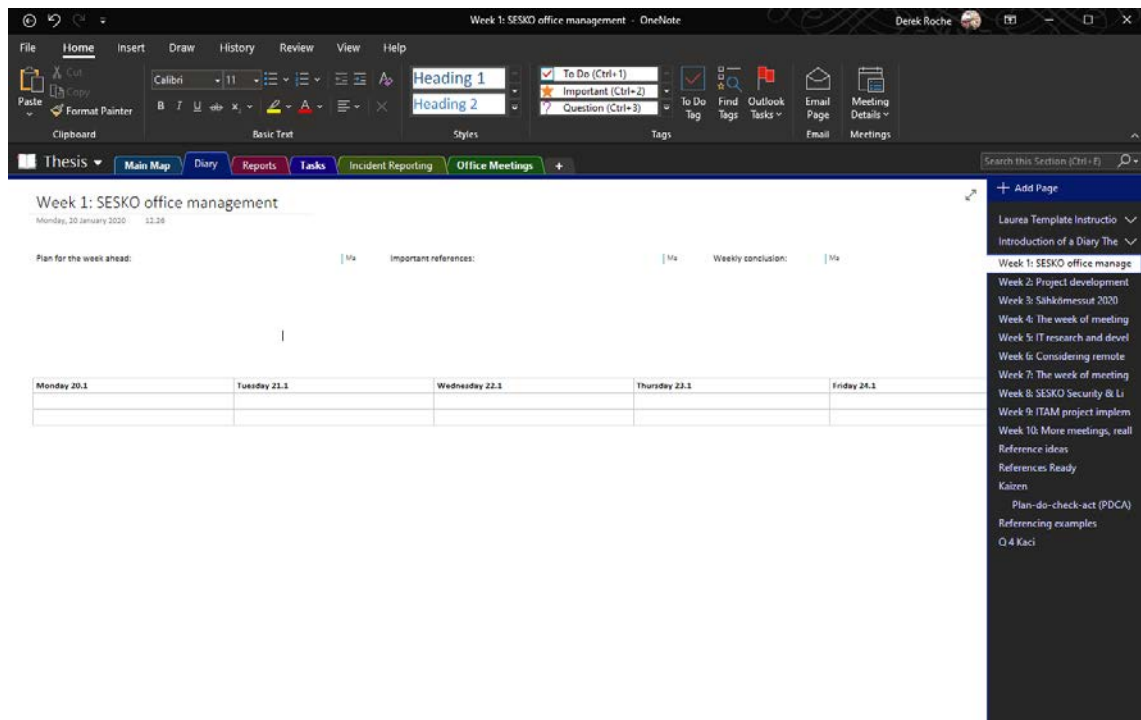


Figure 4: Blank layout for each week

3.1 Week 1: SESKO office management

The first week will be dedicated towards gaining a deeper understanding of the company's requirements for systems and services which exist and those which are planned for the near future. I need to get up to speed with the Lime CRM project, familiarizing myself further with the development software used by Lime Technologies and orientating the system towards our

needs. I also intend on spending some time on opening some IT tasks and while I do not expect to close them this week, it will allow me to research the issues further and hopefully work with my new colleagues.

Additionally, I expect to participate in various meetings throughout the week for orientation purposes. I hope to have time this week to review all documentation keeping track of our IT registry and license agreements to begin the ITAM project also.

Monday 20.01.2020

Monday morning started off early and while there were few other people around the office, I took the opportunity to make some adjustments to the database for the Lime CRM project. These changes were according to decisions made on the previous Friday, whereby I was instructed by our Office Manager to learn the best practices for generating a group identifier for committees in the database. I had discussed the issue of users inputting committee identifiers with our lead developer from Lime Technologies Finland Oy and agreed it best to proceed after some further discussion with our development team. Garrett (2002, 117) recommends keeping the interface as simple as possible, having most fields invisible to the user. It is my opinion that removing as many human input errors as possible by limiting the fields which can be entered into and having changeable selection boxes seemed the best way to proceed, so I began to prepare a proposal for our team.

After lunch, I discussed this further with our Office Manager and agreed on most the group types and some of the subgroup options when creating committee groups in the Lime CRM system. It was necessary, however, to speak with the Development Manager also to gain a better understanding of the different types of working groups and other group types which SESKO arranges and moderates.

I spent the afternoon researching cloud services and GDPR compliance with ISO/IEC 27018 in mind (ISO 2019). Lime Technologies website contains some details on GDPR compliance for Lime CRM and for now the functions remain limited or not active to test. I also read the white paper Privacy and Data Protection published by Dropbox (2017) to help further consider our responsibilities as we develop Lime CRM.

Tuesday 21.01.2020

I started today by going through my emails and reading some security advisory websites. During my time at Laurea, I attended study units on cyber security, information security and network security. The responsible lecture, Paresh Rathod (2019), recommended routine practices of checking for current alerts and ongoing security issues. Two such websites, which I intend

frequent regularly as part of my responsibilities in SESKO, Dark Reading and Hoax-Slayer present information of ongoing cyber security threats, vulnerabilities, and electronic media scams.

The Lime CRM development team have a meeting scheduled for next week and the plan was to spend almost the entire day preparing for it with the Office Manager. As I was not present during the initial kick off for the project, I needed to read through some earlier material. This included the general SaaS agreement with Lime Technologies, Lime CRM FAQ website, presentation slides from Lime Technologies and communications relating to the project. Figure 5: Hierarchy of SESKOs expert groups is a presentation created by our Development Manager to help aid Lime Technologies in understanding the relationship mapping for actors in electro-technical committees and workgroups. This hierarchy was delivered to assist with the development of a database logic for Lime CRM and gives examples which are used internally for standardization group management. It was necessary to have a meeting with our Development Manager to fully understand how this hierarchy works with the current internal directory system titled OKSU and how we hope to develop Lime CRM. The meeting took the remainder of the day and gave me the opportunity to gain valuable knowledge of the expectations and common practices.

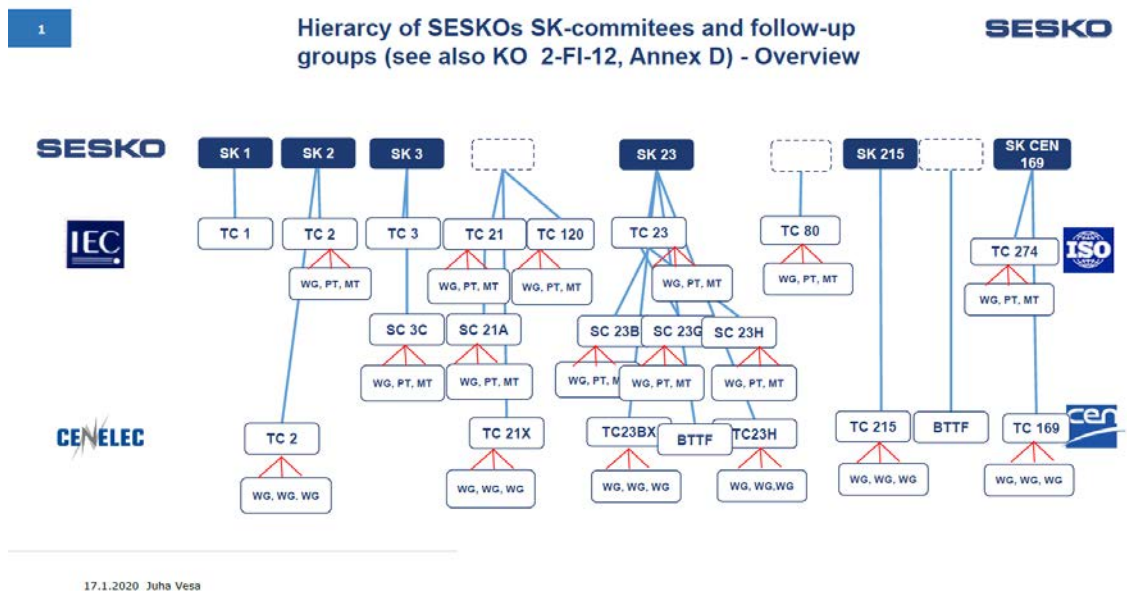


Figure 5: Hierarchy of SESKOs expert groups

Wednesday 22.01.2020

Today started off a bit different to the usual routine. I still went to the office in the morning at my usual time, however after briefly checking my emails and reading some daily notices I

left the office to visit Finlandia Hall. Along with two of my colleagues, we toured the facilities as a possible location to host SESKO's 55-year anniversary later this year. We were met by a sales manager and restaurant representative to discuss the possibilities of using banquet facilities. My role was that of a quiet observer, gaining a better understanding of operational procedures and offering comments only on technical requirements for the event.

After lunch, and back at the office, I worked with our business controller to familiarize with our electronic financial management software, Procountor Financials. While not one of my main responsibilities, it will be necessary to understand all services and systems which SESKO utilizes later during my diary thesis when I begin to create the comprehensive ITAM project.

My afternoon was open, so I decided to begin investigating an ongoing issue which has affected a few of the company laptops. Currently, one laptop is experiencing some difficulties synchronizing with our file server and early examination indicates there may be a resolution found in our registry settings for policy management. For now, though, as I have limited access rights within the company, I am restricted to only preliminary research and Google results on the subject. I hope to have a meeting later in the week with one of the IT Administrators.

I took some time before calling it a day to start preparing my information gathering tool, Microsoft OneNote, to better orientate task scheduling and information after discussing development topics with the Managing Director and Group Managers.

Thursday 23.01.2020

This morning I started by addressing one of the minor security concerns at the office which also goes under my ITAM. Due to discussions and observations made, it was noticed that all employees were required to send print outs to the same multifunctional printer which is in an unrestricted location. SESKO operates in a shared office working environment with other associations and organisations and as such not all information should be sent to the mentioned printer. According to the Personal Data Act the controller's duty of care would need to be considered and motivated me to request a new printer to be purchased for the Business Controller (Finland 1999). I took this opportunity to also make some modifications to the workspace and better manage the cables to ensure they were not overloading the extension cords.

After lunch I spent some more time researching file extension limitation for the Microsoft Windows 10 operating system in relation to registry editor and edit group policy tools to ensure I was refamiliarized. I have some previous experience with these management tools, however as it was several years ago since I last needed to work with them. Before proceeding, I referenced the Microsoft Docs library for detailed guidance on Group Policy Overview and configuration settings (Microsoft 2016). This proved useful and gave me a starting point.

The afternoon was spent in discussion with our Office Manager on the Lime CRM administration and planning phase to help shape the project and raise my awareness of what would be needed from the system later.

Friday 24.01.2020

Today was heavily scheduled with meetings, so I was prepared not to have much time for other tasks. As part of my orientation towards being a Group Manager Assistant, it was important that my induction took place early on during my new contract. I will additionally gain valuable knowledge for my projects and ITAM responsibility.

The workday started with a guidance meeting by our Development Manager on the role and responsibilities of being a Group Manager for the technical committees on a national level and international level. He presented some material which he typically uses during educational events at universities for engineering students, providing example references on how these play a part in his job and that of the other Group Managers. We discussed the renewable energies and future energy systems standardization writing groups, as a reference point, due to the importance of the approaching fair at Jyväskylä which I will be required to attend.

I was asked to prepare an informational diagram, in the form of PowerPoint presentations, on the subject to help improve my understanding on how the different committees and working groups are managed. One example from these can be seen in Figure 6: Informational diagram. This presentation will be used, in both Finnish and English, during the fair at SESKO's booth.

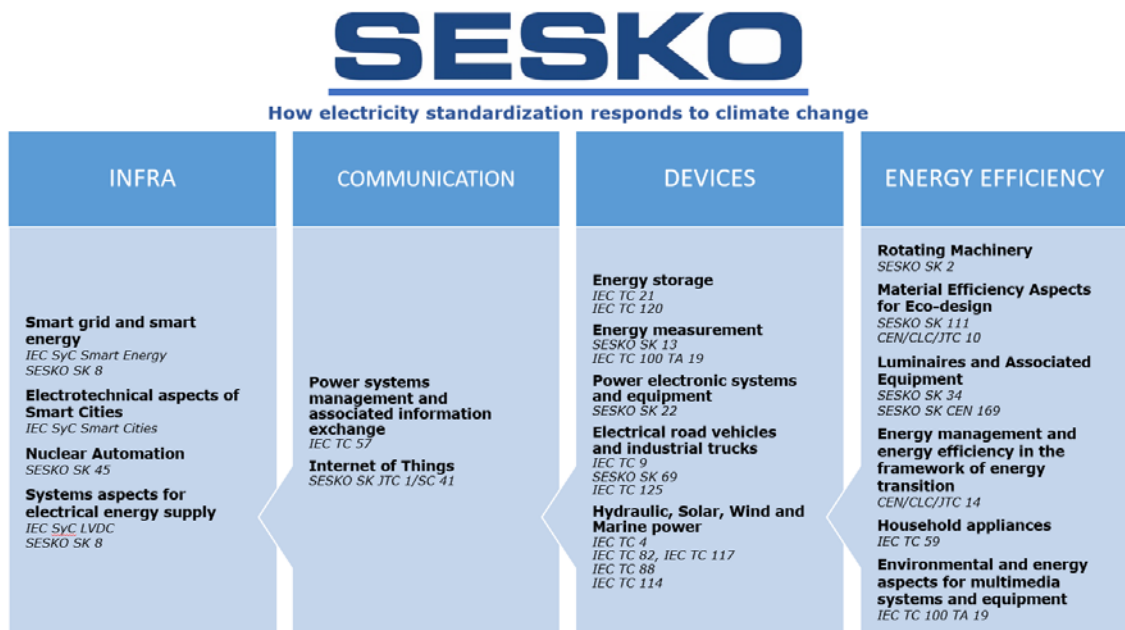


Figure 6: Informational diagram

I attended a meeting with the Managing Director and ICT Manager. The meeting was related to the issue I began investigating on Wednesday this week, whereby I would learn what has taken place so far, to stem the curve, and agree on how to proceed. I was informed that for now I was not required to act, only provide support, and research the subject further when time allowed.

In the afternoon, I took charge of my first development task as Group Manager Assistant and created a communication channel using the office communication tool Slack to help improve remote work abilities and reduce the number of emails currently in circulation. This is only a pilot program to test the accessibility and usability for a sample group of employees. Three of my co-workers agreed to install the software and I created a cloud workspace for the pilot. I have low expectations though for the coming weeks, as most people will be out of the office next week for the fair Sähkö Valo Tele AV Exhibition in Jyväskylä and the following week sees the Finnish winter holidays. It is my intention to monitor usage and revisit the subject later to consider the viability of such a tool for the organisation.

Week 1: Summary

Overall, I am quite happy with the level of involvement I have had during this week. Following a recommended approach by Buchanan (2013), I was able to begin acquiring knowledge with some limited access control to existing systems and begin the ITAM project early on for my thesis. My prior work experience with SESKO aided me greatly in this as I was working mainly with the Managing Director who demonstrated the company systems and services on multiple occasions. My earlier education in software development and graphical user interface design aided me in quickly getting involved with the Lime CRM project and I feel I was able to contribute this week with some definitions after meeting with the project team and discussing things further.

I felt I was given plenty of breathing space to learn my new role within the organisation, however there were a few issues with the collection of information due to limited access to on-site IT infrastructure. Additionally, the employees who had access were unavailable and I am a bit concerned if this could become an ongoing issue. However, during this contract period, I should expect to have limited access due to the nature of my temporary employment.

The reason to implement a communication tool so early during the diary thesis project was twofold. First being that I was aware of the coming weeks having limited people present at the office and it was necessary to install software and provide some basic guidance before they were unavailable. This could not be done remotely due to the lack of such communication tools present earlier. Second, I needed to have some information collected before the next monthly office meeting on the 12th of February to present as a proposal for future development. Setting up the Slack workspace during my first week would allow for three full weeks

of user interaction to report on. As I was familiar with Slack, and had created such workspaces before, I feel I did not rush this task. I implemented a basic layout with only a small selection of channels to limit confusion, as can be seen in the snippet Figure 7: Slack workspace layout for SESKO.

