Sustainability certificates in higher education

Paula Hokkanen

Bachelor's thesis
May 2022
School of Business
Degree Programme in International Business

jamk | Jyväskylän ammattikorkeakoulu
University of Applied Sciences

jamk

Description

Hokkanen Paula

Sustainability certificates in higher education

Jyväskylä: Jamk University of Applied Sciences, May 2022, 65 pages.

School of Business. Degree Programme in International Business. Bachelor's thesis.

Permission for web publication: Yes

Language of publication: English

Abstract

The thesis researched the usage of sustainability certificates in higher education, in Finland and in Europe. The objective was to suggest which certificates were suitable for Jamk University of Applied Sciences' Sustainable Development working group, who was the commissioner. The literature review consisted of definitions, different certifications and environmental management systems and their use in higher education.

The research method was a qualitative multiple case study with semi-structured interviews. The data collection consisted of primary and secondary data. The questions were framed using a qualitative cost-benefit analysis perspective. The case example universities were the University of Jyväskylä, LUT Universities and TUNI Universities from Finland, and Glasgow Caledonian University. Fairtrade, EcoCompass and OKKA foundation were also interviewed. The main certificates researched were Fairtrade University, EcoCompass, Green Office, Global Compact, as well as ISO 14001 and internal EMS as supports. Sustainability networks, rankings and commitments were also reviewed. The results were analysed using NVivo 11/12 Pro.

The results showed that the Fairtrade University and EcoCompass certifications are the best options cost-benefit wise for higher education institutes. Green Office is well-known globally, but it, and the others, were unsuitable for various reasons. The interviewee consensus was that being certified is a major requirement if a university wishes to be as sustainable as possible. However, there was a definite lack of overall options for higher education regarding sustainability certificates. As of now, there is no option to certify the sustainability of the education itself.

Other limitations of the research included time constraints, the difficulty of the terms and the field of certifications, the emergence of new information and acquiring the interviewees or their suitability. Further research is needed on multiple additional certifications, their changes and the possibilities of expanding some certificates to higher education in the future.

Keywords/tags (subjects)

Certification, environmental management system (EMS), sustainable development, sustainability in higher education

jamk

Kuvailulehti

Hokkanen Paula

Kestävän kehityksen sertifikaatit korkeakouluissa.

Jyväskylä: Jyväskylän ammattikorkeakoulu. Toukokuu 2022, 65 sivua.

Liiketalouden ala. International Business/Tradenomi. Opinnäytetyö AMK.

Julkaisun kieli: Englanti

Julkaisulupa avoimessa verkossa: Kyllä

Tiivistelmä

Opinnäytetyön tarkoituksena oli tutkia mitä kestävän kehityksen sertifikaatteja korkeakouluissa on käytössä, niin Suomessa kuin Euroopassa. Työn päämääränä oli ehdottaa sopivaa sertifikaattia hankittavaksi Jamkille. Työn tilaajana toimi Jamkin Kestävän Kehityksen työryhmä. Kirjallisuuskatsaus koostui kestävän kehityksen käsitteiden määrittelystä, eri sertifikaateista ja ympäristöjärjestelmistä sekä niiden käytöstä korkeakouluissa.

Tutkimusmenetelmänä oli kvalitatiivinen monitapaustutkimus, joka toteutettiin haastatteluilla. Aineistonkeruussa hyödynnettiin primääri- ja sekundääriaineistoa, ja haastattelukysymykset muotoiltiin kvalitatiivisen kustannushyötyanalyysin pohjalta. Tutkimuksen pääasiallisina tapauksina toimivat Jyväskylän yliopisto, LUT yliopistot ja Tampereen korkeakouluverkosto Suomesta, sekä Glasgow Caledonian yliopisto. Tutkittavat sertifikaatit olivat Reilun kaupan korkeakoulu, Ekokompassi, Green Office ja Global Compact, sekä ISO 14001 ja sisäinen ympäristöjärjestelmä taustatietoina. OKKA-säätiön sertifiointi ja Vihreä lippu olivat lisäselvityksen kohteina kansainvälisen EcoCampus järjestelmän käytön vuoksi. Näiden lisäksi myös erilaiset kestävän kehityksen verkostot, sitoumukset ja kilpailut tulivat esille. Tutkimustulokset analysoitiin NVivo 11/12 Pro ohjelmistolla.

Tutkimuksen tulokset osoittivat, että Reilun kaupan korkeakoulu ja Ekokompassi ympäristöjärjestelmä/sertifikaatti ovat kustannus-hyöty aspekteiltaan parhaat vaihtoehdot suomalaiselle korkeakoululle. Green Officen suurin hyöty on sen globaali tunnettuus, mutta sen muut hyödyt jäävät vähäisiksi. Haastateltavien mukaan kolmannen osapuolen sertifiointi on välttämättömyys, mikäli korkeakoulu pyrkii olemaan kestävän kehityksen mukainen. Sopivien vaihtoehtojen määrä korkeakouluille on kuitenkin erittäin rajallinen, esimerkiksi opetuksen kestävyyden sertifiointiin ei ole tällä hetkellä mahdollisuutta.

Tutkimuksen muina rajoitteina olivat aikataulut, tutkimusaiheen sekavuus ja termien määrittely, uuden tiedon esilletulo ja haastateltavien saaminen/heidän sopivuus. Jatkotutkimuksiksi nousi sertifikaattien merkitys sidosryhmille, lisätietojen keräys yksittäisten sertifikaattien muutoksista ja tulevaisuuden mahdollisuuksista laajentaa joitakin sertifikaatteja myös korkeakoulukentälle.

Avainsanat (asiasanat)

Sertifiointi, ympäristöjärjestelmä, kestävä kehitys, kestävyys korkeakouluissa

LIST OF ACRONYMS

CSR = Corporate Social Responsibility

EMAS = Eco-Management and Audit Scheme

EMS = Environmental Management System

FT = Fairtrade

GC = Global Compact

GCU = Glasgow Caledonian University

GO = Green Office

HEI = Higher Education Institute

ISO = International Standards Organisation

JYU = University of Jyväskylä

LUT = Universities of Lappeenranta/Lahti and LAB UAS

NGO = Non-Governmental Organisation

PRME = Principles of Responsible Management Education

SD = Sustainable Development

SDGs = Sustainable Development Goals

UAS = University of applied sciences

TUNI = Tampere University Community: University of Tampere and TAMK UAS

UN = United Nations

VEMS = Voluntary Environmental Management System

VSS = Voluntary Sustainability Standard

Contents

Figures

Tables

1 Introduction

1.1 Background of the research

Every educational institute in the world has a major responsibility ahead of them: to educate new generations of sustainably aware youth, who will be the future policymakers and competent workforce. Higher education institutes (HEIs) have an even more important role in this as their main purpose is to teach research, innovative thinking and working life professionals (European University Association, 2018). However, first they need to evaluate what sustainability is, what it means to them, and how to implement it in each department. To help Finnish higher education in this mission, their respective guiding organisations have set policies and guidelines regarding sustainability.

The Rectors' Conference of Finnish Universities of Applied Sciences **Arene ry** (*Ammattikorkeakoulujen rehtorineuvosto*) is an organisation that enables collaboration between Finnish universities of applied sciences (Arene, n.d.). It consists of the rectors and the schools themselves and in the meetings, they discuss matters relating to current topics and create common educational policies. Arene (2020) published the *Sustainable, responsible and carbon-neutral universities of applied sciences* programme, which serves as the guide to implement sustainability and responsibility in the universities of applied sciences. The programme follows the United Nations' 2030 Agenda for Sustainable Development, and the guidelines set by the Finnish Ministry of Education and Culture (*Opetus- ja kulttuuriministeriö*). Universities Finland **Unifi ry** (*Suomen yliopistojen rehtorineuvosto*) is a similar rectors council to Arene. They have also published their guiding programme that universities follow. It includes 12 'theses' that relate to sustainable development and responsibility (Unifi, n.d.).

Even though these two organisations help HEIs by setting goals and guides, it is up to the schools themselves to implement the practices. Third-party certifications are one possible option for organisations to evaluate whether their work towards sustainability is going in the right direction. The most common place to notice certifications is in the grocery store. There are multiple sustainability-related certifications for food products, such as coffee, tea, chocolate, and fruits. Just recently, the NGO Eetti (*Eettisen Kaupan Puolesta ry*) published a blog post to highlight some issues in chocolate certifications, which about companies using their own labels instead of third

party governed certifications, which might confuse consumers (Eetti, 2022). Services and entire industries have their certifications and governing systems as well, such as the ISO quality standards (defined later). However, these might require deeper, industry-specific knowledge to fully understand. As the topic of different certifications, audit systems and their definitions is quite vast and complicated, it will be explored more thoroughly in the second chapter.

This thesis was commissioned by the Sustainable Development team of Jamk University of Applied Sciences (*Jyväskylän ammattikorkeakoulu*). It was founded in 1994, and currently has around 8500 students, of which over 1500 graduate each year (Jamk, n.d.). Jamk has three campuses in Jyväskylä, and the Institute of Bioeconomy is located in Tarvaala, Saarijärvi. In 2020, Jyväskylä was the fourth most popular student city in Finland, and every third person living in Jyväskylä is a student (Studentum, 2020). In addition to Jamk, other HEIs to operate in Jyväskylä are Humak University of Applied Sciences and the University of Jyväskylä. The commissioner would like for Jamk to acquire an external certification to guide the internal sustainability work. Every UAS in Finland needs to create and set strategies for carbon neutrality and sustainability work, including Jamk. Even though Arene has set guidelines for this with their latest programme, the institutes need to create their own specific policies instead of copying Arene's overall program.

1.2 Preliminary research

The thesis process started in autumn 2021 with a preliminary research project. The original commission was narrowed down to suit a tighter schedule, thus excluding foreign universities. The project ended in December. This thesis continues where the project left off. The objective of the preliminary research was to identify a few case example universities/their certifications and conduct interviews. The case universities for the preliminary research were LUT Universities and the University of Jyväskylä. Their interview responses and the results will be analysed in the results chapter, as they serve to answer the research question.

Some other findings and suggestions of the preliminary research had already been realised before the start of this thesis. The results included other sustainability measures that a university could take. These regarded, for example, the catering services and compensation measures. They were excluded from this research due to another ongoing research about these measures. Different networks were also introduced, and there was a recommendation that Jamk should join the Finn-

ARMA network. Finn-ARMA works towards helping universities reach carbon neutrality and address other sustainability issues as well. However, their work became known to the sustainability team in a meeting early this year and there was no need to recommend it anymore. Discussion with the commissioner after the preliminary project highlighted some additional motivation, such as committing the students and manager level to the sustainability work, and how to enhance the ecological 'handprint' that Jamk creates.

1.3 Motivation

The importance of this research is evident in the current trends in the education sector. The Ministry of Education and Culture (2021) has an ongoing project, called *Sustainable Growth Programme for Higher Education in Finland* that launched in 2021. It aims to research ways in which higher education and its research can fuel the sustainable growth of the Finnish economy. Thus, the role of universities in developing their sustainability is important on the national level.

Jamk has already taken multiple steps towards sustainability. There is an official Sustainable Development working group (later SD group) (*Kestävä Kehityksen työryhmä*), that has been working on sustainability-related issues for two years. They have required research on the current sustainability certificates and environmental systems that are in use in higher education in Finland. The team wishes to know which certificates could support the sustainable development work of Jamk, and at the same time might raise the brand image in the eyes of stakeholders and future students. Like many universities, Jamk is also updating its sustainability websites, thus this research and its resulting recommendations will benefit the improved site. As was evidenced by Puurula et al. (2022), websites are one element to look at when evaluating sustainability in universities. For the rest of this thesis, sustainability certificates, systems and standards are referred to just as certificates.

The research project was considered suitable to undertake as student work, either as a minor project or a thesis. The goal was that the results could be used by every HEI in Finland, in addition to Jamk, and since the language of the thesis is English, the research is available for foreign universities as well. There was some initial data on certificates in Knuuttila's (2021) publication, who is the main commissioner. ISO standards were excluded from the valid options from the start.

As I am the student representative of Jamk's SD group, I was already aware that there was a definite need for a sustainability certificate for Jamk. This knowledge served as the basis of my motivation. I had no deeper knowledge of certificates but did know about, for example, Fairtrade certification, and other common labels, such as the Nordic Swan Ecolabel (*Joutsenmerkki*), and ISO standards. I wanted to challenge myself and do the thesis for a commissioner, and research something I did not have vast experience on. I noticed the importance certificates play in organisations in the preliminary research. As the need to transform businesses to be more sustainable is not going to disappear, this information will serve me well after graduation.

1.4 Research questions

The initial research problem was that Jamk's Sustainable Development working group did not know which sustainability certificates they should aim to acquire. There was a need to research the current situation in higher education institutes (HEIs) in Finland and Europe, but the group had not had the time or resources for it yet. They wanted to know the first-hand experience of using these, thus interviews were evident from the start. The objective was to get a comprehensive view of the certificates currently in use. In addition, the objective was to find out their benefits, demands, requirements, and costs for the university. Based on these findings, the result should be a few recommendations of suitable options.

The main research question was

- **Which sustainability certificates would be suitable options for a Finnish higher education institute?**

With supporting questions

- **What type of sustainability certificates are used in higher education institutes?**
- **What is their cost-benefit relationship for the acquiring institute?**

This research question was chosen because it was the main question relating to the research problem and objective. As the results are valid for a wider audience than Jamk, the question was phrased to be more general. The supporting questions serve as a build-up to answer the main question, and they will be evident in the data that needs to be gathered before answering the main question.

WWF (World Wide Fund for Nature) Suomi (2019) has compiled a list of points to review when an organisation is considering obtaining an environmental certificate. They are as follows:

- Are there possible industry-specific demands for external certification?
- Is the goal to change organisational customs on a wider scale (such as recycling, transportation, acquisitions…) or is the certificate needed only for the property?
- Is the organisation a factory, office, or something else?
- Does the system need to offer chances for networking?
- How does the organisation want to communicate in participating in the system (internally or externally)?

These background questions served as a basis for formulating the interview questions to support the research question. In the preliminary research, the WWF questions were evident in the interview participants' answers, thus they proved to be relevant to the study. Since the commissioner wanted to have primary data on the options, the thesis used interviews. This set the method to be qualitative research. The interview questions focused on a diverse need for information on the benefits, requirements and costs of the certificates, which set their perspective as a qualitative cost-benefit analysis (no numerical data gathered).

1.5 Structure of the thesis

The first section after the introduction is the literature review. It starts with defining sustainable development, and briefly outlining the history of the concept. As it is the driving force behind sustainable development goals, which in turn guide the sustainability work in universities, the literature moves on to those. This section also discusses some key highlights and issues in the current sustainability work in higher education. The review then proceeds to sustainability-related systems, certificates and standards, and their role in universities and the history in short. The core level of the review is how these systems have been used in higher education.

The literature review is followed by the methodology chapter. The thesis is based on qualitative research, and it aims to make a qualitative cost-benefit analysis of the optimal certificates that a university could use. Data collection and analysis methods will be reviewed in depth. The next part is the results chapter, in which the key options are introduced based on the research findings. As some data was already gathered in the preliminary research, these and the new data are in their

respective sections. The results chapter ends with answering the research question. The final part is the conclusion and discussion chapter, where the findings are summarised, and the analysis of the suitable options is discussed. The thesis ends with a reflection on the limitations of this research and suggestions for future research.

2 Literature review

The literature review was done systematically. First, relevant topics, certificates and systems were identified. Then the relevant research was found using article databases, library searches and databases, Google Scholar, and organisational webpages. The sources that seemed suitable based on the title were listed in one file. Then by reading the abstracts and conclusions the amount was minimised with the process of elimination. Over a hundred articles and sources were read to get an overall picture of the up-to-date research. The focus was on the latest literature, but some older sources were also included where the information remained relevant.

There were some difficulties in accessing the literature as Jamk did not have access to the proper scientific journals containing the relevant research. However, access to the sources was gained through a friend studying at a university. Much of the previous research focused on ISO standards (defined later), but since many other EMSs (environmental management systems) are based on that, it was justified to research findings using the ISO standard. It was difficult to determine the correct search words and key terms as the topic is relatively wide, and the definitions are not standardised. Certificates, standards, systems, audits, accords, EMS, VEMS and VSS and their apparent differences became evident in the search process (each term is defined in their sections).

In the following section, the literature starts with defining sustainable development and then moves on to the Sustainable Development Goals (SDGs) and sustainability in universities. As sustainability is mainly implemented using the SDGs as a framework, the two go hand in hand. External systems are of great help in implementing sustainability, so the literature review focuses on certificates and environmental management systems. The last section highlights university-level research on using EMSs. As there is no practical difference between academic universities and universities of applied sciences for this thesis, the term university is used to define both types of institutes, unless specified otherwise.

2.1 Defining sustainable development

The current most popular definition of sustainable development was coined in 1987. That year the World Commission on Environment and Development (WCED), led by the chairman Gro Harlem Brundtland, published the report "Our Common Future" (also known as the Brundtland report), which defined sustainable development and actions. As quoted by Brundtland in the report, the widely accepted definition still stands today: *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs".* (WCED, 1987, p. 41.)

According to multiple authors and sources, sustainable development today has been recognised to consist of three perspectives (also known as dimensions, aspects and pillars), which are *environmental*, *economic*, and *social* sustainability (see e.g. Harris, 2000; Pawłowski, 2007; Sitra, n.d.). However, these views are not fully agreed upon, and over the years multiple perspectives have been introduced. Already in 1991, Redclift argued that sustainable development is too vague a term (1991), which also makes it appealing. He stated that the three basic dimensions are the economic, political, and epistemological dimensions. Pawłowski (2007), on the other hand, proposed that in addition to the first-mentioned basic three, there could be more perspectives included, such as moral, technical, or legal. Culture has been one dimension to be added into the mix as well (see e.g. Nurse, 2006; Sabatini, 2019). In Finnish, the term social-cultural sustainability (*sosiokulttuurinen kestävyys*) is used (Ympäristöministeriö, n.d.), although in some cases, it is more closely related to sustainable tourism and travel (Laaninen & Linte, 2019). Finally, Pfeffer (2010) argued for including the human factor into the overall sustainability discussion, and that has been suggested in a few other cases as well.

Johnston et al. (2007) estimated that there are over 300 definitions of sustainability. They describe the term as being devalued from the original Brundtland definition, to suit the needs of whichever economy wanted to use it for their business-as-usual scenario. This was already evident in Redclift's (1991) paper. Holden et al. (2014) agreed that there is no consensus for the term, other than the original Brundtland definition. They also introduced that there are both primary and secondary dimensions of sustainability and added that there is no significant difference in using sustainability or sustainable development. Based on the multiple opinions and the ever-changing

nature of the term, it is no wonder that sustainable development has been often shortened to just sustainability.

For this research, the widely accepted three dimensions are used to define sustainable development. The simplest clarification of this is the Doughnut Economics Model (Figure 1), developed by Raworth (2017). It highlights sustainable development as a circular model, which needs to stay inside Earth's capacity.

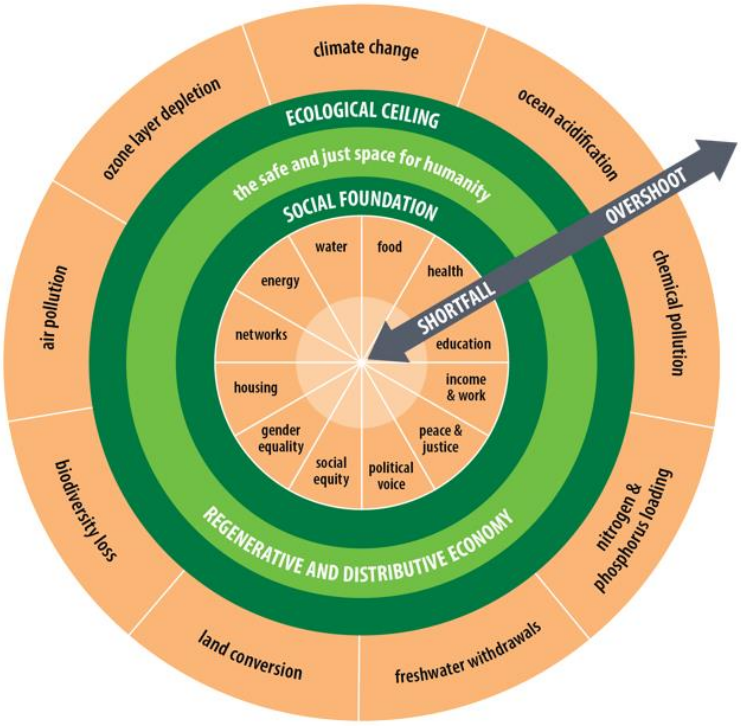

Figure 1. Doughnut model
(From kestäväkehitys.fi, n.d., original model by Raworth, 2017)

The social dimension is located in the inner circle of the doughnut. It is referred to as the *social foundation*, whereas the environmental dimension serves as the *ecological ceiling.* It means the limits of the Earth. The economic dimension is the enabling factor in which humanity moves forward whilst ensuring that the other dimensions are fulfilled as well. The doughnut model serves as a good way to highlight the relationship between the three sustainable development dimensions and how they overlap. (kestäväkehitys.fi, n.d.)

In my observation, adding multiple new dimensions to sustainability seems redundant since these three aspects serve as the basis for any later additions. The political and/or legal aspects are included in the economic dimension, whereas culture, moral and human are encompassed by the social dimension. The first two could be included in the latter as well, depending on the viewpoint. The three common dimensions also go hand in hand with the triple bottom line (TBL) construct. TBL is used when measuring the success of a business or the organization by using 'lines' that are called the economic, social, and environmental lines (sometimes referred to as "people, profit, and planet") (Alhaddi, 2015). TBL has been, in some cases, considered to be the practical framework of sustainability (Rogers & Hudson, 2011).

2.2 SDGs guiding universities' sustainability work

The United Nations Sustainable Development Goals (SDGs) are the main driving force for the sustainability work in universities. The SDGs were developed after the Millennium Development Goals (MDGs), first introduced in the year 2000. MDGs aim was similar to SDGs today, with goals including, but not limited to, mitigating poverty, providing equal access to education and improving health care. The MDGs were replaced by SDGs in 2012, in Rio de Janeiro. The term Agenda2030 is used to describe the actions each nation must take by the year 2030. The most significant difference is that the new SDGs affect all United Nations countries, not just developing countries. Figure 2 shows all 17 goals. (United Nations Development Programme, 2021.)

Figure 2. Sustainable Development Goals

(From United Nations, n.d.)

Since achieving the SDGs requires education, R&D and innovation, universities and other educational institutes are the essential contributors to this goal (European University Association, 2018). The key role of education is to ensure that future generations continue implementing the sustainability mindset and the SDGs. In a study by Leal Filho et al. (2017), the main sustainability challenge in universities was implementing sustainable development into teaching, research, and curriculum, as well as integrating it fully into the organisation. To help universities tackle this challenge, they should choose a few relevant SDGs that they will start integrating into the education system. For example, Jamk has taken five initial goals as its guiding principles. They are, for now, 5: Quality education, 8: Decent work and economic growth, 9: Industry, innovation and infrastructure, 13: Climate actions and 17: Partnerships for the goals.

As learned with the difficult definition of sustainability, it is near impossible to justify only internally whether some actions are truly sustainable. Universities might also lack the knowledge to make the necessary changes and evaluate which parts are important. This personal observation is also backed up by Leal Filho (2011): he pointed out other problems that relate to understanding sustainability work, which were e.g., abstractness, the limited personnel resources, and that it is too recent a field (as well as 'fashionable'). This is where different certifications and external systems come in: they help universities implement sustainability and the SDGs better into their operative work.

2.3 Voluntary Sustainability Standards

Understanding the difference between sustainability and environmental standards, certificates, labels, and systems can be challenging. The definitions are used interchangeably, and there have been estimates that there are over 400 (and growing) sustainability standards. Von Hagen et al. (2010) believe the main reason for this is that there has been a need to ensure a certain standard for operations, and as governments have not handled this early enough, private groups have taken the initiative. Thus, non-state-owned **Voluntary Sustainability Standards** (VSSs) have emerged. The first standards were the Rainforest Alliance certificate, followed by Fairtrade in the 1980s. Afterwards, many others joined the field, which caused significant competition between the certifying organisations. This raises the question of the necessity of multiple different standards for sustainability in the first place. The answer is simple; since there has been no governmental regulation, they have been created to suit the needs of a diverse group of private entities (von

Hagen et al., 2010). To emphasize the difficulty of interchanging terms, there are additional synonyms for VSS, found in Salo's (2016) thesis. These include Voluntary Agreements and Voluntary Environmental Agreements/Programmes/Governance Arrangements (four different terms).

Even though environmental standards are based on the (commonly acknowledged) three basic pillars of sustainability, they compete with each other (von Hagen et al., 2010). As discussed before, sustainability does not have the same definition for everyone. This reflects the variety of available standards. They focus on different aspects; some are for producers and products, while others focus on services or property. The main reason for having a certificate is to ensure internally (and market to stakeholders) that certain sustainability standards are met. As they are accredited by third party organisations, the certification is more trustworthy than just the organisation's word.

It is important to differentiate between **certification** and **accreditation:** even though both are evaluations made by a third party, there is a legislative difference between them. Inside the EU, any organisation can offer certification services, whereas accreditation is governed by EU law. Certification consists of three separate sectors, which are systems, products, and personnel certifications. The objective is to show that a predefined set of qualities are fulfilled. They are usually based on international standards, such as the ISO or EMAS (defined later). Accreditation, however, is proof of a certain qualification. For example, an organisation offering certification services can be accredited on that specific qualification. (Harjuoja, 2016.)

To help individuals and organisations make sense of the VSS 'jungle', the United Nations Forum on Sustainability Standards (UNFSS) was created. The Forum aims to help especially developing countries attain sustainable practices and to ensure their access to global markets (UNFSS, n.d.). The overall goal of VSS is to transition our global economy to a greener economy (Marx & Wouters, 2015). Elamin and Fernandez de Cordoba (2020) found out that VSS indeed help in shaping the global markets into more sustainable ones.