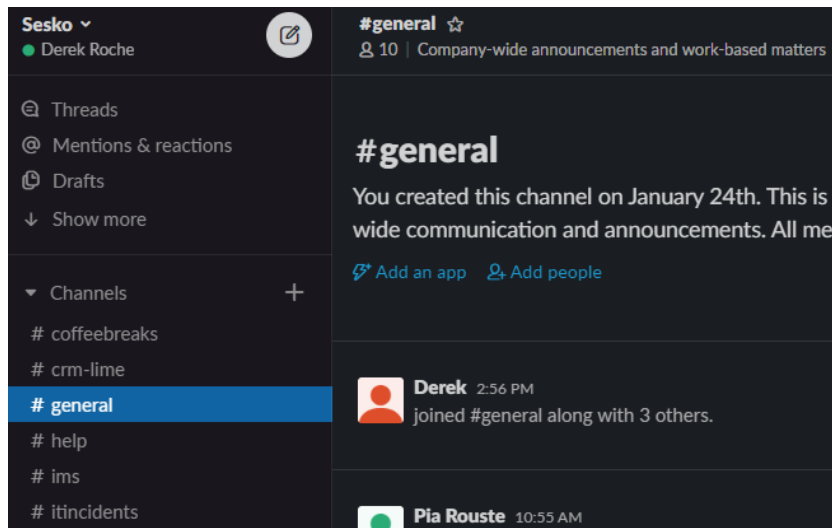


Figure 7: Slack workspace layout for SESKO

I believe my decision to investigate some of the IT issues was too premature. According to Weidman (2014, 114), information gathering is essential to be able to perform an accurate analysis of the system environment. After discussing the area of IT Administrators in greater detail on Friday, I gained a better understanding of how tasks are managed currently and feel it may take much longer than I originally had hoped to gain sufficient access rights to complete all my tasks. The lack of a formal ticketing structure, outside of communication via email concerns me as there was no identification for ongoing issues. I am however confident that with more co-operation I will be included in more discussions and able to complete my tasks on time.

Perhaps the most important lesson I have learned during the first week is the willingness and positive attitude of my colleagues to provide information and guidance towards current practices and appreciation of standardization processes in relation to the electrotechnical field. There is great value to be taken from the morning coffee break also, where information of on-going issues and committee meetings is shared openly, and all questions are welcomed. I would hope to use those opportunities in the future to get better insights into the Group Manager role and how being an assistant should play out.

There is a need for further attention to be made towards the development of my task list as quite often there is a need for my involvement in urgent matters around the office which can

be a disruption to my bigger projects. I will need to study this further and agree on an implementation method.

3.2 Week 2: Project development and orientation

Week two presents an opportunity to better understanding SESKO project development processes, as the Lime CRM development team will meet as the first phase begin to take shape. I also expect to spend quite much of my time preparing for next week, as there are various tasks assigned to me for the fair in Jyväskylä. I have some preparatory reading to do also in order to participate for the first time in a national technical committee meeting for the writing of electrotechnical standards.

My access is open to the International Electrotechnical Commission expert management system along with the European Committee for Electrotechnical Standardization collaboration tool for the purpose of participation and knowledge acquisition with regards to the national technical committee's I have joined for during this internship period. This will also require some time over the coming weeks to understand the functions.

Additionally, I have allocated some time during the week for IT tasks and issues relating to gathering information for the ITAM.

Monday 27.01.2020

Upon arriving in the morning, I had received some emails from the ICT Manager relating to the ongoing issue we were having associating to file synchronization with our local file server. I learned that the problem was not yet resolved, and I was asked to test out some backup software and continue to investigate the issue. Armed with further information, from the email chain, I decided to allocate further time for this week. For referencing purposed in this diary thesis, I will refer to this IT issue as S-ticket1.

I also continued to develop the new Slack workspace and investigate if any add-ons application software would be valuable for the test users. I discussed this further with the Office Manager and it was decided not to proceed further and allow a grace period for adjustment.

The afternoon Lime CRM development meeting was mainly an information gathering session for the team involved, whereby the Office Manager informed all what the current situation was with phase 1. There were some differing opinions as to when it was possible to roll out this part of the project, where the Development Manager expressed some doubt at having this prepared in a short period based on his prior experience. The Office Manager made mention of the extra resources available in comparison to earlier similar projects, my involvement being one factor and the current consulting company's extensive experience of their own product being the other. The meeting was quite jovial and open for development ideas. I felt my

opinion was considered and while I am still only getting to terms with the Lime CRM, my expertise appreciated.

Tuesday 28.01.2020

My morning was particularly different to the norm today as I was required to attend an engagement which I had agreed upon before starting my diary thesis project. An invitation to attend a morning coffee discussion group to raise awareness towards women invested in a career in cyber security, under the hashtag #women4cyber. The Managing Director of SESKO wish for me to gather information and consider future involvement, keeping our organisations mission and goals in mind. The event was attended by motivated individuals, experts in their field, who were willing to discuss the promotion of networking events and seminars. Once back at the office, I prepared a report and emailed it to our Managing Director for her review.

The afternoon was devoted to IT related issues. I completed an assigned task to test the backup software, BackupChain. More information regarding the software can be found from the website: <http://backupchain.com/en/backupchain/>. I began by reading required sections of the BackupChain v4 User Guide and making note of important chapters relating to the creation of images and automation (FastNeuron Inc. 2020). I also noted the possibility of using VM VirtualBox backup and other VM platforms for implementation testing, which is a tool I used for vulnerability testing during my studies and something I plan to utilize at SESKO.

The tests included different setups for creating images and clones of existing systems and took a considerable length of time. I utilized an external hard drive to help with storage management. I decided to start preparing my virtual machine working environment while the backup process was ongoing. The procedure was fresh in my mind as I had produced instructional videos as part of my studies in Laurea (Roche 2019). The process took approximately 3 hours and resulted in a successful testing environment with Kali Linux virtual operating system. In the background the BackupChain successfully created an image for S-ticket1.

Wednesday 29.01.2020

I was informed by one of the Group Managers, in the morning, that I would be participating in the national technical committee for Electrical Equipment in Medical Practice on the 11th of February as an observer for educational purposes. SESKO's national committee SK 62 is responsible for Finland's participation in and the monitoring of European and international standardization of electro-medical equipment and supplies. I received some documentation from my colleague as recommended reading and prepared some notes for future research.

The morning was spent writing emails for reporting to different responsible persons within SESKO for the tasks I had been working on over the past two days. Firstly, I discussed with the

Office Manager with regards to a follow-up email for the Lime CRM developer. It was necessary to consider all input from the development team and propose an action plan for the developer to implement. Additionally, I wrote an after-action report for the ICT Manager to inform what was successful the day before and report on software performance and total time run.

My afternoon was open, so I decided to focus on clearing my desk of all small pending IT related tasks. These included the preparation of a spare laptop for the trade fair next week. The only requirement was to verify all security updates were installed and perform a quick scan using the virus protection tool, F-Secure.

Before leaving the office, took a little time to install a local printer for the Business Controller in her office. This was ordered last Thursday to help increase security for private information while printing and mitigate any future risks.

Thursday 30.01.2020

During the morning coffee we discussed in more detail the upcoming trade fair next week and my attendance. Afterwards, I had the opportunity to question the Development Manager more as to the importance of SESKO's involvement and the level of commitment shown from the association. It was explained that knowledgeable representation and participation was essential, and it was expected by the member communities of SESKO and that those manning the stand would need to be prepared for all situations and visitors. I also discussed which Power-Point presentations would need to be included in addition to what I had already received and loaded onto the laptop. I took this opportunity to suggest I help create some of the material to familiarise myself before next week. It was decided that all material would be sent to me and I would finalize preparation of the presentations and other material for the trade fair. I allocated time for tomorrow and early next week to ensure all would be prepared on time.

In the afternoon, a question of visitor access control was discussed. SESKO relocated to the new office building mid-2019 and the housing manager has made available a security access pass system in the lobby managed by the company System. They describe the product System Respa X is a slim and modern self-service kiosk that handles both sign-in and sign-out with all the needed accessories (System 2018). A security decision was being considered regarding visitor registration and implementation of the new electronic system in the lobby. This was placed on the agenda for the next monthly office meeting by the Office Manager. We discussed the possible training to be arranged to introduce the terminal system to all Sesko staff members, and a security log system which would need to be designed to import the data, once the file format is more familiar. Approval for the implementation would be made after the 12th of February.

Friday 31.01.2020

I had three meetings scheduled for the early part of the day. The first was a brief introduction as to the roles and responsibilities of Group Managers, in order to clarify my understanding of the job title. The Development Manager conducted a presentation as a part of my induction training and answered questions which I had considered over the past two weeks. The meeting was very informal overall, and no questions were too small.

My second meeting was a follow-up with the Managing Director and ICT Manager regarding S-ticket1 and a review of actions taken. It was required due to the Winter holiday period in Finland approaching and the issue needing to be reassigned to me and another individual who was familiar with the issue.

The final meeting for week two was alone with the Manager Director with regards to the morning coffee I had attended earlier this week under the working title #women4cyber. My report was discussed further, and the Managing Director decided I was to follow the groups progress in the future, however as it was not directly related to electrotechnical standardization SESKO was not in the right place to orientate the working group. Additionally, any future requests for support would be considered by her and discussed.

I had a few hours open in the afternoon before calling it a day, so I decided to begin working on some of the presentation material which was required for the trade fair next week. It was necessary to make a small modification to the SESKO PowerPoint template first, however, as there was recently an update to the official company logo which had not yet been added.

Week 2: Summary

Most importantly, this week I feel I was able to upskill my project management knowledge within the company and get a feel for how the ongoing project length can be from the Office Manager and Development Manager. By adhering to Dawson's (2011, 116) requirements capture, I have been able to improve my knowledge of the problem SESKO has with customer information, view the user understanding, consider a definition of the requirements, create a requirements specification and propose a functional specification. I was warmly welcomed into the Lime CRM project, which had been going on for some months before I was able to return to work in the middle of January, and I felt my input was valued and considered as we move forward. The meetings with the development teams are productive and SESKO benefits greatly from having individuals with varying backgrounds and a high skill level.

This week I saw myself get a good grasp of what kind of ICT requirements there are throughout the office, by handling some minor tasks and getting more familiar with one major. The

group who currently handle all IT related tickets are quite tightknit and have a long-established means of communicating ongoing issues via email only. The lack of formal reporting and record keeping concerns me for transparency purposes, however I am assured that all information has been recorded through email. According to Bosworth et al (2014, 106), insider threat should be an ongoing consideration for organisations and data loss prevention efforts employed. I noticed some areas which would need future development and was happy to hear that my experience and qualification would be considered as we formalise the working relationship.

My induction process took a big step forward this week, on behalf of the Development Manager, with regards to Group Manager roles and responsibilities over the technical committees. I feel I was able to put a stronger relationship between the two positions which I am fulfilling during my internship, that being in information security and assisting Group Managers. Having a clearer understanding of the type of systems and services, which are used on a regular basis, helps to better define where I will need to focus as the weeks go on.

3.3 Week 3: Sähkömessut 2020

I efforts for this week to be committed to the Group Manager Assistant role within the organisation because of the importance of the Sähkö Valo Tele AV Exhibition. The event takes place every second year and according to the organiser's website is expected to attract over 14,000 electrical experts in Finland (Jyväskylän Messut 2020). The early part of the week I will need to assist with preparing some material and equipment for the fair stand. While attending, on Thursday and Friday, I intend to observe and benefit from the experience of my colleagues, as well as browse the fair to increase my knowledge and awareness in the field.

Monday 03.02.2020

Monday morning had a bit of a false start as I experienced quite a problem as when I arrived at the office. The door to my room would not open. I share the workspace with the Office Manager, and she was unable to open the door also. After asking for assistance at the lobby, I learned that the same issue has occurred before, on more than one occasion. I followed up the issue with the maintenance contractor to check if there was some concern for SESKO. The office building which SESKO hires the space is utilizing a COTAG access control in conjunction with an electronic door handle access control. For security reasons, I cannot include specifics here in this document. I compiled a record of all information for future reference, however as the issue is being investigated already, it was not necessary to act further.

While unable to access my laptop, I was able to continue working with the Office Manager by assisting her with some of her decisions. We discussed some of the materials which would be

purchased for the office, including soundproofing for meeting rooms and possible improvements for conferencing hardware.

Later in the day, I regained access to my room and was able to work on my laptop. I carefully documented what I had learned earlier in the morning from the maintenance personnel who assisted with decoding the COTAG access control. After which, I continued preparing the equipment and hardware which would be sent to Jyväskylä for the trade fair this week.

Tuesday 04.02.2020

The morning was a buzz around the office as the Group Managers needed to finalize their documentation and the Office Manager packed up all the handout material for the trade fair. My role as assistant became very apparent as it was necessary to check through all presentations and ensure the systems would run smoothly for tomorrow. I would not be there on the first day to set things up, so I briefed my colleague who would take responsibility. I made backups of all files, which I would take with me on Thursday should something go wrong.

I took the opportunity to improvise somewhat also and created announcement posters concerning the guest speaker and QR code business cards for all SESKO employees attending the fair to be placed behind their lanyard identity cards. The example QR code in Figure 8 was generated using a free tool by Google (2013).



Figure 8: Customer Service QR code (Google 2013)

Wednesday 05.02.2020

Today turned out to be noticeably quiet around the office as most of my colleagues already left for the trade fair. My morning was spent in discussion with the Development Manager regarding Sesko IT systems and best practices. Being privy to all information, he also wanted to brief me on future possible implementations and practicalities due to my involvement in some development projects during this period of employment. The discussion was informal, and I noticed a willingness for my opinion to be expressed.

I had only one task to handle today, which had been assigned to me by the Office Manager before she departed for the fair. SESKO utilizes Arter IMS for process management and some basic documentation distribution, however the system has additional integrated tools for generating reports for information collection and risk assessments, which could be used for incident management amongst other things. Until now, this has not been explored in detail and I was to review all material for possible implementation. I found the information collection tool in IMS to be quite basic for now, it would require further development through the administration panel. I intend to request for access rights later once I am more familiar.

My afternoon was spent in a meeting with the Managing Director to discuss my progress and further development with regards to becoming a member of the office community. Overall, the discussion was very productive, and it was felt that I have integrated well with my new role in SESKO. I was informed that others have expressed approval at my abilities and approach.

Thursday 06.02.2020 & Friday 07.02.2020

I started off at 06:00 on Thursday to travel north by train for the trade fair in Jyväskylä. I went prepared and had downloaded an IEC White Paper titled: IoT 2020: Smart and secure IoT platform to keep me company (IEC 2016). The subject covered was related to the main topics of the trade fair.

While in attendance, both Thursday and Friday, I viewed the different stands and mingled with different organisations collecting information about the kind of industrial interests. I also discussed SESKO's involvement within electrotechnical standardization with some electro-technical experts visiting the SESKO stand. I assisted my colleagues with minor tasks during the trade fair and helped our guest presenter to prepare for her talk. Nevertheless, I had no official role, other than to observe and learn.

Week 3: summary

The week felt as though it went a little too fast because of my travels, though I did get to spend plenty of time with my colleagues and had an opportunity to get to know the people a little better. As this thesis is concerning personal development, I considered Piers (2018, 84)

chapter on self-development and communication to help better understand what I hoped to gain from my career transition. Piers' tips on self-development, self-review, good management of time, developing a calm mind, communing with great minds, building up courage and humility and gratitude, provided me with some reflective points while learning to work with my new colleagues.

The community feeling with SESKO is very welcoming and despite having worked with many of them for years as a consultant earlier, after this week I began to get a better sense of the organisation. My main development projects were put aside for the time being, however, this was not an issue as the opportunity to participate in the trade fair was rewarding and a valuable learning experience for my role as Group Manager Assistant.

3.4 Week 4: The week of meetings

This week is loaded with meetings and planning discussions for all ongoing projects in SESKO as well as orientation discussions for my development. I have 6 long meetings taking place throughout the week and I am not expecting to have much chance to focus greatly on other tasks outside of these. Additionally, two of the scheduled meetings will be in Finnish, which is not my first language, and I expect to be quite tired afterwards as it is of the utmost importance that I gather as much information during these times.

I have decided, starting this week, to better establish my recommended reading for each morning. This is to ensure I am aware of key topics in the news regarding the recent health scare, now official named COVID-19, and some cyber security issues associated with an increase in remote work. I have selected the following websites for reading:

- Finnish institute for health and welfare: Coronavirus COVID-19 - Latest Updates (THL 2020).
- World Health Organization: Coronavirus disease situation reports (WHO 2020).
- Dark Reading website for general security concerns and threats relating to information security (2020).

Monday 10.02.2020

As described in the plan for this week, I spent the early morning reading current news and events relating to my security concerns for the company. The reason for this is due to SESKO's Group Managers and Managing Director traveling frequently for international technical committees and responsibilities as the Finnish national representation for electrotechnical standardization. For now, I am only monitoring the situation and gathering information should there be locations of interest affected by the viral outbreak. Brussels is of concern to SESKO

as the CEN-CENELEC Management Centre headquarters is located there and hosts many of these meetings.

My first meeting for this week was for the Lime CRM development. This was also my first time to meet with the lead programmer from Lime Technologies in person. My role was quite passive during this meeting as the main items on the agenda concerned categorising technical committees for the system which is the responsibility of the Development Manager.

In the afternoon I participated in another meeting with the Group Manager for IoT devices and guests from NIXU Corporation. The question from the NIXU representatives was concerning IEC conformity assessment schemes for electrotechnical equipment and components certification (IECEE) and as they are not currently involved with any technical committees an introductory presentation and definition was given on SESKO's behalf and some discussion followed. I found the meeting to be informative and it helped introduce me to some of the induction process for new member experts. It was necessary for me to read up on IECEE after the meeting from the IEC website to gain a better understanding.