In the abundance of competitors, it is seen as necessary to certify one's operations and products to be able to enter the market. If failing to comply with the demands, there is the possibility of

being dropped out of the global value chains. In a way, this is a double-edged sword, since following the rules and demands of multiple VSSs might prove difficult for smaller producers and businesses in developing countries, according to authors such as von Hagen et al. (2010) and Elamin and Fernandez de Cordoba (2020). The latter also stated that there is a discrepancy between the amount of VSS, their extensive use, and the up-to-date empirical research on the trade impacts of VSS, which is scarce.

2.3.1 Environmental labels

An environmental label is a mark that is awarded to a single product (or multiple in a product line) or a service. The difference between an environmental label and a standard is that the latter is given to a whole organisation, and it requires constant surveillance and objective measuring of their environmental impacts, with regular audits by the admissive party. A label is granted when the product, at that specific time, meets the criteria of the label. The label is not permanent, and if the criteria are tightened, the label will not be renewed if the new criteria are not met. Different labels include the EU Ecolabel, Fairtrade label (also a certificate), FSC and PEFC (used in forestry), organic production, and the Nordic Swan Ecolabel (see Figure 3 for examples). (Motiva, 2021.)

Figure 3. Examples of environmental labels
(From Ekokompassi, n.d. a)

According to Golubvaite (2008), using environmental labels (eco-labels) has been the rising trend in green marketing. As businesses are pressured by consumers to take sustainability and corporate social responsibility (CSR) actions into account, having an eco-label in a product is a simple way to differentiate from competitors. However, this tactic has somewhat backfired. As consumers get more environmentally concerned and educated, companies get caught in false 'green claims' (being sustainable or good for the environment), also known as greenwashing. The trust in eco-labels and certificates has thus diminished in some consumers' eyes. But with the lack of better options to ensure the 'greenness' of a product or a service, there needs to be a certain degree of trust to make more sustainable choices.

There are a few organisations in Finland that research and inform consumers about companies' green claims. One example of this is the already mentioned NGO Eetti, which makes yearly brand ranking campaigns based on the sustainability and CSR claims of the company (see e.g. Lumme & Tikka, 2021). Misuse of labels and certificates comes up with these types of research. Another recent research by Kuluttajaliitto (2022) revealed interesting attitudes towards eco-labels. Consumers do not easily recognise the differences between private-owned labels and officially certified ones. Furthermore, the younger responders claimed they know the difference, but later questions proved that in fact, they did not. There was considerable variety in the answers, depending on age, social status and, surprisingly, political beliefs. The most trustworthy labels were the most known official ones, such as the Nordic Swan Ecolabel, Organic (*Luomu*) and EU Ecolabel.

2.3.2 Environmental Management Systems and Certificates

Voluntary sustainability standards include Environmental Management Systems (EMSs), which are a lighter version of an accredited organisational standard. In some cases, they are referred to as VEMS (voluntary EMS). Certified EMSs are governed by third party organisations, but an organisation can choose to build their own internal EMS, which is governed only by the organisation itself. However, it is possible to later get the internal system certified (Lehtonen, 2021).

ISO 14001 Standard and EMAS

Most EMSs are based on the International Standards Organisation (ISO) standards, and more specifically, on the **ISO 14001** Environment standard (International Organization for Standardization, 2015; Melnyk et al., 2003). ISO standards are the most recognized standards internationally, and their number increases every year (Tarí et al., 2012). ISO standard's importance is that it could be regarded as the 'father' of other certificates and EMSs. It was stated in a literature review by Reis et al. (2018) that there are over 300 000 ISO certified organisations around the world. They are not spread evenly, but rather the number increases in the nations where consumers demand more ambitious sustainability actions from companies.

A vast majority of research and literature concerning EMSs focuses on the ISO 14001 (about 40 or so articles and theses were skimmed through for this research). Even though ISO standards were excluded from the valid options for this thesis, it serves as a good basis to understand their benefits and significance. According to Reis et al. (2018), the ISO standards were created in the 'aftermath' of the Brundtland report. After the Rio 92 conference, the Business Council for Sustainable Development proposed the creation of a committee that would address organisational issues regarding environmental management. Thus, in 1993, the ISO (organisation) developed a committee whose work resulted later in creating the ISO 14000 standard series. The current standard was updated last in 2015. There is no clear distinction whether the ISO standards are governmental or private, since the accrediting organisation is an NGO, but employs both governmental and private entities (Wenban-Smith, 2013).

There have been numerous studies on the benefits of the ISO 14001 standard, but also some criticism. Tarí et al. (2012) found three separate groups of benefits, which were internal, external and relations related. The first included improvements within the organisation, costs, and environmental performance. The second was about brand image and market benefits, and the last was about competitiveness, customers and stakeholders, and overall environmental awareness. In addition, in the review by Reis et al. (2018), other researchers had listed the same benefit groups in more detail, separating them into subgroups. The overview on the benefits still stayed the same, and there are definite positive gains in using the ISO standard, similarly listed by Ferrón Vílchez (2017) as well. The research in academic journals focused mainly on companies and businesses, whereas theses made by students adapted the angle of universities.

The criticism in Ferrón Vílchez's (2017) paper addressed companies adopting the ISO purely for cosmetic and external reasons. There might be external pressure in wanting to get certified by an external party, but if the motivation is external rather than internal the significance stays purely symbolic. Certain companies might adopt the system whilst doing only the bare minimum, thus the process is a simple bureaucratic action. On the other hand, a study by Mosgaard and Kristensen (2020) found reasons why companies might want to discontinue using the ISO. Most of the participants in the study were smaller companies, who were lacking the resources to keep up with sustaining the system. They have usually built their own management systems, and some might be focusing on overall cleaner production. The main reason for the discontinuation was a rational cost-benefit analysis as they did not find strategic value for the system anymore.

Another major EMS is the **EMAS** (Eco-Management and Audit Scheme), which is governed and was created by the European Commission (*Suomen ympäristökeskus* SYKE, 2019). It follows the same principles and guidelines as the ISO. If an organisation has created an EMS following the ISO principles, it can very easily apply for the EMAS certification. Organisations can have both systems at the same time or apply only for the other. EMAS requires that the organisation commits to following environmental legislation and continuously aims to better its nature governance (Lehtonen, 2021). The systems differ in the way that EMAS demands public documentation on the environmental actions from the organisation, which they verify (Pesonen et al., 2004).

Fairtrade certification

Fairtrade certification ensures that the sustainable development (SD) measures the organisation has set are met in the services and products the label is given. It focuses most notably on the social and economic sustainability of the producers in developing countries. These are a very important part of an organisation's sustainability work. Fairtrade also considers environmental issues, since the producers do not use hazardous or toxic chemicals, among other things. Fairtrade offers different certificates for different needs, and Fairtrade University and College Award (*Reilun Kaupan Korkeakoulu*) is one of them. It is not an EMS but only a certification, whereas WWF's Green Office, for instance, is both. Fairtrade could be considered as an accord or compact, in the sense that the participating organisation commits to taking Fairtrade issues into account in their operative work. The certification means that the university commits to serving

Fairtrade products (e.g., coffee and tea), and they educate their students and personnel about sustainable consumption and better choices for the environment. They require reporting, self-assessment and a team to manage the work. (Reilu kauppa, n.d.)

So far, research on Fairtrade University certification and its uses is scarce. Raynolds (2014) highlighted that Fairtrade is one of the most popular and globally well-known third-party certifications, at least in the food sector. It is not perfect, but the organisation has made significant improvements in the producer sector, which is its aim. When considering sustainability and CSR, Fairtrade advocates living wages (in contrast to companies paying just the minimum wage). A living wage is one of the key aspects of CSR that companies should take care of in their value chain.

Ciscell (2010) proposed in his paper that Fairtrade could adopt the governing of voluntary carbon offsets. This shows that the Fairtrade organisation takes sustainable development and transparency very seriously. If Fairtrade would ever take on the governing role of carbon markets (which is something that for example the UN could more likely supervise), it would be a significant step towards increasing their importance. Even though the paper is not that recent, the problems in voluntary carbon markets are still prevailing today, which is an important topic for further research. Fairtrade has indeed started its own carbon credit 'business', but it is still in an early stage and not available to wider markets yet (Fairtrade, n.d.).

Thorough research on certifications by the Finnish NGO Finnwatch (Kultalahti & Vartiala, 2016) also revealed that Fairtrade certification was the best food product certification system. Their only flaw was that their operations could be more transparent. Finnwatch is a similar organisation to other -watch ending local non-profit NGOs, such as Germanwatch, and they make research on e.g., global SD and CSR related issues. Consequently, just recently they made a report on the Finnish carbon market situation and certifications. Finnwatch is planning on conducting updated research on food certifications this year, so it will be interesting to see if Fairtrade maintains its number one place.

WWF Green Office

The Green Office (GO) is an environmental management system (and certificate) that was created by WWF Finland and is governed by the WWF organisation (WWF, n.d. a). It helps organisations in building a full environment system that will guide their sustainability actions, such as reducing carbon footprint and being more efficient in resource usage. They offer a full package of tools to help with the work, starting from creating a self-assessment of the present situation. Once an organisation has made the relevant pre-measures, it can be admitted the certification. Green Office features a pre-defined joining fee, which is based on the number of employees in the organisation. After that, they require a yearly fee on the same basis. For organisations larger than 2000 employees, the fee is not pre-defined but can be anything over 8500 euros. (WWF, n.d. b)

In Rastio's (2016) similar thesis, Green Office was widely used by universities in Finland. There were at least 10 different institutions that had it in use at the time of this thesis. Currently, it seems that the numbers have diminished significantly. This observation is based on universities' websites and if they openly use the logo or disclose that they still have the system in use. In another thesis by Kuiri (2014), using GO in Vietnamese organisations had some difficulties and barriers. The cost of the system is one main issue, but also the lack of brand awareness in Asian countries. In the thesis, it was stated that WWF is very well known across Europe, but not so much in Asia. Presently, this information might be outdated.

Most of the research regarding Green Office was quite similar in the contents, and as it has properly spread outside Finland relatively recently (approximately 10 years), most research focused on the building procedure. Benefits and criticism were very similar to those about the ISO 14001 standard, which is only natural as Green Office is based on it. The actual usage of the system in universities, and why its use has diminished over the years, is something that primary data will reveal on a deeper level.

EcoCompass

EcoCompass (Ekokompassi) is an environmental management system that is owned and managed by the Finnish Association for Nature Conservation (*Suomen Luonnonsuojeluliitto*, SLL). It is based on the ISO 14001-standard, and it is a suitable environmental certificate for organisations of any size. It is similar to other Nordic environmental systems that are in use in Norway, Sweden, and

Denmark. EcoCompass' expertise consists of waste management, energy efficiency, acquisitions, chemicals, and other things causing environmental impacts. (Ekokompassi, n.d. b)

EcoCompass is widely used in companies, organisations and events. There are multiple theses on the system's uses and development. For example, Palovaara (2019) studied how EcoCompass certification is used in the event Jukolan Viesti, Jabbi (2019) researched how the festival Qstock could attain the certificate in the future, and Tolppa (2017) studied if smaller companies would be interested in the system and how it could be improved. One notable organisation to use EcoCompass is Varusteleka, which could be considered a pioneer in CSR and sustainability in Finland (Varusteleka, 2019). They have branded themselves as an absolute transparent company and use the slogan '*Varusteleka – Hyvien puolella'* (on the good side).

However, EcoCompass is not in use in universities as is, but some parts of educational organisations' services have it. For example, the University of Helsinki's student union is certified, and Tampere University Community (TUNI) has certified their property services (Ekokompassi, n.d. c). This raises the question: why is the system not used in universities themselves? It could be that it is not yet flexible enough to suit the needs of a complicated, multi-property organisation that employs thousands of workers in varying roles and has many different operations and functions. It is worth researching if using EcoCompass in universities could be piloted in Jamk or another university. If that is not yet possible, then further studies should be done to determine what needs to be developed to suit the needs of universities.

Global compact

The United Nations Global Compact (GC) is the largest corporate sustainability (or CSR) initiative, having over 15 000 organisations joined. It is not an EMS or a certificate, but rather "*a call to companies to align strategies and operations with universal principles of human rights, labour, environment and anti-corruption*". It has ten principles in line with the UN's and ILO's declarations. The initiative also focuses on all the 17 SDGs, whereas for example Green Office mainly focuses on climate actions. Nowadays, GC has the same principle as having a third-party auditor. (UN Global Compact, n.d.)

Rasche (2009) stated that GC serves as the best framework to address CSR issues. As United Nations is a global, intergovernmental organisation with many nations accepting its mandate, GC is something that nations can do now, instead of waiting for obligatory international legislation. In the same paper, some criticism was highlighted, but many of them turned out to be based on misconceptions. For example, GO was thought to serve as a governing certification that businesses would use to 'bluewash' (associate with the UN) their actions, whereas it serves as a learning platform. GO also expects proactive and honest actions from the participants, as it aims to bring businesses and non-business stakeholders together, to learn from each other. A more recent study by Orzes et al. (2020) shows that companies that are part of GC have better sales performance and higher profits than similar control companies, but the initiative does not influence labour productivity. There is no research done on universities and GC's benefit to them. Therefore, this will need primary data as well.

Other sustainability actions

A university can be part of many other sustainability actions, accords, and networks. For example, the SDG Accord is similar to GC, but it is aimed at universities and colleges that can commit to implement the SDGs. It has a twofold purpose, which is 1) "*to inspire, celebrate and advance the critical role that education has in delivering the SDGs and the value it brings to governments, business and wider society"* and 2) to encourage universities to report, share their learning and overall do more to ensure the SDGs are met (SDG Accord, 2022). It also hosts a learning network to support the sharing of practices.

Race to Zero is governed by the United Nations, and organisations can take part in the promise to reach net-zero emissions by the year 2050 (UN Race to Zero, 2022). An official partner of Race to Zero is its Universities & Colleges partner initiative. Their homepage features a large list of global sustainability resources that universities can take part in (around 15 links at this time) (Education Race to Zero, 2022). Other actions and networks still exist, but as some of them are relatively recent (considering the latest climate summit), the literature is non-existent or irrelevant for this thesis. For the analysis, primary data on these and the actual benefits are more important than existing literature.

2.4 Using EMS in higher education

There are not many recent studies relating to environmental management system (EMS) usage in universities. The literature found was from the earlier 2000s or practical theses made by students for companies. Seemingly, there was no comprehensive research done on the different sustainability systems and certificates that universities might choose to adopt. As sustainability and environmental actions are increasingly important in universities, the emergence of multiple different options in recent years needs more research.

As with companies, for universities the main point of using an EMS is to make sure that corporate environmental management is undertaken sufficiently. There has been research about the motivations for acquiring an EMS (e.g., González-Benitos, 2005; Jay, 2019). If the motivation is purely external the system can be useless and inefficient. On the other hand, if the motivation arises from the internal need of doing things more sustainably, the system provides a good framework for this. Adopting an EMS might serve as a kick-start if the organisation is in a state of stagnation with the sustainability work. This was the case in research by Spira and Baker-Shelley (2014). They found out that Maastricht University, with the help of lobbying students, could finally push forward their energy efficiency by adopting the Green Office EMS. Common motivations for universities (or any organisation) in adopting an EMS are, for example, better governance of responsibilities, improved environmental performance, systematic documentation, cost reductions, staff motivation and overall better communication on environmental issues (Simkins & Nolan, 2004).

According to Simkins and Nolan (2004), there might be pressing external reasons for adopting an EMS as well, which are not just ‘cosmetic’. For example, in Finland Arene and Unifi encourage universities to implement certain sustainability actions into their operations. In this case, adopting an EMS might serve as an easy and concrete way to ensure that a certain level is met. Additionally, in the same paper, they stated that the motivation for universities in adopting EMS might be to attract students. In Clarke and Kouri’s (2009) paper, they countered that universities are not driven by market factors like companies are, but rather their motivation arises mostly from honest internal responsibility for the environment, health, and safety.

Another aspect Clarke and Kouri (2009) found was that one of the global issues in using EMS at the university level is that a system that would have been tailored specifically to universities does not exist. Multiple institutions have adopted the ISO 14001 standard, EMAS, or other certifications, that have been originally made for companies and offices. Many universities face some struggles with certified EMS and are thus compelled to build their own internal EMS. As externally certified EMSs fundamentally concentrate on two things, data collection and analysis, the process can be either very time-consuming or extremely simple (Bero et al., 2012). The yearly process can be easily automated if the organisation has created sufficient software for storing the relevant data. However, there needs to be a clear program to guide the user, otherwise sophisticated software (or a thorough internal EMS) is rendered useless.

Bhandari and Raj (2019) listed six groups of benefits when universities adopt EMS practices. These were in line with the previous findings of using certified systems, such as understanding the environmental impact of certain actions and serving as a framework for sustainability work. In addition, the role of universities as educators on environmental issues was crucial in training the future labour class. Von Oelreich (2004) found that the difficult definition of sustainability leaves too much room for individual interpretations, but universities that implement EMS practices (certified or internal) simultaneously advance their sustainability work. These two are interchangeable, but having an EMS helps the sustainability work more concretely.

Core issues in universities relating to environmental management were the commitment and motivation of staff, especially if there are individuals who have tried to forward sustainable practices, which have gone unnoticed and not been done for long periods. The commitment of the managerial level was crucial in various research, as well as the need to employ an environmental coordinator (or sustainability expert). (see e.g., Sirviö, 2010; Viebahn, 2002.)

There is criticism towards EMSs, although some of the literature is outdated. According to Heiskanen (2004), EMS might be well suited for one organisation, but the systems are too costly and bureaucratic for others. In the worst case, it might serve as a smokescreen, where the organisation can wave their evident ‘greenness’ but their overall business continues causing damage to the environment and the other SD pillars. Universities most likely would not go as deep into greenwashing, but they too could only do the bare minimum and shape up as the audits are

approaching. Systems such as Green Office or ISO might prove to be way too expensive for the work they require (and impossible to maintain for smaller budgets). Furthermore, the systems are not very flexible, even though they are supposed to suit many types and different sized organisations.

Finally, Malinen (2013) listed many issues regarding EMS use in universities. The decision-making structure in universities is, usually, conservative and slow. If there is a proposal for sustainability action, which requires a lot of minor actions, stakeholder engagement with supply chain evaluations and life cycle analyses, the management might not be enthusiastic about implementing these kinds of practices. Thus, here again, the commitment of the managerial level is crucial. University funding is also an issue. There are limits and regulations in the ways a university can spend its money if funding comes from public sources. For private universities, costs of thousands of euros removes the money from profits or other important operations. However, for universities aiming to brand themselves as ecological, sustainable, and innovative, a well-known EMS might attract top students, researchers, and investors.

3 Methodology

3.1 Research approach

In this chapter, the research method journey and choices are disclosed. Silverman (2022) proposes that instead of writing the methodology chapter traditionally, which just lists the theories surrounding the choices, it could be written as a ‘natural history’ or a research diary. This type of style is more informal, but also more personal. I have adapted this approach in the following chapter and combined a diary-like style with the theories used.

There are multiple different perspectives on how to conduct research and what to include in the methodology. Saunders et al. (2009) have introduced the research onion, which has six different layers that the researcher needs to ‘peel’ to get to the heart of the research. Silverman (2022) has a linear path that a researcher can follow, and the thorough guide in the University of Jyväskylä’s Koppa (2015) describes a method map. I combined my methodology from all of these and used Silverman’s linear depicting method (Figure 4).

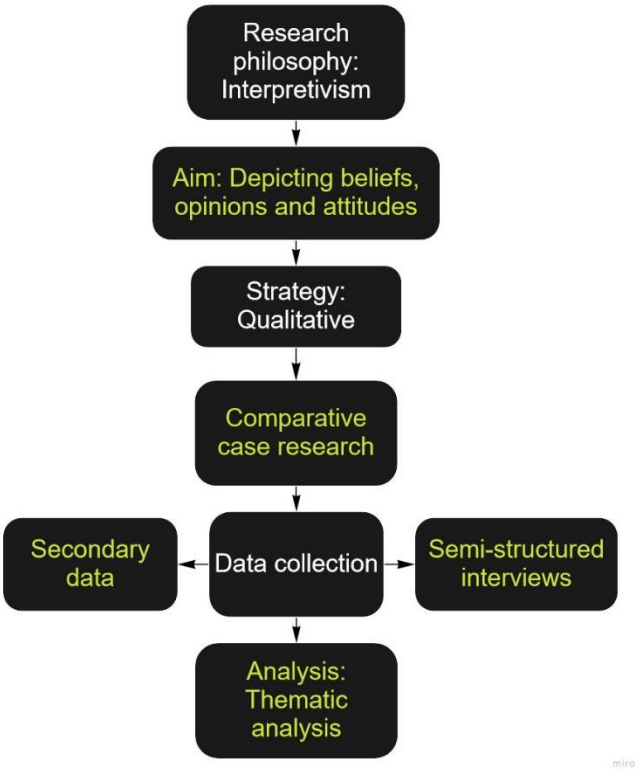

Figure 4. Method map
(Author's own interpretation)

Saunders et al. (2009) emphasise that it is very important to understand your research philosophy before going into other details. My research philosophy is interpretivism, which means the importance of understanding humans as social actors. Interpretivism is very common in qualitative research and is often seen as the opposite of positivism, and the pair of constructivism (Koppa, 2015). The next part in my method image, also from Koppa (2010), is the research aim (or defining the problem) which is the *depicting and understanding of beliefs, opinions, and attitudes*. Koppa also has *depicting experiences* as an aim, which could be suitable as well. Both are part of empirical study, and they can be conducted either as qualitative or quantitative research.

The overall research strategy is qualitative research. Kananen (2013) explains that qualitative research is used when there is a need to get an in-depth understanding of a phenomenon. Silverman (2022) defines qualitative research as a suitable option when the researcher is trying to understand experiences and opinions with questions such as what and how. These questions also justify using a case study, which is the more specific strategy (Yin, 2018). Kananen (2013) states

that case research can utilise multiple methods of data collection: interviews, observations, and documents. Huutoniemi (2014) has used the term comparative case research, and it suits my thesis well: I have many cases and I am comparing them and the interviewees' opinions. This thesis is not the most traditional case research, but the idea is to understand views and people's opinions about multiple cases (Koppa, 2015). The method map introduces data collection and data analysis after this, but they will be explained further in their respective chapters.

As questions are asked only once, the research is cross-sectional. However, the types of questions, such as the history of using certification in the school and the possible changes and processes, make it implement parts of the longitudinal approach as well (Saunders et al., 2009). That is also evident in the data collection since I tried to gather secondary data on the previous and current situations in other universities. These were not included in the main method map, as they are not as relevant in the bigger picture.

3.2 Research context

The context of this thesis is sustainability-related certificates in the higher education field. I familiarised myself with the context by reading secondary data and academic literature. Getting to know the different certificates, standards and environmental systems was difficult at first. The concepts were used randomly, and there was a need to differentiate actions, systems, networks, and certificates from each other. After the initial difficulties, I chose three Finnish universities and one foreign university as my main research cases. The results from the preliminary research showed that the Fairtrade University and Global Compact were the most valid options. I noticed from the literature review that the EcoCompass certificate seemed like a good option, even though it is not used fully in universities. Green Office was used as one reason to choose the preliminary university cases but was no longer an option in the second part.

Rastio (2016) had done similar research for Humak UAS and concluded that Green Office would be best suited for educational organisations. This was one of the reasons I chose the University of Jyväskylä (JYU) as my example university. Their sustainable development actions and website were very well conducted, and they had two different certificates: the WWF Green Office and Fairtrade University. I thought that it is also good to interview someone from the same city as there might be local differences in using certain certificates. The second case university was LUT University.

They had several sustainability measures in place, including the Green Office certificate. Additionally, they had created their own Green Campus system, from which I wanted to get primary data because the secondary data was unclear and seemed outdated.

As I did the thesis in two parts, I already knew quite a lot of the certificates and the needs when starting the actual thesis process. Because the commissioner was also interested in getting primary data from foreign universities, I focused on those in the second part of the process. As the suitable options from the preliminary research were also international, I chose foreign universities based on those. We established that a European university would be the most comparable case university. I contacted three suitable foreign universities, from Germany and the UK. In the end, I only got an interview with the Glasgow Caledonian University (GCU), which had experience in both the Fairtrade and Global Compact. However, after I had decided on my case universities, I had to gather additional information from the TUNI Community and Gradia vocational school's restaurant services about their EcoCompass experiences.

3.3 Data collection

Continuing the method map in Figure 4, my data collection method was a mix of secondary and primary data. After I had familiarised myself enough with the topic of certificates, I started collecting the actual data from the Finnish universities. I looked through their websites and listed my findings systematically. I reviewed the websites of every Finnish university of applied sciences, focusing on their sustainability sites. If there was no mention of certificates or other environmental systems, I documented that they do not have any. Since the timeframe for the preliminary research was very limited, I did not go through their strategies and previous marketing posts/news to look for the certificates. As such, the information I was looking for had to be easily visible to outsiders. For the universities, I listed only those that a Google search showed with specific keywords. In Appendix 1, there is a snapshot of the Excel table that I used to gather information on the schools and certifications. As I already knew what to look for in the second part of the thesis, I did not have to gather secondary data for the international universities and could select the cases quite fast.

I began gathering primary data after I had collected the secondary data. Kananen (2013) underlined the importance of selecting the interviewees based on their association with the

phenomenon that is researched. Therefore, I chose my interviewees based on their expertise in the university's sustainability work, and/or the certificate in question. The title of each interviewee was a sustainability expert or someone directly responsible for the certificates. I approached them via e-mail with my research topic, clarified the aim, and asked if they would be willing to answer. In some cases, the sustainability expert forwarded my enquiries to the proper person in charge. I reasoned that at least two different opinions on the topic are needed unless there are heavily differing opinions. International opinions for the global certificates were needed, as I had gotten only one opinion on Fairtrade and Global Compact respectively from the Finnish interviewees.

In the end, I had five different interviews with universities, and three interviews from the certification organisations. Kananen (2013) defined the normal quantity of qualitative participants to be about 12. However, in Silverman's (2022) book he cited Kiukow's (2017) opinion that there are no 'rules' on the number of interviews in qualitative studies. Kiukow argued that just reaching data saturation (when no new information is found) is not suitable for every researcher, and the amount varies depending on the type of study.