Tuesday 11.02.2020

Today started off quite slow as I was unable to handle other tasks due to the entire day being reserved for a technical committee meeting. Participation in such meetings is essential to develop my knowledge and understand as to how standards are administrated by the technical experts. Today's technical committee has the title SK 62 and concerns electrical equipment in medical practice and participants represent interested parties from Finnish industries. Additionally, this is included in my job description as it allows me to gain practical knowledge for development projects which are orientated towards the Group Managers daily tasks. I also took this opportunity to evaluate the current communication software which SESKO is using, GoToMeetings, and observe how this tool is used with trusted experts in attendance both in person and via the online web meeting software.

Later in the afternoon, once my brain stopped hurting from having to use Finnish for the technical committee meeting, I had a follow-up meeting with the Group Manager overseeing SK 62. I had compiled some notes during the meeting, which I was able to address openly and correct any misunderstandings I had. These concerned the use of specific terminology used in the writing of standards and understanding the use of security levels. I researched the following references for further reading as I have a previous career in language consultancy and because of my study focus in Laurea:

IEC (2016) provides guidelines for verbal forms for expressions of provisions can be found on their website. All national representatives, like SESKO, are recommended to adhere to these guidelines and as with today's meeting this can be a reason for discussion.

NIST publication: Security Assurance Levels (2016) helps to define what must be considered in the implementation of electrotechnical standards for devices which can communicate or be communicated to. While I have become more familiar with the Open Systems Interconnection (OSI) model during my studies, this provided me a baseline understanding to be able to further my understanding in the future should I be required.

Wednesday 12.02.2020

Everyone was present for the monthly office meeting today, and there was a nice easier start as it was scheduled to begin at 10:00. My morning routine of reading information from my predetermined websites allowed me to be better prepared for any questions regarding the health scare and its influence on future travel plans. Also, I enjoyed a morning coffee discussion with my colleagues where they spoke freely about the importance of having days like this where everyone is present. SESKO's lack of certain communication platforms still concern me, however, this is because of having an outside perspective and demonstrated a need to familiarize with the way of working as an internal employee for the organisation. The atmosphere on days when we have a monthly office meeting seem to be generally relaxed as there is little time for other issues to be handled and all attention is focused on the same topics.

As I mentioned in week 1, internal meetings take place in Finnish and for me this can be quite a challenge. I have however started to be more familiar with the different dialects and find that I can follow the subjects much closer as they are interconnected with my role and responsibilities during this period.

COVID-19 was raised during the meeting, and I was asked to brief the office on what I had observed. As the situation has not yet begun to affect the locations which I have under observation, it was decided to only continue following the situation for now. It was mentioned that SESKO should adhere to the general Corona Virus Guidelines, issued by IEC's General Secretary & CEO on the 30th of January, to reduce exposure and transmission by following the recommendations given by the WHO (Vreeswijk 2020).

I was assigned to work with small teams on two items on the agenda for the next monthly office meeting. These are, updating the collection of information for travel expenses and audit of the office buildings emergency plan. Additionally, I was asked to gather further detail regarding the System Respa X visitor access control system, mentioned in my diary on Thursday the 30.01.2020. There were questions over integration with our current local exchange server for room bookings, after action report formats and their compatibility and the cost of using the system. I will follow up on these tasks and report back my findings for the next monthly office meeting.

Thursday 13.02.2020

Today I had the time to focus on my own responsibilities throughout the day, without meetings for a change. It was nice to have a respite from sitting in conference rooms. I started off by going reviewing some cybersecurity news from Dark Reading website to keep my knowledge current and then the current situation reports from the WHO and THL. No actionable information was necessary.

I followed up on some improvements with the Lime CRM system, whereby we agreed on grouping types for different project groups. I spent some time testing with the system and testing out the updates made by the leader developer. As all seemed to work as intended, I discussed these changes further with our Development Manager and agreed the decision to restrict entries by using predetermined drop-down lists was an improvement. This was according to my recommendations and proposal from the 20th of January.

After lunch, the Office Manager briefed me on the future development hopes for Arter IMS with regards to information collection. The training she attended last week, organised by Arter, provided the necessary definition for us to proceed further and it was agreed I would create a template to experiment with over the coming weeks. We would then present this at the next monthly office meeting and decide how to proceed.

I took part in a discussion in the afternoon with regards to the access control system in the lobby for visitors. We spoke with the lobby receptionist about how the system is operated and who has access to the information collected. It was learned that Microsoft Excel format reports are generated and that these would be limited to only the receptionist, service provider administration and help desk staff and the appointed person within SESKO. Information on pricing was sent to our Business Controller and she agreed to compile a report for the next monthly office meeting. I would provide additional information, when requested.

Friday 14.02.2020

Today was quite an easy morning, I started off by checking my emails and the recommended reading websites. The morning coffee discussion was focused towards SESKO's remote work capabilities and I was deeply interested as it was a prelude to my first meeting for today. We discussed different experiences and possibilities for new solutions in the workplace. The international electrotechnical standardization bodies utilize different communication tools than SESKO and it was discussed if we should consider moving to these platforms in the future. Some were for and some against, however I noticed those against were mainly concerned with the idea of change in general as opposed to different software tool.

Afterwards, I had a meeting with two of our Group Managers regarding participation in technical committee meetings, both physically and remotely attended. I was briefed in more detail about common practices and on how each of the Group Managers bring their own flavour

with regards to functioning as the secretary for meetings. The meeting was informal and the software solution, GoToMeeting, which SESKO utilizes was demonstrated. I feel my questions were warmly welcomed by both of my colleagues and feedback of my experience as a business communications consultant was encouraged. I hope to play an important role in the future at SESKO in this area, in a way that all Group Managers see me as an asset for the organization.

Most of my afternoon was spent working with the Arter IMS reporting template. I was able to build a report to demonstrate the usefulness. Figure 9: Arter IMS Employee Incident Report is a screenshot of the trial template which I hope to use for development purposes and discuss further with the Office Manager. I agreed with various colleagues that they would test out the template by filling in different incidents which they have experiences over the past few weeks. This would allow me to problem solve some of the input issues experienced and work on some improvements. A total of 6 different reports were completed using the template and feedback was overall positive. Most notable was the lack of predetermined selections for the incident category. I noted this and plan to follow up with the administrator of Arter IMS.

The screenshot shows the Arter IMS Employee Incident Report form. The form is divided into two main sections: 'Report information' and 'Details'. The 'Report information' section includes fields for 'Title', 'Responsible user or group' (with a lock icon and text 'Responsible locked: Roche Derek'), 'Deadline' (with radio buttons for 'Deadline not set' and 'Set deadline'), and 'Marked as confidential' (with a checkbox). The 'Details' section includes fields for 'Date of the incident*' (with a calendar icon), 'Time of the incident' (with a time picker), 'Employee name' (with a dropdown menu), 'Who was involved in the incident?' (with a text input), 'What was being performed at the time of the incident?' (with a large text area), 'Was there a physical injury?' (with radio buttons for 'Yes' and 'No'), 'Was there damage to property?' (with radio buttons for 'Yes' and 'No'), and 'Description' (with a large text area). At the bottom of the form, there is an 'Attachments' section with a pencil icon and the text 'No links'. Below the form are three buttons: 'Save as draft' (orange), 'Save and send to responsible' (green), and 'Cancel' (red).

Figure 9: Arter IMS Employee Incident Report

Week 4: Summary

The week of meetings turned out to be quite a nice week for me, in that I was able to gain more experience and knowledge on the assigned responsibilities and tasks for the thesis period and also better understand the dual role which I have been given. Being an assistant in two different areas required me to consider things carefully when it comes to allocation of time for both areas and while I hope to do my best in all situations, I must be realistic also. I recall reading an article by Zac Carman some time ago titled "Stop Wearing So Many Hats and Watch Your Productivity Soar". In this, Carman (2017) speaks about multitasking different roles within an organisation being more of a distraction and how knowing when to take off certain 'hats' is vital to remain productive. I try to keep both of my assistant roles active when participating in meetings or discussions though, as I never know when a random event may occur, and it can present a possibility for development. Warren Buffet is quoted as saying, during an interview with Bill Gates and Charlie Rose, having too tight a schedule disallows random events taking place and presents a possibility of missed opportunities (Rose 2017). This relaxed approach seems to serve me well as the position I hold in SESKO has not existed earlier and my job definition includes tasks which are a combination of security of ICT concerns and the needs of Group Managers.

The kind of meetings which took place this week are also a good example of what requirements there are for a professional association to function correctly. That being for the betterment of the member communities of the association and for the furtherance of the Finnish electrotechnical industry. Meetings are one of the most productive tools available for a small organisation like SESKO which represents such a large business sector. I have noted how the employees at SESKO work quite independently with a huge amount of trust in their ability to act as an authority in their own technical committees. As a result, I have come to understand more this week how these monthly office meetings are a means to share information with both the leadership and each other to improve common practices and ensure decision-making is well orientated.

3.5 Week 5: IT research and development

In contrast to last week, this week I intend to work closely with SESKO's IT environment and the two individuals who administrate over all devices and systems. I will be gathering information for the ITAM as well as troubleshooting some ongoing issues for some of my colleagues. I aim to expose some of the vulnerabilities this week and be able to improve upon the incident reporting template on Arter IMS. Additionally, I hope to develop a more formal reporting system for my areas of my work. To start with I aim to prepare a document as an example for reporting on procedures in resolving IT incidents for future reference.

Monday 17.02.2020

I started off today by reassessing the different websites which I use for information gathering in the morning. While the current websites, THL, WHO and Dark Reading, suffice, I can see a need for more international information specific to the ongoing health scare relating to COVID-19. I began by reviewing all travel plans forthcoming within the organisation and mapped out all locations within a OneNote page. I then researched local health care administrations for each location and linked the websites to my OneNote page. This provided me with a quick reference to each area, allowing me to be better prepared for when concerns are raised. It also came to my attention, via my Google searches, of an interactive mapping service developed by ArcGIS Online commissioned by the Center for Systems Science and Engineering at Johns Hopkins University (2020). Here, more detailed information was being updated to help indicate the spread of the virus and infection statistics. I decided to discuss this effort further with the Managing Director and see if she decides I should continue to do so.

As the early morning was quite heavy, subject wise, I decided to take a short break and discuss something completely different with the Development Manager to refocus my mind. He was happy to brief me on an IEC project to introduce eXtensible Markup Language (XML) formatting and what it would mean for the future of standards writing. I was informed that I should attend a webinar, hosted by CENELEC later this week, to receive an introduction.

In the afternoon I had a meeting with the Managing Director to discuss my progress. I demonstrated the Arter IMS Employee Incident Report and discussed my participation in SK 62. She was satisfied with my level of involvement overall and informed me that I would be needed later in the week for some documentation checking and discussion of confidential agreements. The reason was to gain a better understanding of the different stakeholders for SESKO and our level of commitment. It was also agreed that I should continue to monitor the COVID-19 situation.

Tuesday 18.02.2020

I had a short day at the office today as after lunch I needed to attend a class at Laurea UAS to present my thesis plan. This was the earliest possible date available to me and as such has allowed plenty of time to prepare. In the morning, over the coffee break, I showed the presentation to a few colleagues to get their opinions. It was nice to get their point of view for the material, however as the file was already submitted, I did not take any feedback with the intent to change things. Some of my colleagues mentioned that it was interesting to see in presentation format how my role in SESKO has changed significantly from the original job description.

I spent a little time in the morning making a few updates on SESKO's website. While working for SESKO as an external consultant, I was involved in development of all English material for the website. However, I did not have administrator access rights to the portal before. The

task was simple, removal of no longer current information, however it was valuable to gain a better understanding of the platform and consider user access rights for the ITAM.

Another small task which I was able to handle in the morning was relating to the local file server at our office. S-ticket1 is still an ongoing issue due to lack of resources to solve this. I conducted some auditing of group policies in preparation for tomorrow's work, where we hope to resolve this issue finally. I found some absent information regarding group policies being administrated and forwarded this to one of the IT Administrators for investigation.

I took an early lunch and left the office before midday. SESKO operates flexible working hours and I have already saved up enough hours to cover my absence. It was great to revisit the campus in Leppävaara, as I had spent the past year and a half there every day. A few of my classmates had decided to attend the thesis class and I had the opportunity to catch up.

Wednesday 19.02.2020

Today turned out to be all about understanding and less about doing. The morning started by a discussion with the Development Manager on understanding the standardization of multi-functional devices/appliances. By this, I am referring to devices which could be categorised under more than one main function yet need to adhere to a certain standardization technical committees' effort. An example would be a kitchen appliance containing components which fall under different standards, e.g. a refrigeration unit having a lightning system to illuminate the inside. There are many different technical committees which specialise in the different components, which may be contained within one device, however as the manufacturer has defined the device as a certain type, other components are not identified as the primary. My example of a refrigerator is quite simple; however, it becomes more complicated when considering items which contain internet capable components known as IoT - Internet of Things.

The Development Manager arranged time for SESKO's Group Manager responsible for ISO/IEC JTC 1 - Information Technology to introduce the Joint Technical Committee, which is where the JTC is the name comes from. According to the ISO website (2010), "ISO/IEC JTC 1 is the standards development environment where experts come together to develop worldwide Information and Communications Technology (ICT) standards for business and consumer applications". Under the advice of my colleagues, I applied to become an active member of a sub-committee to better my experience and understanding. According to the ISO website (2017), "ISO/IEC JTC-1 SC 27 Information security, cybersecurity and privacy protection scope is the development of standards for the protection of information and ICT". Doing so would enable access to information and open a new aspect to my work in SESKO. Due to this being outside of the scope of my thesis however, I have decided not to become an active participant until after the diary collection has ended.

In the afternoon I was back to work on S-ticket1, with the help of my colleague. I found a problem with the installation user account on every laptop within the organisation, whereby it was syncing with the wrong local server. I detailed my findings to my colleague so he would be able to check the server settings via a remote connection. At this time, I have yet to be appointed server administration access and as such could not proceed further. This decision is understandable, as without further training I am not familiar enough with SESKO's server room. I will participate in further work with the IT Administrators and at that time I hope to be entrusted with such access rights.

Thursday 20.02.2020

The office was quite empty this week, due to the Finnish winter holidays, and especially today as those who had been working this week were out of office for meetings all morning. I had my first taste of a silent environment at SESKO and this gave me the opportunity to catch up on some reading, and research procedural reporting. I started with Seymour Bosworth's book, Computer Security Handbook, chapter 8 on using a common language for computer security incident information (Bosworth et al 2014, 81). Bosworth describes how learning first what is commonly used to define incidents and then working towards establishing this in a report is key to producing actionable records. I have already learned from my colleagues that there is no current reporting procedure utilized, at least in a formal manner, and that all information is shared through email. For this reason, I intend to request access to some of the incident emails to analyse the choice of terminology. After familiarizing myself with the Arter IMS information collection and the limitations currently in place, I decided that proceeding with a simple Microsoft Word or Excel form first would be best.

After lunch, I worked with one of our IT Administrators on learning the common practices for laptop installation and documentation of procedures. This was valuable information as it is planned that I should participate in such work later. I spent about an hour discussing and observing, while we prepared one laptop. Company policy indicates that employee laptops are changed every three year to ensure active warranties.

This was followed by a meeting with the Managing Director to prepare material for CEN-CENELEC joint 2030 strategy questionnaire. CEN-CENELEC represent the cooperation between the European standardization organizations, CEN and CENELEC. My role, defined in the job description, was to continue to provide English consultation for such cases. Having worked with the Managing Director for almost 10 years on such documents, I have become familiar with such material. I cannot include such information in my thesis due to the confidentiality of the information.

Before finishing for the day, I joined three Group Managers to listen in on a webinar introducing Standards in XML format. This took under half an hour and was a basic introduction which

did not answer questions outside of what XML means. Having a previous education in software development, I gained little for attending.

Friday 21.02.2020

Today followed a similar routine as yesterday, the office was almost empty in the morning, there being only a couple of us present. I took the opportunity to continue working on the IT reporting templates. The templates were based on knowledge acquired from reading Bosworth's book yesterday in combination with material acquired during my studies at Laurea. The study unit Information Security Management R0319 I prepared for the ISACA's Certified Information Security Manager (CISM) training in Information Security Incident Management.

I created two templates, one in Microsoft Word (Appendix 2) and one in Microsoft Excel (Appendix 3). Appendix 2, Procedure report, gives an example situation in SESKO which was reported to me through the Arter IMS incident report I created in week 4. Appendix 3, IT Incident actions taken, is a form which can be filled out by multiple people to track an incident and actions taken. I presented these to the ICT Manager for his consideration and proposed we consider implementing such procedures in the future as it would help with record keeping.