I used a qualitative perspective to cost-benefit analysis to formulate the questions and frame the interviews. The traditional cost-benefit analysis did not suit the approach, as numerical values were not calculated. Rather, the objective was to measure the more abstract benefits (e.g., Rogers et al., 2009). I reasoned that this type of approach puts the participants in the correct mindset, as they know that I am looking for the downsides too: for example, if a certificate is too expensive or not useful for them. Kananen (2013) claims that having ready questions before interviews is not qualitative research, because then in his mind the researcher must have existing knowledge of the topic. Silverman (2022) does not share this type of ideology. Therefore, I reasoned that semi-structured questions, sent to the interviewees beforehand, will get me the best answers. I wanted to allow my interviewees to prepare in advance for the interview questions, gather facts and refresh their memory, or connect me with another person, if needed.

With all of this in mind, I formulated seven questions that focused on the costs and benefits of the certificates, with the research questions as a guiding principle. I did not do any pilot interviews as this was not my first-time doing interviews for academic assignments. However, I did get the questions reviewed by the thesis supervisor. I sent the questions to every participant beforehand

but modified them to suit the university in question. The JYU interviewee recommended that I ask the university's dean for an interview as well, thus my reasoning was correct. The basis for the interview questions can be seen in Appendix 2.

I conducted the first interviews with JYU and LUT in November-December 2021. The language used was Finnish, as all the participants were Finns. I used the formulated questions as a guide to the interviews but skipped questions if they had already been answered. Some additional thoughts and questions came up during the interviews, but afterwards, I realised that they did not help answer the research questions. They still gave valuable information for the other actions that Jamk should consider in their sustainability work, but these will not be included in the thesis results. The rest of the interviews were conducted in March 2022, each one lasting about an hour. I got a reply from the University of Edinburgh towards the end of the month, but at that point had gotten enough data on the Fairtrade certification.

As mentioned before, additional information apart from the universities was needed from the representatives of the certification organisations. I interviewed the EcoCompass representative by myself, but the Fairtrade interview included other participants from Jamk and the student union JAMKO as well, who wanted to ask questions. A Jamk employee needed to be interviewed to clarify some confusions that had arisen about Global Compact from another interview. E-mails to the Eco-School scheme and OKKA certification were also necessary. Finally, I added TUNI Community and Gradia vocational school into my interviewee list, as I wanted user experiences from EcoCompass. SYKLI Environmental School of Finland is the only educational institute that has certified their whole organisation but unfortunately, they were unable to participate in an interview. Gradia has certified their restaurant services with the expertise of a current Jamk employee, who had also studied in SYKLI environmental school. TUNI has certified their property services.

I followed the research ethics principles that Saunders et al. (2009) introduced. I asked for permission to record the interviews and used the MS Teams recording option. I ensured that the recording is used only for the transcribing process. Kananen (2013) proposed that a digital tape recorder is the best option, but since I did the interviews only in digital form, I used the in-app recording functions. I had some technical issues with the hosting and recording in the first

interview and should have tried it with someone beforehand. With this knowledge, I was smarter in the remaining interviews. I anonymised the interviewees' names, as I felt that it was unnecessary to use their names in the text.

3.4 Data analysis

When I was done with the interviews, the next step was transcribing. In the preliminary research, I did the transcribing by hand, as the software did not work for the Finnish language. Saunders et al. (2009) proposed that dictating recordings is also a possible way to save time, but that would have required making the work twice. I listened to the interview recordings and typed the key findings down at the same time. According to Kananen (2013), there are three levels of transcribing, varying from the most accurate to the key points only. For this research, 'transcribing at the proposition level' was enough. As I only needed the hard data and opinions on the topic, the expressions, exact words, and tones did not matter. However, I learned later that the website version of MS Word has a good transcribing option. I used that for the rest of the thesis interviews, although I noticed in the coding phase that my initial style of transcribing would have made this step a lot faster: the literal transcriptions contained unnecessary information and filler words.

Since I used cost-benefit analysis as the basis for formulating the initial interview questions, I had some format of the codes for the upcoming analysis stage. However, the codes needed to be refined after the data, as new options and data emerged from the interviews. These new findings were then grouped, where possible, or they got their own codes. This sets my data analysis method to implement parts of thematic analysis. It is simply identifying the themes emerging from the data, which in this case were the different certifications and other sustainability findings (Koppa, 2010). Thematic analysis is one form of content analysis (Kallinen & Kinnunen, n.d.). Data analysis concludes my method map (Figure 4).

For the first part of my thesis, I coded the findings using NVivo 11 Pro software, which I was the most familiar with from the data analysis course. As Silverman (2022) explains, the point of the software is to make the data handling process easier and faster, enabling the researcher to focus on the analysis. I had come up with some of the codes before the interviews which were based on

the research questions and the analysis approach. The rest of the codes came up from the primary data, as seen in Figure 5.

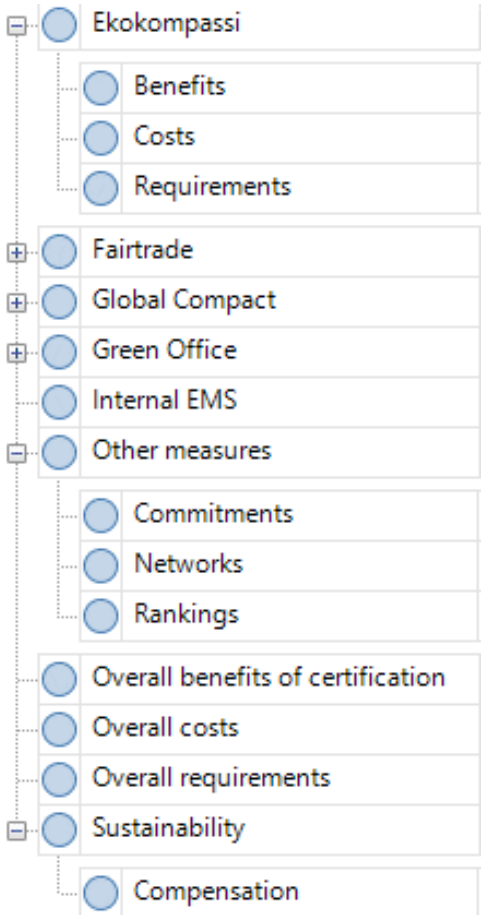

Figure 5. NVivo codes

In the figure, each certificate has the same sub-codes as the first (benefits, costs, requirements). The others have not been expanded to save space. In between the preliminary research coding and the thesis, Jamk had updated the NVivo program from 11 to 12. There were no apparent updates, but the new version was extremely slow. Each coding command took several seconds to register, so the coding was immensely slower than before. For this reason, longer source nodes were used to minimise the amount of waiting time. The node names were more specific than in the preliminary research, but with the problems in the program, this was not a good decision.

3.5 Verification of the results

The traditional verification methods do not always work in qualitative research. Kananen (2013) highlights a different approach to research verification than those that are used in quantitative research. He argues that the qualitative perspective consists of documentation, consistency (of interpretation), credibility and saturation. This view has been adopted in the ’80s, but authors such as Morse et al. (2002) counter that qualitative researchers should still take back the ‘rigour’ in analysing the credibility of findings. In this section, I analyse my methods and findings with the traditional framework but with a qualitative perspective.

Validity

Validity is usually divided into internal and external parts. As my main research question was quite straightforward, the results of the research answered the question. For additional internal verification, I did data validations with the commissioner. In these sessions, we agreed that the Green Office is not a suitable option for Jamk and that I could leave out other sustainability measures from the results. As there can be as many interpretations as there are interpreters, it is wise to let someone else see the results. There is always the possibility that the commissioner does not agree with the results of the research (Kananen, 2013), or comes to a different conclusion.

External validity is harder to measure in qualitative research. Creswell (2014) cautioned using generalisability in qualitative research, as the research setting is not supposed to be extended to other studies. However, it is possible to replicate similar studies with good documentation, especially in case research, and Saunders et al. (2009) stress the importance of thorough reporting. This type of comparative case study could be replicated with multiple other topics and estimating the cost-benefit relationship could be attained with similar questions and participants about a certain topic. Kananen (2013) agrees with the argument and adds that the “transferability falls on the next transferor”, which means that it is up to the next researcher to determine the level of similarity.

The findings can be generalised in the same context, which is sustainability-related certificates at the higher education level. There have been some theses done with a similar aim, but since the

information expires after some time, it is good that these types of research are updated. Even though educational institutes are different from regular companies, the findings can still be used in the business world, to some extent. If a company was considering one of the certificates mentioned in this thesis, they could estimate whether it is good for their business or not. Finnish companies could benefit from the analysis the most, but as some of the options are international, they might serve global audiences just as well. However, as the primary data is based on the opinions of the interviewees, there are differing opinions on the use of a certain certificate, such as the fact that some universities are more 'sustainably advanced' than others.

Reliability/credibility

Documentation is an important part of verifying qualitative research. By replicating similar procedures, another researcher could reproduce the study. However, they might not arrive at the same conclusions, as is the nature of case research based on opinions and data that changes. Case research usually implements parts of multiple methods and uses data triangulation (Kananen, 2013). To support the interview findings, I reviewed literature, secondary data and numerical data, such as the monetary cost of a certificate. If some things were left unclear from the interview answers, I asked the organisations themselves. Saturation was one of the key measures of credibility in qualitative research. As there were limitations with schedules, it was impossible to gain a 'true' saturation. However, the primary and secondary data gathered were enough to come to conclusions to answer the research question. Additional interviews might not have provided any useful extra information. Finally, bachelor's level research is narrower in scope than graduate and postgraduate level research.

As I had no prior in-depth knowledge of sustainability certificates, my starting point in the research was a clean slate. At first, it affected my ability to determine the scope of the research: which certificates were suitable and worth looking into. The difficulty with definitions and non-standardised terms was an issue as well, thus not knowing that Global Compact is usually used as a certification, for instance. On the other hand, I could focus fully on listening, understanding, and gaining information from the interviewees, without any prior opinions affecting it. These were evident only in the first part of the thesis process: for the second part, I had started with the literature review, so I had gained information on the general level and of the different certificates.

In the actual thesis process, my findings were more consistent, and I had more sufficient background knowledge of the topic.

Objectivity

Silverman (2022) highlights some issues of objectivity in the coding, which include 'cherry-picking' with the data coded. I was aware of this risk but had no reason to leave out certain information, even though I transcribed only at the basic level. The interview questions had been pre-defined based on scientific methods and ethical principles. I evaluated the interviewees' responses from the perspective of my study and context, so the irrelevant data was left out. I had some bias towards the Fairtrade certification after the preliminary research. It had come up as a trustworthy certification system in other contexts as well. Initially, I thought the Green Office would be the best certificate for Jamk, partly based on Rastio's (2016) findings. The data revealed that this was not the case, so I did not hold on to my presumption. My task is to propose only the most suitable options and give an educated suggestion that is based on good reasoning.

4 Results

In this chapter, the data analysis results are reviewed, starting with the preliminary research results in its subchapter. The results are combined based on the certificates, and no individual interviewees are identified or discussed, unless necessary for clarity or important details. The certification-specific results are thus a combination of primary and secondary data.

As mentioned in the introduction, some certificates were excluded from the options. Initially, Vihreä lippu and OKKA were excluded due to them being used only up to upper secondary education. However, as EcoCampus certification came up in the GCU interview, additional information about it was required. EcoCampus resembles the Green Office, and it also follows the ISO 14001 standard. EcoCampus is not available for Finnish universities, even though Jamk fulfils the criteria. If there is a national EcoCampus operator in the country of the university, the certification needs to be acquired through them. In Finland, Vihreä lippu (*Green Flag*) (n.d.) operates the certification. A direct response from them revealed that as EcoCampus is relatively new (created in 2019), there have been no resources to transform the current Finnish Vihreä lippu certification to suit higher education. It has been created to suit the understanding level of

children, even though some upper secondary schools use it. In the future, the certification might be updated to suit Finnish universities as well, but the responder did not know when this would be topical. As it is not yet available here, no further analysis was made.

OKKA certification works together with the Vihreä lippu, and it is used only up to the upper secondary level. However, the commissioner of the thesis had heard that OKKA have been interested in piloting the certification at the higher education level. As this might have been crucial information regarding the outcome of the thesis options, a freeform interview was arranged with their representative. They have indeed been interested in piloting, but the difficulty lies in the differences between universities compared to lower education. To pilot the certification, a network project is needed to update the requirements and indicators the certification uses. This requires cooperation between multiple universities to ensure valid results. Another possibility is that Arene and Unifi take some initiative in setting the stage. However, there was no simple answer as to why OKKA is not yet available for higher levels, and the next steps to advance this possibility are quite complicated. In conclusion, this topic needs further research and is a project on its own.

4.1 Preliminary research project results

The findings of the track project research revealed that the two most suitable options for Jamk would be the Fairtrade University certification and the Global Compact initiative. However, more research was needed to make this outcome more valid. The project also determined that some options could be left out entirely from further research. The ones that were excluded from the final options in this thesis regarded LUT University's Green Campus system and using internal EMS, WWF's Green Office certification and other sustainability actions. The details of this outcome will be reviewed in this subchapter.