I had a meeting again today with the Managing Director for a few hours where we review some contract papers, which I cannot disclose in my thesis. I can say however, that the information was of the utmost confidential and the level of trust in my ability to assist in this area is encouraging. Being an employee now, I am privy to further detail than before.

In addition to providing consultation, we also discuss my future career and wrote a preliminary definition of my contract should I be able to remain in SESKO after the thesis period. I was very satisfied with the discussion and while I do not know for certain yet, I feel confident in building a future here. I expressed aspirations regarding my career, and we shared a common understanding of what I could represent for SESKO.

Week 5: Summary

This week turned out just as I had hoped, and I was able to focus on the responsibilities which I feel will help develop my future within SESKO greatly. I have recognised the lack of available information for a detailed ITAM and while I have not yet set my focus towards finalizing this, the current practices have been a great motivator to proceed. I have also received great support from the top down within the organisation and for now I feel I am on the right track.

My colleagues continue to devote time and effort towards my training, and I feel welcomed by everyone at SESKO. Being a quite week, I did however feel there were times this week when I wanted to be more productive and noted the lack the access rights to accomplish more. It was a good opportunity to review my goals and consider what I was hoping to get

from my projects. According to Dawson (2011, 158) it is important to first identify how my time is being spent, then consider categories for what are being handled. Patience is the key and while I do hope to be able to contribute more in the future, I must also continue to develop my knowledge of electrotechnical standardization and the meaning of working within a professional association.

3.6 Week 6: Considering remote office capabilities

During this week I intend to improve my best practices during the early morning while it is quiet in the office. There is a growing need to monitor some travel advisory information due to the increasing concern over COVID-19 as the employees within SESKO are soon to visit some of the countries which have already had infection cases. No restrictions or guidance recommendations have been issued by the IEC or CENELEC, so for now I hope to be able to provide advisory information to the Group Managers further as I learn more about the definition of their role within the organisation.

This week sees various meetings scheduled with regards to the different systems and services utilized by SESKO and I intend to consider further the vulnerabilities with regards to business continuity and remote work capabilities.

Monday 24.02.2020

More people have chosen to work from home this week because of the health risks associated to COVID-19. It sparked a conversation with some of my colleagues on the resources of all SESKO employees to work remotely and the kind of software solutions which we currently have available. For the most part, all employees can work remotely due to the number of SaaS we are currently using. However, there are also some physical restrictions in place due to the organisation continuing to use a localised file server, local email exchange server and off-the-shelf software. This means, when not connected to the organisations physical network, some services are unavailable. In addition to this, there is also limited availability for technical support when working remotely as collaboration software not currently a requirement for all employees. The test platform operating on Slack, which I created during week 1 of this paper, was brought up and it was decided I should discuss the matter further with the Managing Director.

Afterwards, I began preparing to participate in my second national technical committee meeting which takes place next week on the 3rd of March. This concerns the SK 61, which is the national standard on safety of household and similar electrical appliances. I received the agenda for the meeting this morning and familiarized with it as much as possible. I discussed with the responsible Group Manager and agreed on a few sample documents which I will read in full beforehand. It was essential to also familiarize with the strategic business plan for IEC

TC 61 published by the secretariat on IEC's website (2019). This online document provided an overview of all actionable areas for the technical committee.

In the afternoon, I had a development discussion with the IT Administrators in relation to my IT responsibilities. The purpose of the meeting was to train me further with the current systems in use at SESKO and the development plan for the current year. Items on the agenda were, re-utilization of the now unused old local file server, optimal redistribution of local services on the three existing servers and auditing of group policies. In addition to these, we discussed the solution found for S-ticket1 and any necessary changes to other devices. I was tasked with closing this ticket and completing the work on the newly acquired laptop which I started last Thursday.

Both of my colleagues warmly welcomed me into the fold, with regards to assisting in the future, and the meeting was very productive. The situation was very enjoyable for me professionally, as it was important to have colleagues who are very capable individuals and I hope to work closely with them in the future.

During the IT meeting, there was some discussion with regards to possible new projects to move SESKO's systems into a cloud-based environment, however there was some opposition and it was mentioned that the budget for 2020 did not account for such investments.

Tuesday 25.02.2020

My morning was spent reading through some updates on the COVID-19 situation and checking if any of the locations which SESKO employees need to travel have indicated infections yet. For now, the infections do not seem to be of concern for any travel plans, however Europe has started to see a rise in a few countries. Most notably in Italy, which has raised some concerns as it is one of the active participants for IEC and CENELEC meetings. I made a note to follow up on this with the Managing Director and check if further guidelines have been considered by IEC or CENELEC.

I decided that today was going to be all about further developing the IT ticketing system and the incident management reports through Arter IMS. I closed S-ticket1, as we resolved this issue by applying an update to the group policy management and followed up by finishing the installation of the Managing Director's new laptop. The work was quite routine, installation of software and restoration of work related files from the redirection folder. All work was conducted with the consent of the user and no information was accessed. As this did not require my full attention, I doubled up by considering how I could orientate the Excel for recording actions taken in appendix 3.

My next task was to open a new ticket, S-ticket2, as a result of an incident reported through Arter IMS. This issue relates to an error occurring when adding links to IEC documentation in Microsoft Office 2013 Word files. I recorded all steps taken in a procedure report and resolve this ticket on the same day. I submitted the report to the colleague which filed the incident and provided actions to be taken. I took this example as a learning exercise for my newly developed treatment of IT related issues within the organisation and asked my colleague who filed the incident if we could have an after-action discussion to work on any suggested improvements. The feedback was valuable, and I worked for a short while in the afternoon improving both the incident collection process and ticketing reports.

I was incredibly happy with the results of today and feel this will greatly help with the future development of incident management within SESKO. The education received during my studies proved vital for introducing these changes.

Wednesday 26.02.2020

In the morning, I took the opportunity to review some of the different websites which were recommended during my cybersecurity studies at Laurea. I hope to add some further resources to my information gathering resources and increase my effectiveness. I added new folders to better organise my work laptop's web browser favourites as I have started to collect different links for current projects and possible future projects, Figure 10: Browser favourites snippet. While I continue to use Microsoft OneNote as a mind mapping tool, this additional to information management will improve accessibility for important websites during meetings and other situations when I do not want my detailed notes to be visible.

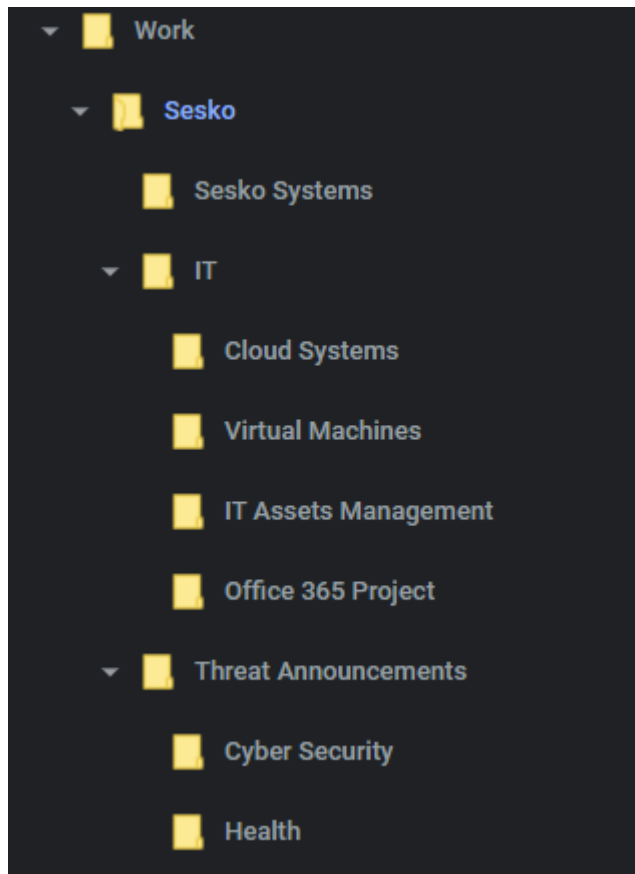


Figure 10: Browser favourites snippet

During the afternoon, the Office Manager briefed me on an upcoming event organised by CEN-CENELEC for newcomers to the field of standardization, named StandarDays. The event takes place in Brussels at the CEN-CENELEC Management Centre in early April. It is orientated towards all persons interested in the European Standardization System and recommended by SESKO that I attend. I received a link with further information and a draft programme. I booked an appointment with the Managing Director to discuss my involvement and which seminars might be advised while in attendance.

In addition, I gave an update to the Office Manager on my use of Arter IMS for incident reporting and demonstrate the sample cases I have covered earlier in this paper. She was confident that implementing this in the future would be a positive move towards transparency and reporting of tickets for future reference.

Thursday 27.02.2020

During the morning coffee, I was chatting with one of my colleagues about possibly attending StandarDays next month. Being the newest addition to SESKO, he advised me to register for the event now as there are a limited number of attendee places. As registration is free and

can be cancelled later, I decided to follow his advice. It is possible that I may not be able to attend due to the temporary nature of my contract. I took some time to going through the event registration form, as it was necessary to read about the different events and selecting which of the seminars I would benefit from most.

Before lunch, I had a meeting with the Group Manager responsible for ISO/IEC JTC 1 - Information Technology standardization regarding my role and responsibilities from within SESKO towards participation in ISO/SFS/IEC publication development. We reviewed some material using the tools available to the Group Managers and I was introduced to some of the ongoing discussions through the online portal from IEC's expert management system. Having received a confirmation email from the Finnish Standards Association (SFS), as to my activation for electronic balloting, I logged in to the portal using my credentials and practiced voting. The system is quite self-explanatory, however having an experienced colleague with me was educational and shortened the learning curve significantly.

After lunch was spent reading a sample draft international standard for the sub-committee which I am a member of. The title of the document is Information security – Criteria and methodology for security evaluation of biometric systems. I chose this document for two reasons; the subject is somewhat familiar as I covered some of the material during my complementary competence studies and I have noticed a reluctance to utilize newly added sign-in options for Windows 10 on company laptops. I found the information contained in the draft to be stimulating and hope to consider recommendations based on the material in the future. I am unable to provide a reference to this document, as it is only available for members of the technical sub-committee and licenced for single use.

Friday 28.02.2020

Today turned out to be a relaxing day at the office. No meetings to attend and I decided to continue trying to further some of the goals I must introduce an IT assets management system within SESKO. I arrived at work quite early and took the quiet time to read through some of the news outlets and update my knowledge on the COVID-19 health crisis. The WHO has raised the risk of spread of from high to extremely high in the daily situational report. The situation in Finland and my home country remain stable, with Finland having a single case reported some weeks ago, and it being contained, while Ireland still not reporting any infections. I intend to follow the situation much closer as there are people close to me who are at risk from such infections.

During our morning coffee break, the discussion was on risk assessments related to password management and accounts shared between co-workers. SESKO has not had any incidents relating to information theft and there is an internal directive providing guidelines for best practices. In general, I believe my colleagues understand and follow the guidelines, however I

did question the need for updating these more frequently to adjust for new technologies and ways of working.

Most of my day was spent working with the VM VirtualBox system, which I setup during week 2 of the diary thesis. I conducted a set of scans on our internal network, checking for vulnerabilities like wrongfully open ports, and generated some reports to discuss the process further with the ICT Manager. Proceeding with deeper testing is a decision to be made later as I currently do not have full access control to the network. I cannot include the reports in this paper as the information could expose the organisations network to outside interference.

Week 6: Summary

This week did not turn out exactly how I had hoped and it was again time to return to Dawson's chapter on managing your time (2011, 161) and consider if it was necessary to make some changes in how I was spending my time. I intended on spending more time investigating the remote office capabilities for SESKO employees, however as the budget did not allow for such development projects this year, I was forced to reconsider my time and effort. I still believe there would be benefits for the organisation to consider implementing some smaller changes, and I will continue to research possible projects like the adoption of a Microsoft Office 365 environment, however I must also work within the means of our current systems.

The COVID-19 health crisis has taken quite much of my time this week, which was somewhat foreseen, but I had hoped the situation would not escalate as quick. I intend to remain vigilant and hope to present information to my colleagues and the Managing Director, should the need arise in the future. I believe my efforts are not wasted in this as currently SESKO relies on guidance from IEC, CENELEC and THL in order to make decisions.

The Lime CRM project has not been mentioned much this week, due to the Group Managers reviewing changes which have been made in the past couple of weeks. There is still some correspondence going back and forth between my colleagues and the lead developer at Lime Technologies, however it is outside my responsibilities for the time being. Hopefully, next week will start to see something happen and I will become involved again.

I believe the progress of my other responsibilities has come along nicely this week. I have started to get a better picture of how SESKO could develop existing areas of Arter IMS as well as implement additional functions, like the incident management reports. I have also recorded functions within Arter IMS which I can recommend we discontinue in the future, namely the file storage system due to the lack of any file management. The possible implementation of a detail ITAM project has become more apparent and after further discussion with Office Manager and Managing Director I have received approval to broaden my efforts. Vulnerability mapping will be an integral part of this project; however, a better definition will be needed

in the future. I intend on speaking with the ICT Manager about increasing my access rights within SESKO's systems, if permissible.

3.7 Week 7: The week of meetings returns

The news over the weekend has been quite upsetting as the COVID-19 situation has worsened greatly and there are several countries within Europe with increasing infections. Some of these countries are on the travel plans for my colleagues and I feel there will be a need for our company guidelines to be reviewed. I hope to spend more time this week preparing and reassuring my colleagues, by researching information and reading the WHO situation reports which are published daily. In the meanwhile, work in Finland seems to continue uninterrupted.

The bulk of my calendar is again full of meetings this week. Hence the title for week 7, the week of meetings returns. This week, however, I have myself to blame for arranging some of the meetings. This is for two reasons; the first being that the colleagues whom I will meet with individually are often working remotely, the second reason is to ensure I have collected detailed knowledge from all SESKO employees regarding the different systems and services utilized. This information will ensure I am working on the same page when needing to make decisions in the future.

I have my second opportunity to participate in a national committee meeting for the purpose of observation, education and assessment of the online services utilized within the organisation. I hope to be able to have a comparative discussion with the respective Group Managers afterwards and be able to offer feedback from my expertise and role within SESKO. I expect a significant share of my time this week to go towards this effort. The hope is to widen my understanding of expert participation and pay greater attention to the role of the chairperson.

Monday 02.03.2020

Over the weekend, the Managing Director sent out an information email concerning the COVID-19 health situation. Last Friday afternoon, before leaving the office, I had discussed the possibility with her and at the time I did not feel warranted inclusion in my thesis diary. This was due to the discussion being unscheduled and at the time there did not feel to be any urgency. In the email, clear guidelines are drawn out and information for all employees regarding our health care policy is emphasised. It is also clear, from the email, that more information will be required as we learn how this is going to turn out.

After reading my emails, I started to read through the different websites I have listed for my information portals. During our coffee break, I lead the discussion with the topic of upcoming travel arrangements during the morning coffee. There is a general understanding that some

adjustments will need to be made, in the near future, and for this reason I mentioned to my colleagues that I have been researching the possibility of adopting some IT infrastructure changes to allow for greater remote work capabilities. The response was quite positive, and I received some advice on how to approach the subject with the ICT Manager further.

I took some time before lunch to familiarized with sample reading material relating to tomorrow's national committee meeting, SK 61 - safety of household and similar electrical appliances. I chose a subject which was included in my studies at Laurea, under the study unit Safety of Products and Services. I had produced a case study for portable vaping devices, whereby I compared two products intended for the same purpose and assessed the risks relating. I discussed with my colleague, who is responsible for SK 61 before downloading the following documents from the secure IEC website concerning these products in order to read before the meeting:

61/5953/NP: Household and similar electrical appliances - Safety - Part 2-121: Particular requirements for portable vaping device.

Draft EN 60335-2-5:2015 Household and similar electrical appliances - Safety - Part 2-5: Particular requirements for dishwashers.

In the afternoon I received acceptance from the Managing Director to attend the educational event StandarDays arranged by CEN-CENELEC in Brussels. After some discussion however, we agreed that I would only arrange the hotel booking for now, ensuring free cancellation is permitted. The reason for concern was relating to the possible travel restrictions coming into force should the COVID-19 situation continue to escalate. I asked from colleagues, who had attended the same event in recent years, for advice regarding the accommodation and made a booking.

Before calling it a day, I had an ideation discussion with the Office Manager regarding office readiness plan for remote work capabilities and current / future SaaS licenses. This was unscheduled and without an agenda or record. Overall, I feel she wanted to ensure we agreed regarding the future of SESKO and I hoped for the same reassurance in my efforts.

Tuesday 03.03.2020

I have allocated my entire day towards my participation in the national committee meeting SK 61 on Safety of household and similar electrical appliances. As with my first experience, the meeting was held in Finnish and there were many occasions when the discussion moved to English to discuss sections of the IEC documentation. There were two occasions when I was asked by my colleague to comment during the meeting. The first with regards to a linguistics issue and second the correct referral to the products which I had read in preparation. There

was no time in the afternoon to have a follow up discussion with my colleague, so we agreed to return to this later in the week.

Wednesday 04.03.2020

Today will focus on only two main tasks and I expect to spend the entire day in meetings. These were assigned to me during the last monthly office meeting, and I felt it would be heavy enough without the need to add small additional tasks. I did however take some time to check my email and read some basic information from the THL and WHO websites before going to the meeting room.

My morning was dedicated towards improving how SESKO is collecting, processing, and reporting travel expenses for employees and consultants using our electronic financial management software. I was teamed up with our Business Coordinator for this small project as we could complement each other's knowledge of our other ICT systems and Procounor Financials. At 9am we attended an educational webinar organised by Accountor Finago Oy, the developer for Procounor, on business user training. This half hour training session was orientated towards the tools available and introduced a mobile application for travel expense reporting named Procounor Mini. Procounor Mini offers some new features, allowing the user to record their travel time and costs incurred during a trip (Accountor Finago Oy 2017).

After the webinar, we discussed the collection method, Accountor Mini, and considered other possible solutions. Currently, SESKO holds a license with the service Formstack to collect information through online forms which can be integrated into our website and other locations if needed. The service is both flexible, allowing for customized forms to be created as well as providing ready to use templates as part of the license. This information can then be imported to Excel and other formats which Procounor can use. The introduction of a mobile application at this time was unnecessary and, based on the number of ongoing system and service changes within the organisation, judged undesirable. We agreed that the option did not propose new value to SESKO as the Business Controller estimated the time required to be insignificant. We did not need to consider other options and agreed that working to improve the use of Formstack would be our best recommendation.

After lunch, I took a little time to read through my emails and respond to a few short messages from my colleagues which were testing Slack.

My afternoon meeting was with one of my colleagues, who holds more than one role within SESKO. His main role is as one of the Group Managers for various technical committees, however he also holds the duties as ICT Manager. Our meeting was a development discussion for my position within SESKO, as well as an opportunity to increase my knowledge of his role and responsibilities. During our meeting, we ran through his duties and time management before

discussing my involvement with the ICT development for SESKO. Our aim was to establish a consensus as to how to proceed in the future and learn if there are some ongoing projects which I could become involved. This was a very productive meeting and I was added to various future calendar events for the coming weeks. Overall, I feel that we establish a better understanding of SESKO's present ICT and discussed how it may develop in the future, should I remain at SESKO.

Thursday 05.03.2020

Like yesterday, today was dedicated to my participation in two meetings which resulted in little time to address other issues. My first meeting was with our Managing Director about contractual agreements between SESKO and the international standardization bodies. The purpose of the meeting was to both increase my understanding and awareness, through discussion and access to detailed material, and aid the Managing Director towards orientating SESKO's response to some of the questions raised. Both of which are essential for my continued development within SESKO. Our meeting was extended slightly, as we broke for lunch, however this was advantageous as it allowed for some detailed information to be gathered regarding common practices and interactions with both CENELEC and IEC.

My afternoon was spent attending another meeting with SESKO's Project Coordinator. As with yesterday afternoon's meeting, the purpose today was also a development discussion with regards to my position within SESKO. Ongoing developments and possible future developments were discussed opening, with the Lime CRM and ICT management projects being the highlights. It was an excellent opportunity to get to know our Project Coordinator also, as she generally works remotely and is the process owner for various licenses. The nature of her work, remote work capabilities, was also discussed and I was able to offer my suggestions with regards to increasing SESKO's cloud-based access and possible license agreement with Microsoft Office 365. While still not officially being considered a development project, I was eager to learn of her opinions and examine any technical issues we may experience.

Friday 06.03.2020

My morning was quite routine, in that I spent a little while reading through some informational emails, which were not directly of my concern, and then moved on to checking the currently news regarding the locations of concern to SESKO. The situation in some European countries has worsened, however no absolute reasoning can be found to recommend new travel guidelines be created in SESKO yet.

During the morning, I discussed the reporting possibilities through Arter IMS and together with the Office Manager and a few colleagues we considered as to whether we could develop this further. Though not a pressing matter, it was interesting to hear the different opinions within

the office as some individuals consider this to be an increase in the micromanagement of tasks.

Today was free from meetings, with just one main item to handle related to the Lime CRM project. I needed to analyse and audit all identifiers for the database to thoroughly test Lime CRM before closing Phase 1. The task was completed using a single Excel document which would be uploaded later by Lime Technologies lead developer. This was only a practice round and I took the time to improve the implementation and automate as much of the task as possible. While not unfamiliar, this was somewhat new for me to do as I needed to ensure my understanding of the different technical committee, working groups, sub-committee and other types of groups created within Lime CRM were assigned the correct identifier. I needed to check with my colleagues on more than one occasion as to the correct kind of user grouping. I found this to be an especially useful task to complete as it was an opportunity to familiarize myself with all group types.

Week 7: Summary

Despite being concerned at the beginning of the week because of the COVID-19 health scare, the week has went unhitched for the most part and I feel I was able to follow through with my plan to participate and host various meetings. The meetings this week all went better than I could have hoped, and I was able to collect valuable information for the projects which I am working on. Perhaps the project which I gained the most knowledge this was the IT audit, due to the meetings with the ICT Manager and Project Coordinator on Wednesday and Thursday consecutively. I feel myself to be more involved also this week, having received detailed information regarding what SESKO currently has underway for back-office technology operations and being invited to participate further in future development projects. Further discussions will be needed along with more extensive access control to our IT infrastructure for me to be a productive member of a team. I intend to broach this subject next week, as I will be participating in a server upgrade project.

This week has been quiet tiring due the number of meetings, along with the news of the COVID-19 health scare being quite gloomy overall. I have felt myself exhausted each day once returning home and in need of distraction to help rest. This has resulted in me limiting the number of main tasks which I intend to complete each day to two. I still have smaller items to handle each day/week, however as many of them tend to be ad hoc I have not noticed any negative influence. At SESKO I have plenty of support from my colleagues and each day there is an opportunity to discuss ongoing issues during the morning coffee. This forum has been invaluable for me throughout my diary thesis process, however this week I have found it to also help motivate the use of my Finnish language skills. There is still plenty of development needed for me to use Finnish proficiently in the workplace, however I am quite hopefully.

3.8 Week 8: SESKO Security & Lime CRM development

During the coming week I plan to work on some of the development tasks which had been assigned to me by the Managing Director during the last monthly office meeting. These related to security concerns over access registry and updated documentation. It will be necessary to work with various process owners within SESKO, in order to consolidate the information. I will also be working closely with the Office Manager and Business Controller as a team to consider viable options for the organisation with regards to the safety plan and possible visitor logging system. I expect both Finnish and English languages to be used, which I happy about as I get to practice my office Finnish skills.

Phase 1 of the Lime CRM project has received plenty of feedback from the Group Managers, who are the main benefactors. The beginning of the week sees a meeting with our consultant from Lime Technologies and I expect to be working on defining some of the functions and information during this week. The goal is to have this phase ready to launch before the months end and hopefully after this week we will have a clear presentable version for all users.

Additionally, I will be participating in my third and final national technical committee during the diary thesis period. This meeting will be slightly different to the previous, due to there being two of my colleagues sharing the role of secretariat because of the scope encompassing a wider area. Again, I will be a silent observer and the meeting will take place in Finnish.

The concern over the heath crisis relating to the COVID-19 infection has been a hot topic both internally and within the standardization community internationally. For this reason, I expect to have some additional assignments from the Managing Director this week with relation to company guidelines and other documentation. It is my intention this week to learn more about the possibility of increasing SESKO's remote work access as I can foresee some radical changes being necessary should all employees be required to work remotely. There are several organisations, throughout Finland, making the decision to self-isolate and work remotely already. While this is possible for the majority of SESKO's employees, there is still no official collaboration software in use for everyday office work and some information can still only be accessed on-premise.

Monday 09.03.2020

Today was a nice easy start to the week, I arrived just as my colleagues were sitting down for a morning coffee and I decided to join them instead of going headfirst into reading my emails and updating my knowledge on current events. After caffeinating and chatting about the weekend, I started my week by reviewing what appointments are upcoming and what I hope to gain for my project development tasks. I spoke with the Development Manager for a short while about the Lime CRM project and asked his opinion regarding the timeline for phase 1

completion. He was quite happy with the current implementation, though there was still plenty of error checking which would need a greater number of users' involvement. We agreed to speak with a few colleagues later in the week and request more involvement.

During the morning, I joined the Office Manager and Business Controller for a meeting to discuss the rescue plan for our office building, Takomotie 8. Prepared by Pelsu Pelastussuunnitelma Oy, the 35-page document, which was drafted in 2019, needed to be reviewed due to the amount of ongoing construction within the building. This task had been assigned during the previous monthly office meeting and some recommendations had been made for a self-audit. We went through the document and highlighted all information which had been requested by SESKO employees and noted some information which was unclear or lacking definition. We then conducted a safety walk of the premises, inspecting signage and testing all exits. A report was compiled, which would be followed up on during the next monthly office meeting. Both of my colleagues were quite knowledgeable in this area, having conducted such audits earlier, and my education complemented the exercise well.

After lunch, I continued to work with the Office Manager on a different subject. It had been noted by her that my way of thinking was still somewhat in line with that of a private organisation and my creation of value principle within SESKO still needed further development. She had created an educational presentation material for me, illustrated in Figure 11: SESKO model vs Business model, and we had an open conversation to go through the slide. The presentation, titled SESKO model vs Business model, aims to define the orientation which employees of SESKO have in value creation. The main rounded rectangle, SESKO - Electrotechnical standards in Finland, describes the value and principals for the organisation. The underlaid rounded rectangle on the right shows' examples of how business interactions and influences correspond to the principals.

My colleagues joke often that it takes quite some time to become truly familiar with the standardization world. They estimate that it can be upwards of 3 years before the bigger picture becomes apparent, however due to the nature of my role within SESKO I hope this to be much shorter as it is required that I separate my roles clearly when developing IT systems and services.

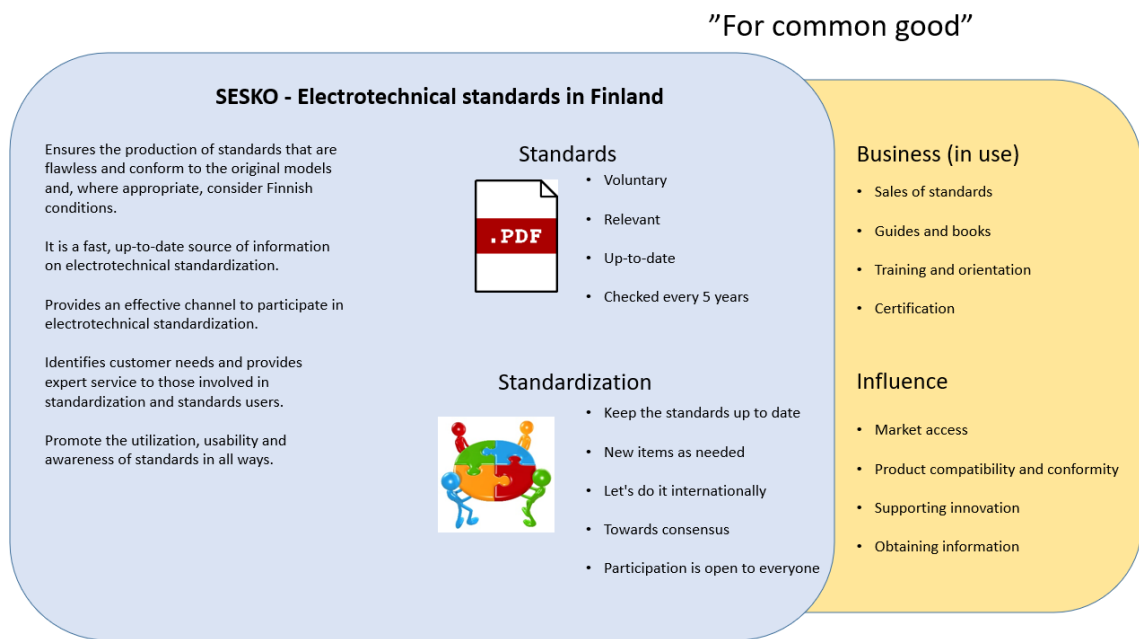


Figure 11: SESKO model vs Business model

Before calling it a day, the Office Manager and I attended an online meeting with the lead developer from Lime Technologies. The main topics to discuss was relating to users inputting new committee groups to the Lime CRM system and further implementing changes to help limit the possibility of errors and discrepancies. The administration grouping in Lime CRM were also discussed, whereby we hope to give the lead developer a clearer picture of our expectations and everyday usage. The meeting was very productive, and we came to an understanding quickly. I was instructed to follow up on today's meeting, during this week, by creating some new records in the database and implementing some trial groupings.

Tuesday 10.03.2020

I was scheduled to attend the national committee meeting SK 8 on Systems aspects for electrical energy supply for most of the day. Having a little time before it kicked off, I reviewed some of the information contained in the WHO situation reports and renewed my awareness. Brussels is still the main concern as we have several staff needing to attend seminars and meetings over the coming months, including myself. The virus is spreading; however, Belgium still reports limited infections and no closure of business.

The meeting for SK 8 went without a hitch and I discussed afterwards with my colleagues several minor topics which arose. This was only to improve my knowledge of official representation and the idea of forming a consensus when filing an amendment to a standard. Having attended three such meetings now as an observer, I feel I know what to expect and have a good enough understanding as to what the technical committees aim to achieve. More importantly,

I understand better the position of the Group Managers from SESKO and how the role of secretariat demands their full attention before, during and after.

I had a little time in the afternoon to review information contained in SESKO's current information system, OSKU, and consider further how we could implement administrative and other groups within Lime CRM. OSKU does not have a separate environment for such groups and the information is compiled within the same listings as all technical committees. Administrative groups represent listings for the board members of SESKO and other official contact lists. Groupings are more flexible within the Lime CRM to create contact lists for a variety of different purposes, from mailing listings to project planning groups. Based on the discussion yesterday, and updates made by the lead developer, I implemented some test groups and noted some discrepancies which could be adjusted.

Wednesday 11.03.2020

Upon arriving at the office this morning, I resumed my work with LIME CRM from yesterday. The information was still fresh in my mind and as there were few colleagues at the office early, I decided to implement a few new groups using information from the Office Manager.

At 10:00 I joined the Office Manager and Business Controller for a meeting to discuss the possible implementation of the visitor access control system in the Lobby, Systam, as mentioned in week 2 of this paper. The purpose of our meeting was to assess the practical issues relating to SESKO adopting the new system, integration to our current room reservation policy, information security, Lime CRM integration possibilities and employee training and implementation. Overall, the meeting went very well, and we estimated it could be around two months before we would be ready to fully utilize the system due to other ongoing projects and not wanting to conflict with timelines.

After lunch, I was called into the Managing Directors room to discuss the COVID-19 health situation. CEN-CENELEC (2020) issued formal guidelines titled, Coronavirus: CEN and CENELEC introduce new guidelines for meetings, which would be published tomorrow on the website's news portal. This information was available to members to help prepare for the change already today. The Managing Director was aware that I have been keeping track of the situation and wished to discuss the possibilities of furthering the restrictions. There was some concern over hosting meetings with outside guest here at the office, as on most occasions the number of attendees can be 10 or above. Recent information from the Finnish media, YLE (2020), indicates that the infections have started to enter Finland with a news update informing of 25 new infections detected. Additionally, yesterday Finnair (2020) released a press release "Finnair adjusts its European traffic in April due to the impacts of the coronavirus" which will impact some of the destinations SESKO's employees regularly visit. The resulting decision from the Managing Director was to implement a new guideline to limit the impact SESKO meetings

might have and to restrict travel for all SESKO employees. Information was sent out via email today; however formal guidelines would be created later in the week.

Thursday 12.03.2020

Today started out by following my routine of information gathering from the earlier mentioned websites. I made sure to read through the WHO situation reports and check on THL's daily updates. An online article detailed the WHO Director-General's opening remarks yesterday afternoon, whereby the COVID-19 situation was declared a pandemic, emphasised vigilance (WHO 2020). The likelihood soon for significant changes in the availability and capability of my colleagues to work at the office location is high, and for this reason I am glad to have been preparing for such a possible project.

I also followed up on the email sent out by our Managing Director yesterday regarding further guidelines by reading through the details of both IEC and CENELEC's current guidelines and recommendations for work practices. Together, with the Office Manager, we spoke with the receptionist responsible for the lobby of our office building to appoint her as contact person for any changes which may occur throughout the building. She agreed that this course of action would avoid cross-communication and miscommunication regarding opening hours and available facilities, i.e. the canteen.