Green Campus and internal EMS

Green Campus was one of the possible certifications to research in the initial data collection phase. There was no sufficient information available on the system, so it was included in the interview with the LUT interviewee. Green Campus was the product of LUT University's professors and teaching staff's thoughts on environmental actions. In 2013 they won the International

Network's Excellent Campus award with the system, indicating their sustainability work was already rather advanced at the time. It was not an EMS per se, but rather a way of thinking. The system does not exist anymore as is, but it served as a basis for LUT's current internal EMS.

Green Campus as a title spurred LUT into thinking "*are we really as sustainable as we are called*"? These thoughts made them want to acquire the ISO 14001 -standard, which they did. LUT got the standard on the first try without anything to comment on, which is very rare. In the yearly audits afterwards, they did not get any proper development ideas or anomalies, and the audits started getting repetitive. The standard turned out to be redundant in their sustainability and they decided to abandon it. LUT used the basic idea (and that of Green Campus) to build their own EMS, which is called the Sustainable Development Management System. Their stakeholders might not require a third-party certified system, but LUT does have critical students who demand ambitious work towards sustainability.

The main outcome of this interview was that sometimes an internal EMS serves the university best. LUT's system consists of different representatives inside the organisation (students, service and quality professionals, the sustainability professional) and the upper management. The interviewee predicted that I wanted to know how the criticality and transparency of such a system can be ensured. Their opinion was that critical students are the key: "*the youth* [students] *nowadays are extremely environmentally conscious – they were the ones to demand an environmental system in the first place already ten years ago*". This means that the university first and foremost acts based on the students' interests. There might be no need for the externally audited system if the internal system takes every aspect into account and is more ambitious. The main benefit is that committing the managerial level and multiple internal parties ensures that sustainability is considered in every aspect of decision making.

Green Office

Green Office was used in both Finnish case universities, but for slightly different reasons. Neither university uses it as their main EMS, but rather their other systems provide the data GO reports need. JYU has considered the benefits GO brings critically, whilst LUT continues using it to show support for WWF. Overall, the main benefits GO provides were in line with the benefits of having

any certification. In addition, it is a globally known and respected system, which can be a major benefit to some. As it is governed by WWF, it immediately gives the idea of an environmental system. It is a lot lighter than for example the ISO 14001 standard, easier to acquire and use, and considerably cheaper. They propose concrete measures to improve the sustainability work in the institute (paper consumption, energy, water, recycling…) and their carbon calculator is quite specific. The first demand is that the organisation creates an EMS for themselves, with goals and steps to take, and has an operative team to supervise the work. There is a lot of marketing material and other supportive services to use, but the benefits of those depend heavily on how much the university uses them.

However, GO has considerable downsides. The system is extremely outdated to suit the needs of universities. As they usually have multiple campuses, many employees, and different operations, the data gathering and measuring causes extensive work. Both case universities used their own internal EMS to calculate their carbon footprint, and just use the existing data for the Green Office measurement. This way, the reporting does not take much time from the employee responsible for it. Many universities have given up GO in the last decade, as it suits traditional organisations better. Furthermore, as it focuses on carbon neutrality and the SDGs, it does not offer much more than what Arene and Unifi already demand.

Universities tend to be more advanced than other companies, as their role is to provide top-quality education and research. This in turn requires that the certifications should be updated regularly and with the same ambition. There have been discussions that GO would start piloting a modified system that is more suitable for universities, but it is uncertain when this type of system would be released. GO's yearly cost varies generally from a few thousand euros to over 20 000 euros per year. For example, for Jamk it would cost about 5000 euros to join and then 7500 euros yearly. Considering it might not offer much sustainability-worth for the university, the costs outweigh the benefits.

Other sustainability actions

There are other sustainability actions that universities can take part in, such as competitions (or rankings), commitments and different networks. UI Green Metric (2021) ranks universities'

sustainability actions, based on reporting. The application can be freely done online. It requires some initial data gathering and reporting, but the results give a good indication of the current situation and which parts need development. For example, HAMK UAS and the University of Eastern Finland have taken part in it. Academic universities have their ranking system called Times Higher Education (THE) Impact Factor, but it is not available to UASs. As for the commitments, the SDG Accord (2022) was introduced in the literature review. One interviewee said that it gives good sustainability views with yearly reports. Another example is UN Race to Zero (2022), which focuses on SDG #13: Climate Actions. Both interviewed universities are part of this commitment.

Finally, there are many sustainability networks to be part of. However, not all of them provide any concrete value for the university. International Sustainable Campus Network (ISCN) and Nordic Sustainable Campus Network (NSCN) are such networks, but their usefulness relies heavily on the university's activeness in participating in events and networking by themselves, according to one interviewee. A university can be part of all these actions, and it might even provide tremendous amounts of relevant information on how to improve the sustainability work, in all its dimensions. Nevertheless, the risk is that joining many at once might just create a chaos of information and reporting, whilst the main benefits are lost. The university should first fully implement one certification's practices and realise the areas that need improvement. After that, it is worth considering whether these other actions might provide additional benefits.

4.2 Fairtrade University

The most important aspect of the Fairtrade (FT) certification is that the certified products ensure that the producers in developing countries get paid a guaranteed price, regardless of global markets and demand (of course the guaranteed price might increase). In addition, they also get paid a Fairtrade bonus, which is used to develop the producer community. These could be, for example, building better housing for teachers, so the producers can have quality education for their children, or building a new well or a health care centre. The system serves as a safety net, and it enables sustainable production and enhances democracy. Fairtrade is a unique system as the producers make up 50 % of the decision making, whilst the consumer markets are the other half. This enables the producers to have a definite say in the Fairtrade criteria, which get updated regularly. FLOCERT is providing the certification for Fairtrade. They have also done brand conspicuousness research, and the organisation has received good results (freely translated from

the representative): *"*Fairtrade is very well known globally and in Finland. About 80 % of Finns know the label, and it is trusted."

Fairtrade considers every dimension of sustainability, in its way, and most of the SDGs. They have picked eight SDGs that they specifically advocate. For the participating university, the social dimension is most evident, but the others are indirectly included (for instance ecological: products not using toxic chemicals and economical: living wages). Otherwise, the certification is not serving as an EMS, so it does not guide the university's sustainability work on a wider scale. If this is something that the university is looking for, then having only Fairtrade is not enough. The core is serving Fairtrade coffee and tea and participating in social campaigns to educate students and staff. However, GCU's interviewee phrased the linkage between Fairtrade and the university nicely:

> *"…in terms of value, I think [Fairtrade] aligns with the university mission, which is for the common good. So, you can't have that mission, and then sell stuff that's not good for the people or the planet."*

There are over 200 Fairtrade universities globally, but so far, only eight in Finland. Most of them are based in Europe, mostly in the UK and Germany, but there are some in Latin America, Asia, and Australia. The interview results are not perfectly comparable, as the criteria and contents of the certification vary depending on the country. In the UK, the certification nowadays has a 'ranking' system: the participating university can have levels of stars that they can get, and they should also have a course module dedicated to Fairtrade. In Finland, these do not exist, and the organisation either is or is not certified.

Requirements

Fairtrade certification has four main criteria, which are products, campaigns, a committee, and reporting. The main criterion is that the whole university serves Fairtrade products in the cafeterias and meetings (but there can be other options as well). This means that most of the sub-organisations need to serve them as well, such as degree associations and cafeterias. They also need to participate in the campaigns. Fairtrade offers ready to use marketing material that the university can use as is, but it is possible to create entirely new ideas as well. The existing

campaigns include Fairtrade week, Fair coffee break and banana flash mobs (dressing up in banana costumes and handing out Fairtrade bananas).

The report is filled once a year, usually by the end of August. The format is relatively casual compared to many other systems. The report is not extensive, and the responders can freely discuss how they have participated in the Fairtrade campaigns, for example. Participants can also identify areas for improvement and introduce development measures. As the certification is always for the whole organisation, there is only one report to be done, but it is shared with the university and the student union (and where applicable, the degree unions). This means that usually there is a whole team to coordinate the certification, and the team has representatives both from the student union and the university. The coordination can be implemented into an already existing sustainability team. JYU had their university and student union working together to nominate one student who coordinates the Fairtrade actions. This gives the student valuable experience, and it reduces the work of the sustainability team. However, in some cases, there is no suitable student to do it and the process halts. These types of situations need to be explained in the reporting.

Costs

The Fairtrade certification has no fees. The main cost comes from the possible need to change some products gradually to Fairtrade options if they are not already in use. In some cases, they are a bit more expensive than non-Fairtrade products, but in the case of coffee and tea, the price is almost the same. According to one interviewee, they use mostly local products, so in their case, they would not be using Fairtrade products at all, hence they have not applied for the certification. In other interviews, the universities already used the products, so the cost was zero. Fairtrade clarified that they do not require the changing of one sustainable, but an un-certified product to be Fairtrade, just to fulfil this requirement. They also said that Fairtrade products do not usually compete with local markets, as coffee and tea (or tropical fruits and nuts) are not produced in Finland.

The product categories can be extended outside food items as well, such as t-shirts and other textiles with the university logo. Some universities have even started changing their sports

equipment to Fairtrade certified. This is not required from the start, but Fairtrade provides options for those universities that are interested in extending. There is the possibility to do only the bare minimum that is required or take it to another level.

If every product is already Fairtrade, then the biggest cost is in the human resources. The reporting and participating in the campaigns take time, which is always away from other work (unless there is a student coordinator). Fairtrade also recommend that the university sends a representative to the local and national meetings, which are held a few times a year. There are international gatherings as well, where the participants can network and share ideas.

Benefits

The Fairtrade certification is a very simple, easy to use and concrete way to educate students and staff about the social dimension of sustainability, and why they should use Fairtrade products, when able. The university can get help from the FT organisation or decide to do everything themselves. FT lends out their banana costumes, organises seminars about sustainability issues and provides marketing materials. The university might implement an overall sustainable development week into the Fairtrade week if they choose to educate students on a wider scale. It is possible to focus on coffee and tea, but FT can give options for extending to other products. Furthermore, when the university makes acquisitions, Fairtrade should be evident in those as well. For students and staff who experience climate anxiety, Fairtrade can be a concrete way to 'do something'. Knowing what the certification means for the producers makes it easy to make better everyday choices. In this sense, Fairtrade could be considered more as a mindset and a commitment. A summary of the main qualities of the certification is shown in Table 1.

Table 1. Fairtrade comparison

Advantages	Disadvantages
• No fees or payments • Well known (globally and nationally) • Simple and easy to use • Ready materials for campaigns • Can be combined with overall SD work • Might help with climate anxiety • Engaging the whole organisation	• Focuses mainly on products • Needs some amount of time and human resources • Not overly ambitious • Does not work as an EMS

4.3 Global Compact

The only Finnish university that is part of the Global Compact (GC) is LUT University, so it was not possible to get another interview from Finland on the topic. The findings from the interview provided to be interesting, and GC turned out to be a potential option for Jamk. The requirements for Global Compact include yearly reporting, as the other certificates do. If a UAS wants to join, it will most likely join as a corporate member, whereas a university joins as an academic institute, but the difference is caused by the ownership structure. The corporate membership is a bit more expensive but offers all the benefits that are available when joining (participant membership). There is a cheaper option as well (signatory membership), but the benefits are more limited. The costs include yearly fees, but they are based on annual gross sales, so they are not directly comparable to a number-of-employees-based fee. For Jamk, Global Compact membership would cost 2500 euros yearly, so it is considerably cheaper than Green Office.

The benefits are equivalent to other certifications, but GC's requirements for reporting are very strict, according to LUT interviewee. This can be considered a good thing because it encourages the joining organisation to take more ambitious steps towards sustainability. If the requirements in the reporting are not met, the organisation is dropped out of the initiative. When it comes to sustainability, the content that GC offers is more diverse than what Green Office offers. The benefit of this depends on what the institute is looking for. GC organises several different courses and webinars, which are automatically available to every employee. Therefore, if this is something that the institute considers important, there is a definite benefit.

Interviewing Glasgow Caledonian University (GCU) about their Global Compact membership was not as straightforward. The GCU interviewee said that GC does not go through him (their sustainability expert), which was a very different setting than in LUT's case. The interviewee also said that the SDG Accord, which they were part of, was practically the same as GC, but tailored for universities. After the interview, GCU's Global Compact manager answered via email:

> *"PRME [Principles of Responsible Management Education network] is now the primary engagement point for all HEIs that wish to associate with Global Compact - since last year, all HEI members of Global Compact have been transferred to PRME."*

This was very interesting information, as Jamk's School of Business was already part of the network. This change took place in late 2021, and every institute that wants to associate with Global Compact should now look to PRME. Questions for Jamk's PRME responsible unveiled some insights about the PRME network. It is curated mainly for business schools, as the core is in responsible management, and it has a joining fee. As only Jamk's School of Business has paid for joining, they are visible in the PRME listing. In this sense, it is not suitable for the whole organisation. In Finland, many other business schools (both academics and UASs) are part of it. Jamk's person in charge had not received any information that Global Compact members would have been transferred to PRME, so the network has not probably changed in any way for existing members. There was no easily found public information about this change, so Global Compact no longer seems to be a viable option for universities. However, this topic should be researched further.