The remainder of the day was spent preparing for the next Lime CRM meeting, creating an agenda, and checking if the current testing environment was working as intended to avoid the demo effect. I will need to demonstrate the new functions for my colleagues before and during the meeting, in order to request further feedback. This required detailed preparation and a solid understanding of the current limitations of the system.

Friday 13.03.2020

During the morning coffee, it was suggested that all SESKO employees are introduced to the office communication tool Slack. Three of my colleagues have been using this to trial the system for the past two months, however, there has been little interest in utilizing this as a possible replacement to email by other colleagues. This morning, the attitude has changed slightly due to the pandemic and increased possibility of working from home. The feeling is to help communicate general chat through Slack to help ensure they can continue sharing ideas and have a community feeling. I sent invitations to the restricted Slack workspace and assisted 3 other colleagues with installing the necessary software and getting them started today. Two of my colleagues work from home regularly and expressed no need for assistance.

I spent a few hours working on the ITAM, conducting a further analysis of the existing material available through Arter IMS and documentation contained on our local file server. I intend on

integrated all material into a single Microsoft Excel file to help create a comprehensive datasheet. I spoke with a few of my colleagues and requested some further information on license agreements and user access levels.

The Managing Director called me in for a short meeting regarding the new guidelines discussed earlier in the week. We talk about my thesis and she provided some guidance and advice on the process, from SESKO's point of view. She informed me that the first draft of the guidance would be sent to me after a couple of hours.

I left the office early to have a meeting with my supervisor from Laurea at the campus in Leppävaara for this diary thesis. The meeting took approximately 1 hour and I continued working from home as I live in the same town.

Once back on the laptop, I read through the guidance sent to me by the Managing Director. There were two documents, one for internal guidelines with more extensive details and another for publication on SESKO's website. I responded with my suggestions for amendments and translated both documents into English. SESKO Coronavirus Bulletin was published later by the Managing Director (SESKO 2020).

Week 8: Summary

This week has been exceptionally busy in that I have managed to complete all tasks which I had hoped to and have needed to be available to work help address organisational concerns over the COVID-19 pandemic. I have clearly found my place within the office and have had more opportunities to work closely with my colleagues over the past 5 days. I have felt appreciated and my knowledge valued with regards to the security issues for the premises and organisational information systems, and I hope to increase this soon as I gain greater access to our IT systems.

Both of my main projects, the Lime CRM and ITAM project, have progressed greatly during this week and received some good feedback from others. Lime CRM has seen some clear development in useful functions, make it easier for the users to perceive value gained. Also, the working relationship with the Lime CRM team has developed further, in that we have more established roles and a deeper understanding with the outsourced developer from Lime Technologies.

The initial IT systems audit, listed in my job description, has clearly evolved to become an actualized ITAM continuous development project. Also, over the last 5 days I have managed to clarify the goals of the project for myself and further my consideration of Dawson's recommendations mentioned in week 2 summary. There is clearly still more work to do for this, and

I must study in more detail the best practices. It is my intention to request approval and gain consensus, at the next monthly office meeting, to make this an official focus in the future.

3.9 Week 9: ITAM project implementation plans

The COVID-19 pandemic dominated the news over the weekend, and I expect it to be a topic of great interest during the working week. SESKO's Managing Director published the SESKO Coronavirus Bulletin this morning, which I was working on last Friday, and I foresee there will be a need for me to help manage the crisis by supporting her with updates. Additionally, I hope to learn through opening discussion what might be needed from my colleagues should our office close for containment of infection.

I have planned a meeting with the IT Administrators regarding the possibility of a future development project within SESKO for Cloud services and Microsoft Office 365. I hope for a motivated discussion and have asked for as much information to be shared as possible. My intention is to make a proposal to the Managing Director and add this to the agenda for next week's monthly office meeting.

Both of my main projects are coming to pivotal points in their development this week. While the Lime CRM development project has the collective efforts of our project team, my attention will need to focus towards improving the appearance of the information and clarifying procedures. I intend on implementing a first version of the ITAM project during this week in Microsoft Excel format, with an accompanying Microsoft OneNote notebook for future collaborative information. I have more meetings scheduled during the week to increase my awareness and knowledge for the ITAM project.

Monday 16.03.2020

The early morning was spent updating my awareness of the current health care situation and discussing the new SESKO guidelines with colleagues. The office was a bustle due to all Group Managers needing to rearrange near future national committee meetings and I made myself available for any questions they had concerning our current hosting capacity for online meetings and the equipment required. We also discussed how to make use of SESKO's Slack workspace, and I worked with a few colleagues to ensure they were active and had the familiar with the service.

The university which I attend has also closed its doors and switched to remote work for the foreseeable future. I have concern over how this may affect the outcome of my thesis as it will limit my access to physical literature as all library access is also closed. Thankfully, most of the material is available in eBook format and the few books which I intended to use can be replaced by other sources.

I dedicated a few hours to researching how I might implement the visualization for the ITAM. I started off by reviewing current documentation in SESKO: access to registry and systems, license registry and information services registry. My colleague recommended I download a standardization related special publication by NIST (2018), 1800-5, on IT Asset Management as it contained a structured approach. I then searched for recommended best practices for categorizing the areas of an ITAM. The most noteworthy was guide published by a Business2Business software solutions provider, Comparesoft Ltd (2019). The NIST publication reinforced the guide as being the recommended areas when consider how to best categorise. This guide suggested a breakdown of 6 different areas for the ITAM:

- On-Premise Software
- Cloud-based Software
- Employee Hardware
- IT Hardware
- Peripherals
- Bespoke IT assets

I prepared an early draft of a Microsoft Excel datasheet seen in Appendix 4. For the time being, I put this aside for further consideration.

During the afternoon, I attended a meeting with the IT Administrators regarding practical issues posed by SESKO adopting a cloud service environment and introducing a Microsoft Office 365 licensing agreement. All current administration was clarified and demonstrated by the ICT Manager and I proposed we evaluate the costs for SESKO to make the transition. The response was not overwhelmingly positive or negative, as all parties could perceive the possible dangers relating to maintaining a local file server and offline Microsoft Office environment. The decision was to convey this information to the Managing Director for further consideration. I was instructed to conduct an initial assessment of the costs in comparison to our currently systems and services. Additionally, I was to consider different scenarios which might be available to SESKO.

Tuesday 17.03.2020

Having not worked in an office environment for almost two years, due to attending Laurea, I have been experiencing repetitive strain on my wrists from old peripherals at my desk. SESKO has, overall, considered all ergonomic solutions for the employees, with height adjustable computer desks and supportive chairs. The keyboard and mouse, however, were not up to scratch and I decided to purchase something more suitable. This was a good learning experience in that I familiarized with the acquisition of small office equipment and how to file the receipt correctly into our electronic financial management software, Procountor. I also took

the opportunity to consider how such purchases would be accounted for in the ITAM, as it is my intent to audit all peripherals in the future and eliminate waste.

While working on my ergonomic issues, I spent the morning discussing the outcome of my meeting yesterday with our Office Manager. She expressed support to implement IT service changes with regards to adopting Microsoft Office 365. I informed her that I intended to participate an educational webinar this afternoon hosted by a Helsinki based IT consulting and training company titled "How to move your meetings online using Microsoft Teams?". I had learned of this only yesterday evening through an acquaintance working there and thought it to be appropriate considering our circumstance.

Before going to lunch, I spent a little while reading through some information bulletins and situation reports to ensure I had up to date knowledge of current events as I had a meeting planned with the Managing Director in the afternoon and wanted to ensure I was aware.

After a lovely burger, I worked with the Managing Director to get her online with Slack and ran through some possible scenarios for usage and simulated conversations. We also had an informal discussion about my likely future career at SESKO. As both my mentor and boss, we can discuss openly such topics and I feel comfortable to ask for advice regarding my career path. I took this opportunity to brief her on my preparedness to begin a new project on adopting Microsoft Office 365 and I was informed that due to current circumstances this would be considered further.

My afternoon was spent attending the educational webinar, mentioned earlier, on how to better use Microsoft Teams. This addressed the need for drastic changes due to the current time of crisis and how adopting a team collaboration tool like Microsoft Teams ensures an organisation can continue to function when physically separated.

The ICT Manager came to my room and informed it has been decided that I will receive additional user access rights within the organisation. I was handed over newly created personal system administrator account credentials. This will ensure I have access to all information and assets needed to complete a comprehensive ITAM, vulnerability audit and local server administration assistance. While I had hoped for such access earlier during my thesis period, this would have been irresponsible for all parties as I need to familiarize with all systems and services beforehand.

Before ending work for the day, I needed to research a quick solution for one IT issue a colleague was experiencing with an Adobe add-in for Microsoft Outlook. While not an official IT ticket, I took the opportunity to also document the issue and solution using the incident report in Arter IMS. I found the solution from the Adobe (2016) support community and implemented the needed update.

Wednesday 18.03.2020

Today turned out to be quite a short day as I needed to handle some family issues in the afternoon. I had only two items on my agenda for the day and attempted not to get distracted by other areas.

The morning was spent in a guidance meeting with our Development Manager. The subject was vital for the administration of Group Manager tasks and the associated information of IEC international technical committees. He covered the IEC member and expert tools and services available through the web portal, which are designed to help with daily IEC activities (IEC 2014). He gave an overview of the web portal and went into detail for the Expert Management System (EMS). EMS is only available to registered users appointed by their national committee. Being an employee of SESKO, I have such credentials and it is my responsibility to be familiar with the system. I have had access to the system since starting the current contract with SESKO, however currently I am not required to administrate over any information.

After lunch, I prepared for the Lime CRM project meeting scheduled next week by creating an agenda and sending out a request to all members for additional information and consideration to be made on a few key points.

Thursday 19.03.2020

I started the morning off by reading through my collection of information portals. Internationally the news is grim as the pandemic spreads violently. Here in Finland the spread is still slow with the term 'social distancing' being coined for this exceptional time. Remote work has been strongly adopted by those who are able to continue their work from home. We have also received additional recommended measures from IEC on remote work capabilities and the arrangement of meetings. I reviewed all material in preparation for a meeting later today with the Managing Director.

I worked on the ITAM Excel datasheet, created earlier this week, for a couple of hours this morning. I began filling in as much information which I currently have access to and highlighted the sections which will need participation from others.

Just before lunch, a laptop update arrived at the office for one of my colleagues. As I had worked with our IT Administrators back in the end of February on the previous update, I enquired if it would be okay for me to proceed without his assistance. I ran all installations and updates, added the local domain administration account, and prepared the laptop throughout the day while conducting other tasks simultaneously. All procedures were documented to ensure nothing was left out. I will finalize the laptop tomorrow with the owner's consent.

We have started to feel the effects of closures here at the office building as today is the first day where we have no local canteen available. There are fewer people present at the office also, with only a handful continuing to work from here daily. I will continue to work from the office for the time being and use every measure possible to limit my exposure and contact while commuting. I need access to the local file server to be able to complete my tasks and aim to maintain the office while those at greater risk endeavour to work remotely.

After lunch, I had a meeting with the Managing Director regarding Microsoft Teams. She had requested an instructional meeting to familiarise her with the tool. We conducted a few test sessions, one which include a representative from a possible contractor for the implementation of a Microsoft Office 365 system for SESKO. Our meeting ran on for some time as it was necessary to discuss all development projects which I am involved with for SESKO and how we could integrate a possible Microsoft Office 365 project at this time in junction with all other ongoing projects. Thankfully, I was well prepared and had consider a few ways to prepare for such a scenario. I requested permission to take contact with a possible supplier and get a cost estimate for having the work conducted by an external consultant. I was given permission to proceed and required prepare a proposal which could be presented next week at the monthly office meeting.

In the late afternoon I had a brief discussion with my one of the IT Administrators on how to proceed with some restricted installations for laptops, namely F-Secure push-installation from our server room and our current licence for Microsoft Office 2013. We agreed to meet tomorrow morning at 10:00 and handle the issues.

Friday 20.03.2020

The morning was spent in conversation with the Office Manager by phone. It is the responsibility of the Office Manager to ensure the monthly office meeting agenda is complete and all necessary attachments are added beforehand. We went through all ongoing projects and I was requested to add the necessary material to Arter IMS. I informed her also that I had been given permission to proceed with the early stage assessment for adopting Microsoft Office 365. Currently, four items on the agenda belong to me, which means I will have a lot of preparation next week.

Having worked as a business communications consultant for many years in the Helsinki region, I have got to know companies and individuals working in the IT service industry. I availed of one such contact, a sales manager with Sininen Meteoriitti Oy, and requested a phone meeting. I emailed him all necessary information and made a formal request to ensure the integrity of professional conduct. He responded quickly to say he would send me a Microsoft Teams meeting invite for this afternoon to discuss further.

The rest of the morning was split between two ongoing tasks. Finalizing the new laptop and the adding information to the ITAM datasheet. A positive result of working on both tasks simultaneously is that there was information required for the installations which would also need to be included in the ITAM.

At 10:00 I worked with one of the IT Administrators on installing a few services onto the laptop which I did not yet have access rights. This gave me the opportunity to use my administrator account and have my mentor looking over my shoulder and supporting when needed.

After lunch, I joined the sales manager from Sininen Meteoriiitti Oy for an online meeting, as a guest of their Microsoft Teams environment, to discuss getting a Microsoft Teams environment implemented for SESKO. The meeting was very productive, and I will have an offer before the monthly office meeting next Friday. I will have a second online meeting next Thursday, whereby I will invite the ICT Manager from SESKO, and Sininen Meteoriiitti Oy will attend with one of their technology consultants. This is to ensure all information needed is on the table and we have an actionable plan for our Managing Director before the monthly office meeting. The timing will be extremely tight; however, and I hope to have most information earlier than Thursday. I have been told to treat this with urgency by the Managing Director due to the pandemic crisis.

Week 9: Summary

Quite much of my time this week had been allocated to preparedness and development ideas in the case of SESKO needing to institute stricter guidelines with regards to social distancing and the means in which we could all continue to work, productively, from home in accordance with the IEC guidelines (Vreeswijk 2020) mentioned in week 4. My morning routine has helped me greatly, throughout the past few weeks and by following a strict adherence I have been prepared for sudden meetings to address the organisation's needs. I was fortunate to have contacts, from my previous career, within IT companies specializing in Microsoft cloud products and solutions. This put me in the loop on social media and personal contacts regarding educational events and webinars relating to my concerns at SESKO. I had people to speak with, in confidence, and was introduced to experts who could assist should I be green lit for a project on Microsoft Office 365.

There is the possibility of this change introducing a significant development project for my role as Security Assistant within SESKO. Fortunately, by examining the physical and technical threats for organisational information security, I already raised concerns at the beginning of the thesis period. It is the hope of the Managing Director, that by having a somewhat outsider's perspective and comparative approach, the organisation will be able to gain a clearer picture from my assessments. The ICT Manager has shown full support in this effort and hopes

the weight of such responsibilities will be more evenly distribute in the future. Through vulnerability scanning and discussions with those responsible, it became clear that the focus has been on the physical security. The main example of this has been the resistance towards updating the information security standards used for vital data and the continued use of local file servers with physical magnetic tape backup systems. The ownership of such data relies on a single individual for file integrity and the reliability of consistent backups has not been proven. SESKO has lacked the resources recently to implement the required changes to the office structure and it has been my underlying responsibility to assess the possibilities for future developments.

This week was key in the development of the ITAM project, due to the availability of information and my newly appointed extensive access to all systems. Having all the necessary information, I was able to further my knowledge in the area and begin developing actual material. The ITAM project is a far-flung extension of my original responsibility of auditing key systems for SESKO and is only possible because of the support I have received by all my colleagues and the guidance of the Managing Director. The goal now will be to have an informational presentation for next week to demonstrate to the office what I will be working on and demonstrate the data to the ICT Manager and Managing Director. There is still quite much to do for this, as the datasheet is quite raw currently and there is information still in need of sourcing to complete the form. It is clear to me that for SESKO to implement a comprehensive ITAM it would need to be a continual improvement process in the future for it to be effective. I will work more with the Office Manager to develop this process and define it within Arter IMS for transparency.

For the first week, I feel I have not been lacking any information or access control to be able to complete my tasks. The level of support, and motivation received from others, has been phenomenal. Time management and the ability to accommodate the changing environment in the workplace, due to the COVID-19 pandemic, will be my focus in the coming weeks.

3.10 Week 10: More meetings, consensus seeking

This week is aptly named because of the number of meetings which I must attend. One of my colleagues commented at some points during my induction, that working in standardization means working in meeting rooms. These meetings are where you can expect to accomplish the most and should be the place where you hope to acquire the most knowledge.

I have plenty of important meetings during this week and it seems fitting that in the final week documenting my diary I will learn of my future career within SESKO. I expect much of my time to be taken up in preparation, action and after action for my two main projects, Lime CRM and ITAM, as well as planning for the addition of a new project Office 365. Lime CRM phase 1 launch will be agreed, also the responsible administrators will be decided. The

ITAM will be formally introduced to SESKO during the monthly office meeting on Friday, the scope and responsible individuals will be defined. I hope to receive a decision for the Office 365 project also by Friday, which will also include the scope and responsible individuals.