4.4 EcoCompass

EcoCompass is both an EMS and certification, as is Green Office. It is based on the ISO 14001 standard, but it has been tailored to be easily understandable and simple to use. It has been created to suit the needs of smaller enterprises who have thought the ISO system is too heavy and complicated. EcoCompass was originally owned by cities in southern Finland but given the need for the system on a national level, has since moved under the ownership of SLL (*Suomen Luonnonsuojelulitto*). It still operates in Finland only, as they do not have sufficient knowledge of international environmental legislation to take it abroad. EcoCompass focuses mainly on the ecological sustainability dimension, but indirectly, they consider the others as well. This is most evident in acquisitions the organisation does.

Universities have not used their system to certify the whole organisation, so Jamk would be piloting this. Piloting something has risks, but there could be communicational benefits to it. An interview with the TUNI Community's EcoCompass coordinator revealed interesting user experiences from using the system. They did not have long-term experiences, as the system had been acquired a year ago. EcoCompass was their first EMS, but it focuses only on the property

services, not other parts of the university. Overall, the interviewee thought that EcoCompass would not be suitable for a whole university, as managing the system to the fullest would be near impossible. This mindset was also shared by the other EcoCompass interviewee from Gradia, who currently worked for Jamk. She also added that universities should not look towards one-fits-all certification, but rather start from smaller areas and then widen the scope. EcoCompass' main downside is that is it not globally known, so international stakeholders might not find it important or trustworthy (compared to WWF Green Office or Fairtrade). However, neither of the interviewees considered this to be a major disadvantage.

Requirements

EcoCompass has ten criteria that the acquiring organisation must commit to. The Eco Expert whose services are included in the payment will help in attaining these criteria. These are in short:

1. Environmental legislation
2. EcoCompass contact person (from the acquiring organisation
3. Setting scores to environmental effects
4. Environment commitment
5. Internal education
6. Waste management plan
7. Hazardous waste
8. Chemicals
9. Environmental program
10. Reporting

Building the system usually takes approximately four to six months, and after about a year the organisation is ready for the first audit. The expert is continuously in the process, but most of the work falls to the organisation. EcoCompass aims to help build a system that works for the specific organisation and their needs, so they do not want the process rushed through. There are usually three to five meetings with the expert during the building process, and they give some tasks in between. After the audit has been passed the system is managed regularly. There is usually one meeting with the expert per year, as the reporting is also done annually. The system itself consists of software, and there is no requirement for additional external reporting. As EcoCompass has been tailored to suit smaller enterprises as well, they understand that companies might not have a dedicated person to work with the environmental and sustainability work. Thus, the system is meant to operate in the background.

EcoCompass has different sectors that the organisation can focus on at a time (Figure 6). At least two areas from the 'pie' need to be taken as the focus points in the building process. These areas can be changed, as the point is for them to be improved upon. When the organisation has attained a sufficient level of waste management, for example, there is no need to specifically focus on that area anymore.

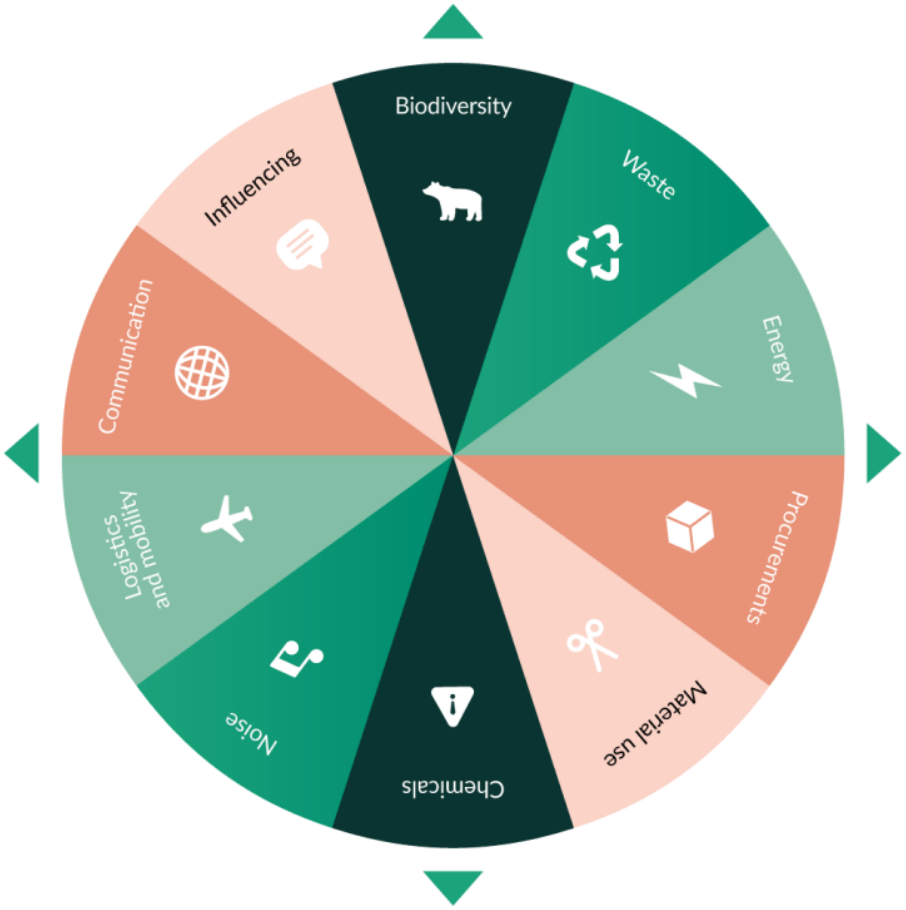

Figure 6. EcoCompass areas
(From Ekokompassi, n.d. d)

The building process itself requires some expertise (and motivation) from the coordinating person, along with the Eco Expert's work. An important point from an interviewee highlighted this: "*It is possible that the managerial level does not always understand the full scope of building and EMS: it is not done with just the flick of a hand*". The hardship might also be caused by the need to educate and commit every staff member to the system. It is not enough that just the coordinator or the team understand what is needed, but rather the whole organisation and the managerial

level needs to know the requirements and focus areas and commit to those in the daily operational work. Therefore, multiple interviewees thought that the system works better with a specific focus area, and not the whole organisation.

Costs

EcoCompass price for larger organisations (over 5-million-euro revenue) is case-specific. As the price varies based on the organisation, its revenue, and the estimated time it will take to build the system, the specific price offer for Jamk will not be disclosed. The building price will be paid only once. The price consists of the working hours of the Eco Expert, so it is an estimate of the hours needed to build the system. The price includes the reporting software, materials and using the certificate's name. The audit is done after the first year, afterwards every three years. The fee is paid by the hour, which is 90 euros, and it will be paid to the auditing company, not to EcoCompass. Current tax and daily allowances are not included in the fee. It is possible that the audit is not passed on the first try. There is a time limit of 30 days to improve the issues to get the accepted certification, depending on their nature. When the improvements have been made, there is no need for another audit visit, although some extra working hours might be included in the fee for this.

After the first audit has been passed, there is an annual fee, which is also case-specific. This includes the same features as the building fee, in addition to educational courses and one meeting with the expert per year. More meetings can be bought when needed. The TUNI interviewee noted that the fees to EcoCompass or the auditing company are non-existent compared to the actual working hours and management. Therefore, resourcing needs to be done carefully and allocate the right people to coordinate the work. Educating the rest of the staff takes some time as well, so the coordinating team must be motivated for the work.

Benefits

EcoCompass is governed by SLL, so the profits the company creates go 100 per cent to Finnish environmental work. They have done brand conspicuousness research, and it is well known on the municipal level, and more so in southern Finland (due to its history). However, the numbers are

steadily increasing, as they have about 100 new customers yearly. As they nowadays operate under SLL, it is added value to most customers and stakeholders. EcoCompass is also a very concrete system. They want the environmental work to be real actions at the operative level, not just reporting and managing abstract systems. Implementing sustainability in the operative work might be easier with the guiding system. It also helps in focusing the work on the areas that are important at that specific time. There is no need to repeat work that has been done already. For example, if the chemical list has already been done, the expert only checks that it is correct, up to date and following the current legislation properly. As information such as this is stored in their reporting system, there is no possibility of the information disappearing. The software also produces ready tables and graphs to use in marketing, which saves time. EcoCompass offers specific courses regarding visual reporting, such as using BI-graphs (Microsoft Power BI software). They have other lectures and webinars as well, such as carbon footprint calculations, ecological diversity, waste management legislation or CSR in communications. Every employee can participate in these. EcoCompass recommends that educating the staff about the system is done by sector, as their work differs considerably based on the areas and departments.

Overall, EcoCompass is more flexible and in-depth than, for example, the Green Office. EcoCompass overviews the bigger picture in the environmental work. It aims to evaluate which areas are important, such as logistics, acquisitions, travelling, environmental diversity, communication or influencing. The universities have a big role in most of these. Even though the system is flexible, it is not lax. They do not allow their customers to just work on paper: instead, they require concrete steps and measures to undertake. When asked about the choice to choose EcoCompass, one interviewee's answer was simple: Green Office was too light and unsuited for universities, whereas ISO 14001 is too heavy and complicated. EcoCompass was also cheaper compared to these two.

EcoCompass' greatest benefit is the Eco expert who helps the organisation personally. The expert's work ensures that the system gets tailored to suit the specific needs and requirements of the organisation. This means the system is not limited to specific industries or certain sized companies. The expert's work directly lessens the amount of extra work the organisation must source for the upkeep and building. They will answer questions and point out areas of improvement, and their task is to notify about important details, such as legislative changes. It is

possible to purchase additional guidance from the expert. For example, the company wants to create a full responsibility report for public use, and they require help with it. This creates indirect monetary savings, as the internal employees do not need to use the working time for learning the details. In conclusion, the customer is not left alone, and important work is carried out.

EcoCompass is not doing the certification audits, but rather a third party. This ensures that the environmental work is assessed objectively. Independent auditors create a better sense of quality and give a truthful image of the situation in the organisation. EcoCompass lets its customers choose which auditor they want to use. There are multiple options, and for instance, the TUNI Community wanted someone with a lot of expertise and a history of audits, and who would have some grasp of the educational field.

In the case of universities, students could perceive these concrete actions positively. The representative's opinion was that their system might help increase employee wellbeing and overall commitment to the work. In some cases, better handling of hazardous chemicals and waste directly improves work safety, but this is probably not something that a university should be worried about. Finally, as perceptions are considered, having a trustworthy certification can be an advantage in competitive tendering, both for the university and its potential customers. Acquisitions and investments need to consider sustainability-related issues increasingly. Thus, the university itself can answer to rising demands for environmental responsibility, and it might help them decide who to buy from.

The main idea behind the EcoCompass system is continuous improvement. Interviewees have said that the system has helped in making the environmental work more systematic, assigning responsibilities, monitoring, and making sustainability work known. It has created monetary savings with for example energy efficiency. It helps with managing the changing legislations, and as the demands for ambitious sustainability effort is on the rise, the system makes it easier to remember. If the need arises to acquire specific information relating to environmental work, every staff member knows that this system is in use, and everything is reported under it. The concrete numbers and meters the software gives are helping internal and external communication. Both share- and stakeholders might appreciate the clear measures in which the company has improved their environmental work. A summary of EcoCompass' main qualities can be seen in Table 2.

Table 2. EcoCompass comparison

Advantages	Disadvantages
• Flexible • Not as expensive as some EMSs • Help from the expert • Indirect monetary savings • Courses and education • Ambitious • Tailored to specific organisations • Profits go to SLL • Third-party audits • Possible to buy more help • Easy reporting • Concrete and hands-on • Ready communication materials • Better than ISO14 or GO	• Requires a hefty investment • Their newsletters are not that good • System currently has both the old style and new at the same time = confusing • Might not work that well with large and complicated organisations • Not known outside Finland

4.5 Suitable certifications

In the end, there was not an abundance of suitable certifications. As new information emerged, some options were automatically left out as unsuitable ones. The possibilities included ISO 14001, which was excluded from the start, but data would have shown it to be too heavy and narrow to suit the needs of universities. Green Office is still used by universities to some extent, but it suits the traditional office environments better. Vihreä lippu (Green Flag) is not available for universities. OKKA certification is not yet a possible choice, but this might change in the future. Global Compact seemed like a valid option, but the data revealed that this had changed. There was no information easily available to research its changes further, so GC was deemed unsuitable. Finally, it was also possible to have an internal EMS (no third-party certification) as the main guiding system in the sustainability work, but this had some downsides and was not in line with the commissioner's requirements.

The main research question was "which sustainability certificate(s) or environmental management systems would be suitable options for a Finnish higher education institute to get"? The supporting questions served with the data analysis, so they have been answered in the previous chapters. The answer to the main research question was complicated. Purely cost-benefit wise, the only suitable certifications were the **Fairtrade University and College certification**, and **EcoCompass**

certification/EMS. These two certificates offered the highest value in terms of sustainability and benefits, but they consider the sustainability dimensions in their own way. Fairtrade is well-known globally, easy to use and a concrete way to engage in the social dimension, but it is not as wide and thorough as an EMS. It is not enough to guide the sustainability work of the entire university, but it helps with making social issues visible to students and other stakeholders. EcoCompass is the most flexible and ambitious of the EMSs and gives the best value for its costs. However, the lack of global conspicuousness might be a major downside. It also focuses mainly on the ecological dimension, so these two certificates are acquired for different reasons. Both have concrete benefits specifically for Jamk, but Jamk's requirements and needs are most likely similar to other Finnish UASs as well.