Additionally, this week I will be working with our IT Administrators on some important server maintenance which will help improve the usage of our resources.

I have a development discussion with the Managing Director scheduled for this week, where I will learn of her intentions for me within SESKO. My responsibilities and salary must be discussed, after which she will decide on how to proceed before announcing my role and assigned tasks during the monthly office meeting on Friday.

Monday 23.03.2020

My day began quite early as I wanted to avoid the busier busses by leaving home around 7:00. I hope to continue working from the office again this week to be more effective. I remain vigilant while in public and have implemented social distancing where possible in my free time. While not in a risk group for the COVID-19 virus myself, I am aware of those around me in these times. I took a little time to reposition hand sanitizers at the office to ensure we are as careful as possible. The remainder of the morning was spent reading through the daily situation reports and updating my awareness on further guidelines by our partners and the standardization bodies.

During the morning coffee break, there was a discussion on the current situation with meetings and how we are considering moving some services to cloud. Some reservations were expressed, because of bad experiences in the past, with regards to email migrations. I reassured my colleagues, that should we begin such a project we would employ expert consultants with extensive experience of Microsoft cloud-based environments.

At 9:30 I attended a meeting with our Lime CRM development team and the lead developer from Lime Technologies. The agenda for today's meeting covered various practical issues, including some user-interface design implementations, a general status report, launch of phase 1, definition of phases 2 and 3 and agreement on the dates for user and administration training. The meeting went without a hitch and I was happy with the outcome, the key being that Lime CRM is agreed to go live for phase 1 mid-April.

In the afternoon I worked with the ICT Manager on one of our local servers to demote from domain controller and then repurpose for other services. In preparation for this work, I studied some online tutorial material and review instructional expert videos. Dimitris Tonias (2018) published a detailed guide on how to demote a Windows Server 2016 domain controller on his personal IT Pro website, and Chris Davis (2016) at PC-Addicts produced a guide on

Server Basics 2016 - Setup Entire Domain. With this knowledge, I was better prepared and re-familiarized with Windows Server 2016.

The ICT Manager purchased a guidance manual from Server Essentials to help with the process. The manual is for personal use online, in PDF format, and I cannot reference it directly here. I can however refer to the website which it was acquired, <https://www.server-essentials.com/>.

We encountered some difficulties with the demotion due to access control issues and it was necessary to research an alternative method to accomplish the task. Overall, the work took a few hours and during this time I gain detailed knowledge of the IT infrastructure and procedures from my colleague. Once we were satisfied the old local server was no longer relative for other services running on our network, we reinstalled Windows Server 2016 to repurpose the machine for future use.

Tuesday 24.03.2020

My morning was spent online with the Office Manager, through Microsoft Teams, reviewing yesterday's Lime CRM meeting, discussing the possible upcoming changes with Office 365, reviewing the server administration tasks and preparing for the monthly office meeting on Friday this week. In total, I would be responsible for two main items on the agenda: ITAM project, Office 365 + Teams project and comment as a team member for three smaller items. I updated the agenda on Arter IMS before ending the meeting. I hosted the Microsoft Teams meeting through my Laurea credentials to demonstrate the usefulness of the collaboration software.

Before lunch, I worked on a few minor IT issues relating to our current Microsoft Office 2013 software. This was related to the same issue I resolved on Tuesday last week and I found it useful to have documentation in Arter IMS on how to proceed with additional updates. I would need the associated laptop to complete the work, so I made a request for access to my colleague and postpone this till tomorrow.

My afternoon was spent in a meeting with the Managing Director, about my future development and career within SESKO. I cannot disclose information as it is not confirmed and contains private information. Suffice it to say, I was pleased.

Wednesday 25.03.2020

Today was reserved for preparation and researching information for the monthly office meeting on Friday. In the early morning I read through my information bulletins, situation reports from the WHO and the NIST publication on IT Assets Management. I discussion with two of my

colleagues regarding the number of different development projects and asked for some advice on how to avoid too much overlap. Having both worked for SESKO for several years, they gave examples of previous projects and referred me to some documentation to help guide me in the future. I noticed some insufficiencies in the project communication planning for documentation and committed to improving this, should the opportunity present itself.

I completed resolving the IT tickets described yesterday in the early morning, after getting a hold of the affected laptop. This was quite routine and did not require further documentation of the incident.

At 11:00 I attended an online meeting, via GoToMeeting, with the Development Manager to go through some of the key points raised for Lime CRM during the meeting on Monday. We discussed usability concerns for the Group Managers, in information retrieval and new record creation. It was agreed that this would be handled next week, after the internal user guide was created and specific roles were assigned. After a late lunch, I spent the remainder of the day following up on the meeting by reviewing all Lime CRM updates and made notes for the user guide.

Thursday 26.03.2020

Today I focused on preparing information for the ITAM introduction during the morning. This consisted of a Microsoft PowerPoint presentation containing 3 slides and a snippet of the Excel datasheet with some detailed information on licenses and user access rights. Figure 12: SESKO ITAM presentation slide 2 below illustrates the areas of focus for the ITAM project with examples of assets which SESKO currently hold. While Figure 13: SESKO ITAM presentation slide 3 lists the benefits for SESKO to implement a comprehensive ITAM. The Excel snippet cannot be disclosed due to confidential information and adherence to SESKO's GDPR (2018).

Areas within IT assets management

SESKO



Figure 12: SESKO ITAM presentation slide 2

Benefits of IT assets management

SESKO

Licence / Service audit

Reduce software and hardware costs

Improved cyber security awareness

Access control audit

Configuration information for service management

Budgeting information

IT asset management “provides an accurate account of technology asset lifecycle costs and risks to maximize the business value of technology strategy, architecture, funding, contractual and sourcing decisions.” - Gartner

Figure 13: SESKO ITAM presentation slide 3

After lunch I focused on preparing for my afternoon meeting with the Sininen Meteoritiitti representatives for the Office 365 project. I had received the cost estimation in the morning by email and discussed this with one of the IT Administrators. I requested him to attend the meeting to ensure all questions could be answered, as the ICT Manager was unavailable. The meeting took place online, via Microsoft Teams, with two people from each party attending.

The meeting was highly effective, and a lot of information was gained from the architect from Sininen Meteoriiitti.

Afterwards, I discussed further in private with the IT Administrator the details of the offer and estimation of workload and effects on working hours due to downtime. We were both satisfied that the disruptions would be minimal, and I forwarded the results of the meeting to our Managing Director and ICT Manager.

Friday 27.03.2020

My morning was spent in discussion with the Office Manager over the phone about the office meeting for today. We discussed the different topics and agreed on which sections I should be prepared to include information. The meeting would be predominantly in Finnish; however, I would continue to use English when responding to questions or presenting my topics.

The monthly office meeting lasted most of the working day, starting at 10:00, and saw more than half of SESKO employees attending via GoToMeeting. Several breaks were taken due to the nature on conducting online meetings. All items were covered on the agenda, as scheduled and I feel my project presentations were received well by all.

During the meeting, it was announced that I would remain working for SESKO under a new contractual agreement with a different working title and new job description. The Office 365 + Teams project was green lit, and I was named as project leader. The ITAM project was also confirmed as being one of my responsibilities as a continual improvement process. My job title, along with contract and written job description, would be confirmed next week after the President of SESKO's board approved the details.

Before calling it a day, I had a guidance meeting with the Development Manager on the use of a service used by Group Managers. SFS (2012) defines the FINSTA database, as an internally used service by the Finnish Standards Association, containing up-to-date reference information which is essential for Group Managers to maintain information for the experts in each national technical committee. While not a service which I will need to use, it is however a part of the ITAM, and access control needs to be recorded.

Week 10: Summary

I feel I was able to remain productive this week on all parts, despite the strange and uncertain times we have going on in the world today due to the COVID-19 pandemic. My colleague said it best this week, work life in SESKO needed a catalyst, and it seems to have found this in me (Honkala 2020). While I wish it were not necessary, I feel that that the outcome of the monthly office meeting sums up the results of my efforts and I am very satisfied.

I managed to focus this week on the main projects which have been assigned to me while also helping my colleagues with IT issues according to my job description. It would have been easier to postpone some of the smaller IT tickets; however, this has been one of the problems which SESKO suffered from in the past due to a lack of personnel. I considered an analogy of Lehmann's (2013, 37) scorecard for managing my performance, in that my customers require a level of satisfaction. It was important to allocate time and effort towards resolving these and reassuring my colleagues that I would not lose focus due to the introduction of a new project, officially named SESKO O365.

Now having clear definition for each of the projects I am working on, I feel it will be important to make use of some planning tools, like Microsoft Planner, to schedule tasks and ensure we have a little overlap as possible. There is currently no such implementation in SESKO as till now there has not been a need for large projects to occur simultaneously. The COVID-19 pandemic has altered this need and as such we must adjust to fit the needs and limitations.

4 Final analysis & reflections

In the beginning of January 2020, I could not have foreseen the changes to my situation which have occurred over the past 3 months due to the pandemic. The original intentions of a career transition have remained integral, along with the core responsibilities assigned to me for the period of employment. While I am assured by my employer that I have fulfilled their requirements, I have also needed to be extremely adaptive throughout this period. I have relied on development discussions with my supervisors and my own time management to remain effective and productive. I have needed to consider what best practices would need to be adopted by the organisation and use my experience and education to benefit them during these changing times. While I have accomplished a lot during this period, and secured a future position within the organisation, the need to refocus my efforts to accommodate changes in the workplace has left me with a difficult task in writing this paper. I am encouraged by the words of my colleagues and mentor and I can see the results of my actions have been appreciated and my skills utilized.

When I considered how to conduct a final analysis, I decided to concentrate on a few key areas as well as addressing the circumstances surrounding a pandemic outbreak and its impact my work and student life.

4.1 Completion of tasks

Overall, I and my supervisor are satisfied with my efforts during the 3-month contract. I had been assigned two own tasks to complete and assigned to work with one project team. Additionally, other fulfilments are expected of all SESKO employees, which have been documented in this paper under appendix 1.

The implementation of an Information Technology Assets Management system within SESKO was the result of being assigned the task of mapping all vulnerabilities for systems, services, and equipment. While beyond the scope of my original intentions, this was much easier to implement due to the complete nature of the ITAM project. I faced various challenges while implementing this, from decentralized information and unclear guidelines due to a changing working environment. Working closely with my colleagues, I was able to collect, and document all required information and propose a future continuous development project to help improve our knowledge.

The development of SESKO's Arter IMS system remains an ongoing project within the organisation. Working with the Office Manager and various other colleagues, I conducted an audit of the system and analysed the current use of the software. My actions have been documented throughout this paper, with the results discussed internally during monthly office meetings. Future changes will result in some changes to the overall use of Arter IMS, which influences my findings and presentation material. Overall, I was quite happy with the results from this task and there are clear improvement changes mapped out for SESKO as a result. The IMS system was included in the ITAM project scope regarding access control and the service licence agreement.

Phase 1 for the LIME CRM project officially launched one week after the completion of my diary collection period. While not one of my main responsibilities, I was tasked to work in the project team, and I found the cooperation with our Development Manager to be beneficial. We used this project to educate me on the internal concepts for technical committee management, association structure and stakeholder relationship management. I was fortunate to have been working at SESKO during this period and to have the topic highlighted for all employees. Over time, I became more involved with this project and worked closely with our Office Manager and the external consultant to help bring phase 1 to fruition.

Being a small organisation, SESKO infrequently needs to purchase new devices and the need for IT support is also quite limited. The local server environment presented the main challenge for me, due to restricted access throughout the period of my contract. I worked closely with my colleagues responsible for the IT services and they involved me with all ongoing issues during this period. I found the experience to be very motivating and the reassurance of having capable colleagues to be enjoyable. The implementation of an incident report system

and other IT reports helped to formalise the information exchange beyond sending internal emails. Transparency was achieved using an IT support channel on SESKO's RTC Slack. While these changes were partially resisted at the beginning, I am happy to report that they have come into common use. Figure 14: Slack Analytics (Slack 2020) is taken from the administrative panel for SESKO's workplace for enterprises on the Slack website.

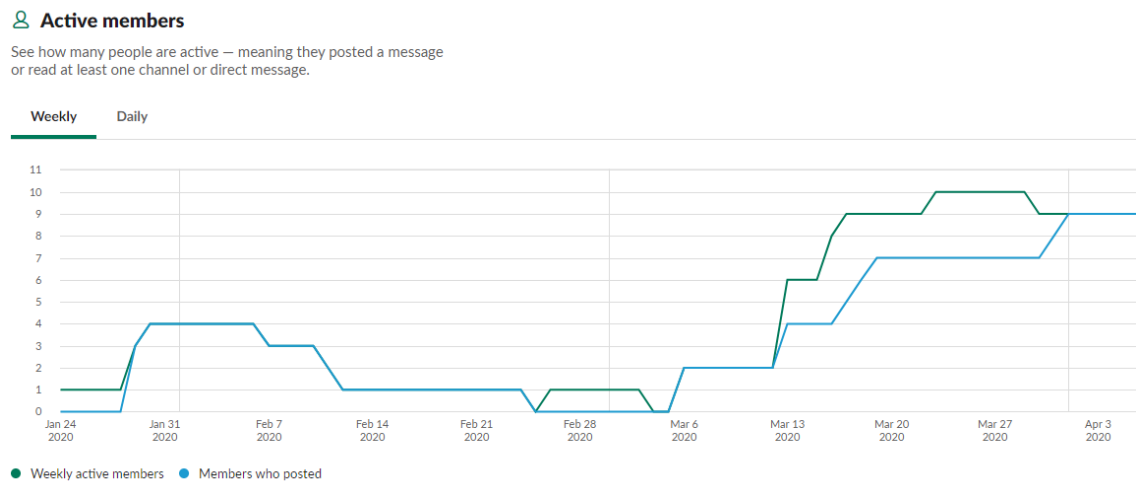


Figure 14: Slack Analytics (Slack 2020)

4.2 Teamwork

My experience of moving from an external contract basis of employment, to that of a full-time internal employee has been very pleasant and smooth. The adjustment period was made easy because of the collaborative nature of office life at SESKO, whereby great emphasis is placed on meetings and the consensus of the community. While the monthly office meetings represent the primary forum for discussion and decision making, I put my own emphasis on introducing new ways of communicating based on my own experiences. Have the trust of my colleagues helped me greatly to have my voice heard and my previous career in communications was recognized.

While, at times, I found the process to be quite deliberate, the nature of working for an association requires decisions not always to be made in a similar manner to that in the private sector. My induction training, and continued help of my colleagues, has helped me greatly to orientate my decision-making in line with SESKO's expectations.

4.3 Adaptive work in career development

Often, I was faced with obstacles during these three months, some were due to my transition from external employee to internal and others related conflicting schedules with colleagues which I needed to work alongside. In many cases, it was necessary to revise my initial plan

and adjust or reschedule to a later time. Only by working closely with my supervisors for each task, was I able to resolve these and make a best possible solution. Most notably my induction training on the practical implementation of standards and access control to SESKO's systems and IT infrastructure.

Initially, I had hoped to start working on an IT audit and begin assessing vulnerabilities and access control early on, then later become more involved with technical committees. This was recommended inversely by the Development Manager to ensure I would gain an understanding of the standardization practices is essential for all employees at SESKO as the core function of the association is to provide value for technical experts. While most of my primary tasks were focused on towards developing the ICT systems and security, it was necessary to complete my induction into the field of standardization first. This was to ensure all work efforts would be oriented towards the best interests of the professional association. Additionally, as the ICT Administrators were unavailable for the first few weeks of my employment period, it was necessary to wait for them to address access control issues. This would ensure I had best knowledge and availability of the ICT Manager when working on the system administration tasks and reporting on IT vulnerabilities.

4.4 Effectiveness in documenting my diary

I feel the collection of daily information for this paper went well. It helped to have decided beforehand what data method would be used for collecting information. The Kaizen PDCA cycle, which I created, helped to define clearly what questions I needed to answer. Having a clear plan for each week beforehand helped greatly, however this needed to adapt to changes later during the 10 weeks. I found using bullet points to be helpful while making notes during the workday and placed less stress on recording all actions daily.

It was essential to decide early on which software tools I would use for documentation. This was to ensure information was synchronized across multiple devices, work laptop, private laptop and mobile devices. Microsoft OneNote proved more than capable for this task allowing me to collect information from all sources quickly and consolidate it for writing. As SESKO did not have licenses for Microsoft Office 365, I did not use Word on my work laptop as the document version history feature was unavailable.

Having colleagues willing to support me throughout the process greatly impacted my effectiveness in learning what was required to accomplish my tasks. Their participation in my induction training and the discussions held throughout the period helped to guarantee my decision-making was valid. I also benefited from having taken online courses during my time at Laurea, in so that I was familiar with researching topics and material through the online library system available to students. I would have enjoyed having more opportunities to discuss

the thesis process with my peers and teammates in Laurea, however this was not easily arranged due to social distancing. I was fortunate to have a student teammate to discuss with and she proved invaluable during this thesis.

4.5 Covid-19 influence on the thesis

The pandemic has changed the way in which standardization work is accomplished for SESKO and will continue to influence working life in general for the foreseeable future. Remote team collaboration software has been pushed to the forefront of business during this period and SESKO was poised in a perfect situation to overhaul technical committee practices and organisational policies. Contact meetings were not possible, and funds earmarked for travel could be reallocated to new development projects. The introduction of new tasks and project possibilities allowed me to expand my influence on the organisation. And, through careful consensus with my colleagues, we managed to adapt to the necessary changes. These changes are ongoing and will continue to develop for the remainder of the year.

Laurea University of Applied Sciences officially switched to remote working practices on the 15th of March 2020. Because of this, I experienced limited access to material and peer assessment as social distancing efforts came into effect in the middle of my diary collection period. Laurea's preparedness for this switch allowed me to continue with the thesis, moving meetings with my supervisor over to Microsoft Teams and putting more emphasis on the Finna online library access.

I was to take part in networking events throughout the thesis period, to further my knowledge and extend my reach within the industry. While I was able to visit the fair in Jyväskylä and participate in three national technical committee meetings, I was unable to attend further meetings with electrotechnical experts due to the early self-isolation efforts made to try and stem the infection through social distancing. This also impacted my training to the standardization field as I was unable to visit partner organisations like SFS and my trip to the CCMC training days in Brussels was cancelled.

On a personal note, this has been an extremely trying time and only through the support of my family and friends have I been able to continue developing this paper. Looking back now, I would not change my decision to complete this paper despite what is going on around me. If anything, this has presented me with a unique opportunity to test my skills and challenge me.

4.6 Most valuable lessons learned

Having worked independently for some years, it was both challenging and enjoyable to learn to rely on others in the workplace again. My role during the meetings throughout this thesis

period was quite different, in that in my previous career I most often ran all meetings. Improving my understanding on various limitations and having patience towards others was important to develop. Also, the professional development of my Finnish language skills will help me greatly in the future.

Secondly, gaining a much deeper appreciation for the implement international electrotechnical standards in Finland and the practicalities of working directly for a professional association has introduced a new experience for me. Perhaps someday in the future, I will also be able to take responsibility for a technical committee within my field of interest.

4.7 Looking ahead

I signed a new work contract with SESKO, which came into effect immediately preceding the diary collection period. Due to my efforts, and the requirements for change within the organisation, I have been appointed the title ICT Developer and agreed on a new job description with the Managing Director. I will be responsible for all office systems and SaaS development for the organisation. The ITAM project will be fully actualized during 2020 and I will be appointed process owner for the LIME CRM project once the handover contract is signed in May 2020. I am currently leading the Microsoft 365 project and developing it with an outsourced partner.

I intend to continue using some of the methods practices during this thesis, namely the Kaizen PDCA cycle for project development tasks and continual improvement projects, as well as tools like Microsoft OneNote for information gathering. As SESKO will be implementing Microsoft 365, I will also consider expanding some lessons learned to help benefit my colleagues and the organisation.

References

Printed

Aven, T. 2011. Knowledge in Risk Assessment and Management. Hoboken, Ney Jersey: John Wiley & Sons, Inc.

Bosworth, S. Kabay, M. 2014. Computer Security Handbook. Hoboken, Ney Jersey: John Wiley & Sons, Inc.

Boud, D. Garrick, J. 1999. Understanding Learning at Work. Abingdon, Oxfordshire: Routledge

Dawson, C. 2011. Projects in Computing and Information Systems. Harlow, Essex. Pearson Education Limited

Garrett, JJ. 2002. The elements of user experience. Thousand Oaks, CA: New Riders Publishing

Krutz, R. Vines, RD. 2003. The CISM Prep Guide. Indianapolis, Indiana: Wiley Publishing

Lehmann, C. 2012. Strategy and Business Process Management. Boca Raton, Florida: CRC Press

Payne, A. 2005. Handbook of CRM. Abingdon, Oxfordshire: Routledge

Weidman, G. 2014. Penetration Testing. San Francisco, CA: No Starch Press, Inc.

Electronic

Accountor Finago Oy. 2017. Procountor Mini. Accessed 04.03.2020. <https://finago.com/fi/tuotteet/procountor/mobiili/procountor-mini/>

Adobe. 2016. Adobe support community. Accessed 17.03.2020. <https://community.adobe.com/t5/acrobat/pdfmaker-office-com-addin-will-not-stay-enabled/td-p/8659961>

American Society for Quality. 2006. PDCA Cycle. Accessed 31.01.2020. <https://asq.org/quality-resources/pdca-cycle>

Arter. 2018. IMS-Software. Accessed 15.01.2020. <https://www.arter.fi/en/software/ims-software/>

Buchanan, S. 2013. Improve Your IT Asset Management Controls.... Accessed 27.01.2020. <https://www.itassetmanagement.net/2013/09/06/improve-asset-management-controls-face-unbudgeted-costs/>

Carman, Z. 2017. Stop Wearing So Many Hats and Watch Your Productivity Soar. Accessed 04.04.2020. <https://www.entrepreneur.com/article/293031>

CEN. 2020. Who we are. Accessed 31.01.2020. <https://www.cen.eu/about/Pages/>

CEN-CENELEC. 2020. Brief News. Accessed 11.03.2020. https://www.cen-cenelec.eu/news/brief_news/

CENELEC. 2011. Who we are. Accessed 26.01.2020.
<https://www.cenelec.eu/aboutcenelec/howeare/>

Comparesoft Ltd. 2019. IT Asset Management Software. Accessed 16.03.2020. <https://comparesoft.com/it-assets-management-software/>

Dark Reading. 2020. Homepage. Accessed 10.02.2020. <https://www.darkreading.com/>

Davis, C. 2016. Server Basics 2016 - Setup Entire Domain. Accessed 23.03.2020. <http://pc-adicts.com/download-server-2016/>

Dropbox. 2017. Privacy and Data Protection Whitepaper. Accessed 20.01.2020.
https://www.dropbox.com/en_GB/security/GDPR/

FastNeuron Inc. 2020. BackupChain User Manual. Accessed 28.01.2020. <http://backupchain.com/en/backupchain/>

Finland. 2001. Personal Data Act. Accessed 24.01.2020. <https://www.finlex.fi/en/laki/kaanokset/1999/en19990523/>

Finnair. 2020. Finnair adjusts its European traffic in April due to the impacts of the coronavirus. Accessed 11.03.2020. <https://company.finnair.com/en/media/all-releases/news?id=3595630>

Gartner. 2017. It Asset Management (ITAM). Accessed 15.01.2020. <https://www.gartner.com/en/information-technology/glossary/it-asset-management-itam/>

Google. 2013. QR Code Generator. Accessed 04.02.2020. <https://www.the-qrcode-generator.com/>

Henry J. Kaiser Family Foundation. 2020. The U.S. Government and the World Health Organization. Accessed 12.02.2020. <https://www.kff.org/global-health-policy/fact-sheet/the-u-s-government-and-the-world-health-organization/>

Learning Centre. 2010. Reflective Writing. Accessed 26.01.2020. <https://student.unsw.edu.au/reflective-writing>

Lime Technologies. 2020. CRM with a twist. Accessed 15.01.2020. <https://www.lime-technologies.com/lime-crm/>

IEC. 2011. Standards development. Accessed 26.01.2020. <https://www.iec.ch/standardsdev/publications/is.htm>

IEC. 2011. Secretary / Assistant Secretary. Accessed 26.01.2020. <https://www.iec.ch/standardsdev/resources/tcroles/>

IEC. 2013. About the IEC. Accessed 26.01.2020. <https://www.iec.ch/about/>

IEC. 2014. Members & Experts Tools & services. Accessed 31.01.2020.
<https://www.iec.ch/tools/>

IEC. 2016. IoT 2020: Smart and secure IoT platform. Accessed 06.02.2020.
<https://www.iec.ch/whitepaper/iotplatform/>

IEC. 2016. Verbal forms for expressions of provisions. Accessed 11.02.2020.
https://www.iec.ch/standardsdev/resources/draftingpublications/directives/principles/verbal_forms.htm

IEC. 2019. IEC TC 61 Strategic Business Plan. Accessed 24.02.2020. <https://www.iec.ch/public/miscfiles/sbp/61.pdf>

ISO. 2012. ISO Members. Accessed 26.01.2020. <https://www.iso.org/members.html>

ISO. 2017. ISO/IEC JTC 1/SC 27 Information security, cybersecurity and privacy protection. Accessed 27.02.2020. <https://www.iso.org/committee/45306.html>

ISO. 2019. ISO/IEC 27018:2019 Information technology. Accessed 20.01.2020.
<https://www.iso.org/standard/76559.html>

Johns Hopkins University. 2020. Coronavirus COVID-19 Global Cases. Accessed 14.02.2020.
<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

Jyväskylän Messut. 2020. Info - Sähkömessut 2020. Accessed 03.02.2020.
<https://www.sahkomessut.fi/en/info-2/>

Microsoft. 2016. Group Policy Overview. Accessed 23.01.2020. [https://docs.microsoft.com/en-us/previous-versions/windows/it-pro/windows-server-2012-r2-and-2012/hh831791\(v=ws.11\)](https://docs.microsoft.com/en-us/previous-versions/windows/it-pro/windows-server-2012-r2-and-2012/hh831791(v=ws.11))

NIST. 2016. Security Assurance Levels. Accessed 11.02.2020. https://tsapps.nist.gov/publication/get_pdf.cfm?pub_id=906330

NIST. 2018. Special Publication 1800-5 IT Asset Management. Accessed 16.03.2020.
<http://doi.org/10.6028/NIST.SP.1800-5>

Lime Technologies. 2020. Lime CRM. Accessed 15.01.2020. <https://www.lime-technologies.com/lime-crm/>

Rose, C. 2017. Bill Gates and Warren Buffett. Accessed 9 December 2018. <https://charli-erose.com/videos/29774>

Rouse, M. 2015. What is Information Technology. Accessed 15.02.2020. <https://searchdata-center.techtarget.com/definition/IT>

SESKO. 2009. First 50 years of SESKO. Accessed 31.01.2020.
https://www.sesko.fi/en/about_us/first_50_years_of_sesko.

SESKO. 2015. Uusiutuvat energiamuodot ja tulevaisuuden energijärjestelmät. Accessed 25.01.2020. https://www.sesko.fi/standardit/standardoinnin_aihealueita/uusiutuvat_energiamuodot_ja_tulevaisuuden_energiajarjestelmat

SESKO. 2018. SESKO Privacy Policy GDPR. Accessed 31.01.2020.
https://www.sesko.fi/en/about_us/gdpr/

SESKO. 2019. Homepage. Accessed 25.11.2019. <https://www.sesko.fi/en/>

SESKO. 2020. SESKO Coronavirus Bulletin. Accessed 16.03.2020. https://www.sesko.fi/sesko-akatemia/uutiset/seskon_koronavirustiedote.1941.news/

SFS. 2006. Finnish Standards Association SFS. Accessed 31.01.2020. <https://www.sfs.fi/en/>

SFS. 2012. Publications and services. Accessed 27.03.2020. https://www.sfs.fi/julkaisut_ja_palvelut/palvelut/tietopalvelut/kirjasto/finsta

Slack Technologies. 2013. Where work happens. Accessed 08.02.2020. <https://slack.com/>

Slack Technologies. 2020. Analytics overview. Accessed 03.04.2020.
<https://slack.com/intl/en-fi/enterprise/>

System Oy. 2018. Visitor management system RESPA. Accessed 31.01.2020. <https://system.fi/en/solutions/visitor-management-system-respa/>

Techopedia. 2019. Information and Communications Technology (ICT). Accessed 29.03.2020.
<https://www.techopedia.com/definition/24152/information-and-communications-technology-ict/>

THL. 2020. Coronavirus COVID-19 - Latest Updates. Accessed 10.02.2020.
<https://thl.fi/en/web/infectious-diseases/what-s-new/coronavirus-covid-19-latest-updates/>

Tonias, D. 2018. Demote a Windows Server 2016 Domain Controller. Accessed 23.03.2020.
<https://www.dtonias.com/demote-domain-controller-windows-server-2016/>

WHO. 2020. Coronavirus disease (COVID-2019) situation reports. Accessed 10.02.2020.
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/>

WHO. 2020. WHO Director-General's opening remarks at the media briefing on COVID-19. Accessed 11.03.2020. <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>

YLE. 2020. 25 uutta koronavirustartuntaa todettu Suomessa. Accessed 10.03.2020.
<https://yle.fi/uutiset/3-11251043>

Unpublished

Honkala, A. Group Manager. Coffee break with author. 25.03.2020. Helsinki. Personal communication

Rathod, P. Lecturer. Cybersecurity R0321-3001. 26.08.2019. Espoo. Study unit

Roche, D. VM VirtualBox setup. Created by author. 01.12.2019. Espoo. Demonstration videos

Vreeswijk, F.W.P. General Secretary & CEO. Corona Virus Guidelines. Issued by IEC. 30.01.2020. Email correspondence

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Appendix 1: Job description

JOB DESCRIPTION
2019-12-12

Derek Roche

Job title: Security Assistant and Group Manager Assistant

1

Mapping vulnerabilities in SESKO activities for risk analysis. Reports of system and programmes to Office Manager and reports of SESKO's hardware to IT Administrators.

2

Integrated Management System (IMS-system): familiarizing, feed-back, updating, completing and developing, possible improving proposals. Mentoring of system by Office Manager and mentoring of processes by all technical committee Group Managers.

3

Updating the PCs, penetration tests, prepare new PCs in operational readiness. Mentoring by IT administrator and reports to IT Administrator.

4

English consultation: speech, documents, web pages etc.

5

Participation meetings appointed by Managing Director and Group Managers.

6

Other tasks appointed by Managing Director.

Appendix 2: Procedure report



Procedure report

Assignment name: IEC document links

Tuesday, February 25, 2020

Person: Ari

Findings and descriptions:

Common problem reported by two group managers, where links attached to word documents were not working correctly. Files needed to be saved as PDF in order to have online documents from the IEC website linked correctly.

Initial inspection indicated both Word and PDF links are correct and identical.

Link copied from PDF

https://documents.iec.ch/ords/f?p=700:558:3042544842913:::P558_FILE_PATH,P558_FILE_NAME,P558_DOC_PIECE_ID:61,5998e.pdf,335219

Link copied from Word

https://documents.iec.ch/ords/f?p=700:558:3042544842913:::P558_FILE_PATH,P558_FILE_NAME,P558_DOC_PIECE_ID:61,5998e.pdf,335219

IEC server is returning with a 500 internal server error when clicking on the Word link:

Link redirected from Word document link

https://documents.iec.ch/sso/iecsso?state=NgRqZBuva4SDtYUjB7gx1mBT8BY&code=eyJhbGciOiJIaXciLCJlbmMiOiJBMjI4Q0JDLUhTMjU2In0..PoZqcMwYk-rEzKUKIoKoWQ._L75LEoj-qmbgiqm-Jsa2ai-7rjWjpRnJWDusmFdrCq6UDllyBsp1tSjLcfc7U4YyhCXEDsNylbuiaPJ6L_soFCPzHaRzNGEidHOYKQIBRRfvtO41bcs5d2wO3vOT4xMMgxtelaGqFN7jNIBH3-VgrR4K1rtWaMglfKf7ePr7PUNIGy9aykYEt6pwRDNXgP1c0VgRRmEqSdAhV92B6glP0vMBEG_rXc-JvNVZ-2BZl7_UZ-q-v52zqlCwWs0y6p.QFRQ6RfEpjNwn4n4jBfvhw

Preventative recommendations:

Apply Microsoft Easy Fix 50655 to all SESKO laptops.

Actions / resolutions:

Discovered an issue in relation to Windows and Office:

Error message when selecting hyperlink in Office: "Cannot locate the Internet server or proxy server"

<https://docs.microsoft.com/en-us/office/troubleshoot/error-messages/cannot-locate-server-when-click-hyperlink>

Applying a hotfix MicrosoftEasyFix50655 corrects the issue.

Download: [Download](#)

Appendix 4: ITAM Excel Datasheet

	A	B	C	D	E	F	G	H	I	J	K	L
	Name	Description	IT asset Type	Estimated Cost	Last Invoice	Number of Licences	Purpose	Date purchased	Purchased by	Date to renew	Contract location	Responsible Person 1
2												
3												
4												
5												
6												
7												
8												
9												
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Licences | Registry Access Control | **Datasheet** | SO | Combo lists | Hardware Audit | Peripherals Audit | Information Services