It is up to the university to thoroughly consider the needs they have and what is the desired benefit of the certificate in question. For example, if the applying university works together with multiple international stakeholders, then having EcoCompass might not give as much value as, for example, WWF Green Office would as a brand. Green Office has been the most common EMS in Finnish higher education, but the number of users has steadily dropped. The results showed that Green Office does not bring concrete value for its costs, as it was best suited for traditional offices, not in education. EcoCompass is not tailored for schools either, but as it is very flexible, it was the best and most thorough EMS a university could get. There was no suitable option to measure the sustainability of teaching itself, as OKKA and Vihreä lippu were not available for HEIs. Global Compact serves as a certification, but with recent changes in the initiative, it was no longer an option. As the contents of international certifications differ depending on the country and EcoCompass is not available abroad, these results are valid mainly in Finland.

5 Discussion

5.1 Summary of the research

The purpose of this thesis was to research sustainability certificates and EMSs and their usage in higher education. The commissioner of this thesis was Jamk UAS and the Sustainable Development team. They needed this research to help determine if some certificate(s) would be suitable for Jamk to acquire and complement the internal sustainability work. There was some research done before, but not as thorough as this. The scope included Finnish and foreign universities. The

literature review consisted of defining sustainable development, different certificates, and their terms and how all of them are visible in higher education. The research approach was qualitative and the semi-structured interview questions were formed with a qualitative cost-benefit analysis perspective.

The data collection consisted of six interviewees, five schools and three 'presentations' from organisations. The certificates researched were WWF's Green Office, Fairtrade University, EcoCompass, ISO 14001 (as a background knowledge), along with others, such as the Global Compact initiative, sustainability networks, rankings, and commitments. The results showed that the options for higher education institutes in Finland are scarce, as, for example, the international EcoCampus is not available here as is. The answer to the main research question was that the EcoCompass EMS/certification is the most suitable option for higher education, along with the Fairtrade University certification, as seen in chapter 4.5.

5.2 Implications

Overall, the field of certifications and EMSs is somewhat unclear and complicated. The common answer to having whatever EMS in use is that the benefits outweigh the costs. Any externally supervised certification ensures that there is a third party evaluating the sustainability work of the university. It also makes the organisation think about the smaller things they are doing internally, like the environmental aspect of acquisitions and actions. If the sustainability work in the university is only just beginning, a certification gives a good kick-start and sets nice guidelines and frameworks to follow.

Some stakeholders might not require, or even know about external certification and what it means (for example students). The consensus was, however, that being certified ensures that the university not only markets itself as sustainable but has actual proof for it. The core idea is the same as external parties making the audit of the accounts for a company, and not the company itself. The monetary savings were difficult to quantify, and it is nearly impossible to measure which actions resulted from which certificate. Still, the development ideas and suggestions the university gains from the audits induce both direct and indirect savings, the first being for example decreased paper and water consumption and energy efficiency.

Having an EMS is not very visible to students and stakeholders. It is something that the university does mainly for itself, even though it has implications for stakeholders and the wider economy. It might still be difficult to communicate these actions to the regular students, which is why the global and national brand conspicuousness plays an important role. In this sense, Fairtrade University is the easiest choice to start with, as it is well known and offers concrete ways to educate students and engage the whole university organisation. For the student union of Jamk, it would be near impossible to acquire a paid certification with significant reporting needs. Fairtrade offers a lot of material to use, and even though it is a certification with concrete requirements, it serves as a commitment and an ideology. The Fairtrade Week is something that could be easily widened to an overall sustainable development theme week. Fairtrade's benefits are its conspicuousness and hands-on actions: it is easy for students to understand that they can make minor changes in their day-to-day life by purchasing fairtrade goods.

Even though EcoCompass was the best suited EMS, their yet-developing conspicuousness is something to think about. If the university feels that they already do quite a lot of internal measures and actions towards sustainability, an 'unknown' certificate might not bring all the benefits they wish for. In this case, the Green Office certificate might seem like the best option, but user experiences showed that universities cannot use it to the fullest. There is the option to join the different networks and commitments as well. However, being part of something like these is not equal to certifying a whole university. With this in mind, joining the SDG Accord at some point might be a good substitute for the Global Compact initiative.

5.3 Academic relevance

There were similarities found in the thesis results that were in line with the existing literature on the topic. The user experiences from the interviews proved what other authors had stated about the importance of committing the entire staff and managerial level to the sustainability work (Malinen, 2013; Sirviö, 2010; Viebahn, 2002). The interviewees shared experiences from the managerial level, such as the 'blindness' of management: they can seem to be very interested in the idea of acquiring a third-party certification but fail to see the major amount of work that the process needs, as well allocating sufficient human resources and time into it. Building an entire EMS strategy for certification is not something that can be easily done alongside daily work. For

the process to be completed effectively, a coordinator needs to be appointed, who has been either a sustainability expert or a student intern.

Both academic literature (e.g., von Oelreich, 2004) and the findings showed that having a proper EMS helps universities with their sustainability work considerably. It seems that students and stakeholders, along with the whole educational community, are increasingly demanding more sustainability actions from the universities they wish to associate with. Therefore, the university must think through its internal strategies and the need for certification. Clarke and Kouri (2009) stated that universities are not driven by market factors as much as other companies, but the results showed that stakeholder opinions are extremely important for universities (for example, what is the global conspicuousness level of a certifying organisation). González-Benitos (2005) and Jay (2019) both stated that the acquiring organisation itself decides the level of motivation for using an EMS: the motivation needs to arise from internal needs of being more sustainable, otherwise the system is inefficient from the start. Otherwise, a well-branded certification will serve only as a cosmetic label, which conscious stakeholders will deem as greenwashing. Thus, this can backfire in the long run: for example, students do not want to apply to a university that employs empty claims.

The global situation was that there is no EMS that would be tailored specifically for universities (Clarke & Kouri, 2009). However, it is unclear if the EcoCampus certification has been created after this finding. In any case, the same situation was evident in higher education in Finland as well. Not one certification focuses on all the sustainability dimensions or takes the actual sustainable education into account. This is an alarming discovery, as the most important role of a university is to educate (Bhandari & Raj, 2019). As Leal Filho et al. (2017) stated, implementing sustainable development into teaching and operative work is usually the hardest part. Even though there is a surplus of sustainability-related actions to take (certifications/EMSs, commitments, rankings, networks, and individual actions), there still is no third-party certified system to ensure the quality of higher education. However, the first step to implementing sustainability into all of these is to create an ambitious EMS. The options are not yet perfect, but in the future OKKA foundation's certification might be a possibility.

The results revealed some information that was lacking in the available academic literature. The reason for Green Office's diminished usage, based on Rastio's (2016) thesis, was that the EMS is not very well suited for universities, and does not offer concrete value for its costs. The reasons were equivalent to Mosgaard and Kristensen's (2020) findings for the discontinued use of the ISO standard. The lack of Global Compact's usage in higher education (in Finland) is most likely caused by not knowing about the system and what it brings and overall, the lack of proper marketing and information (such as the PRME change in 4.3). Finally, the reason why EcoCompass EMS is not used by whole universities was that the system is so ambitious and thorough that managing it on the whole organisational level is extremely demanding. Smaller businesses are best suited for the organisation-wide certification. As for universities, it is suitable for a certain part of operations, such as the property or governance.

5.4 Limitations and future research

This research was not without limitations and difficulties. Overall, getting started without in-depth knowledge of the terminology and definitions was a major limitation, as it hindered the progress considerably. The ever-changing information, mixed research, terms, different systems, and discrepancies made the starting point too wide, and the beginning was slow. In the data collection phase, the information found on the universities' websites was outdated or easily misunderstood. This caused limitations in determining the potential case examples. The interview questions for the final case universities seemed suitable 'on paper', but in practice, they might not have suited the participant in question. This was especially evident in the foreign university's case, as the reality is that there are not too many options that were common in Finland and abroad. Most of the interviewees wanted to answer in the overall sense of what are the benefits and disadvantages of the certificates and systems, and not focus on the individual options. However, it was relatively easy to determine the relevant certificate-specific information from the answers.

Time is usually the most common limitation in research projects, as well as scope in the case of bachelor's theses. In the data collection, some universities did not answer in time, at all, or they proved to be the wrong ones to interview (caused in part by the misleading information on their websites). It was not possible to gather the perfect candidates endlessly, and the commissioners were eager to get the results quite fast, even though the thesis could have been postponed to the autumn return based on personal schedules. Overall, personal qualities were not a limitation, as

my experience as a researcher was sufficient to undertake this project. Unfortunately, a personal loss at the beginning of the process hindered the progress significantly.

There was a difficulty in determining the abstract benefits and costs of the certificates and the interview answers. The aim was not trying to quantify the costs or opinions, and for this, the selected approach was suitable as every interviewee understood the idea. However, there was scarcely any academic literature on the qualitative perspective of cost-benefit analysis. Therefore, the implementation of the approach is largely based on personal justifications and knowledge. Measuring and comparing abstract costs and benefits based on opinions is not overly reliable. This is a clear limitation with the verification of the results, which were analysed in chapter 3.5. Even though the results were planned to be usable by global universities, the outcome of the research is mainly valid in Finnish higher education. The differences in certifications and options are too vast to be reliable outside Finland. However, although the research was based on the needs of Jamk UAS, the results serve any other Finnish HEI as well. The interview answers, where applicable, experienced some saturation. Nevertheless, further opinions and facts would have been needed. The greatest issue with reliability is the scope of the research, which should be narrowed down to acquire more reliability. As the information outdates after some years, and especially the brand awareness of some certifications might change, this aspect needs to be considered if the results are reviewed later.

Ethical issues were considered even more than was necessarily needed. As the focus was on the certificates and opinions based on them, the interviewees retained their anonymity. The discussion of anonymity with the participants could have been more thorough, to make sure if they wanted to be presented with their names and titles. Thus, to make sure each interviewee was treated equally, each one was anonymised and only the relevant information was used. The recordings will be deleted afterwards, as well as other data stored on cloud services.

New data emerged as the data collection and analysis progressed, and at some point, it felt like the research never stops. Further research into Global Compact had to be halted, as otherwise, the scope of the thesis would have stretched too far. This leaves room for further research, and a business opportunity to develop a certification system that would answer the issues that universities face, whilst also taking other things into account. As it is possible that OKKA

foundation certification would be piloted in the future, further research into this possibility is needed. EcoCampus is also a system to make further research on, as Vihreä lippu has not had the resources to advance their certification to HEIs yet. EcoCampus was the main EMS in use at Glasgow University, and many Finnish HEIs would fulfil their requirements, so it could serve as a valid option here as well. Overall, it was hard to determine the answer to the main research question, as the data was heavily opinionated, and the participants all had different background knowledge and personal beliefs. A big limitation is the lack of suitable options for HEIs: in the end, there were only two suitable options for Jamk, as others were excluded. This sets the scope of the research to be relatively narrow.

As Green Office has been interested in developing an updated version to suit HEIs better, according to the interviews, further enquiries on its usage in universities are needed. Global Compact and its benefits for educational institutes are also worth further study, especially with the recent apparent change to PRME. However, the United Nations has several commitments and actions that a university can take part in, thus their benefits regarding sustainability work in higher education needs a closer look. Some universities in the data collection were part of multiple networks and actions. Is this something other HEIs should aspire to, or are their benefits lost in the vast amount?

As mentioned before, the research results and cases outdate. Thus, the thesis process could be repeated after, at minimum, five to ten years. Overall, some more abstract issues should be addressed later. As this research focused on the university's internal perspective and requirements for certification, it is worth researching if the students consider similar qualities important in the university they choose. Do students perceive certifications as a trustworthy measure of sustainability, or do they suffer from the same lack of trust as in the research by Kuluttajaliitto (2022). Finally, a full stakeholder survey should be created to understand the possible importance of global conspicuousness and overall brand awareness of the certificates that universities use. For example, do stakeholders know about the certifications and EMSs and are they considered important or a competitive advantage. The research could even be repeated with a mixed-method or quantitative questionnaire, to get a larger sample of participants and concrete data for the cost-benefit analysis.

References

Alhaddi, H. (2015). Triple bottom line and sustainability: A literature review. *Business and Management Studies*. *1*(2). https://doi.org/10.11114/bms.v1i2.752

Arene. (n.d.). *The rectors' conference of Finnish universities of applied sciences Arene.* https://www.arene.fi/the-rectors-conference-of-finnish-universities-of-applied-sciences-arene/

Arene. (2020). *Sustainable, responsible and carbon-neutral universities of applied sciences – Programme for the sustainable development and responsibility of universities of applied sciences.* https://www.arene.fi/wp-content/uploads/Raportit/2020/Sustainable%2C%20responsible%20and%20carbon-neutral%20universities%20of%20applied%20sciences.pdf?_t=1606145574

Bero, B. N., Doerry, E., Middleton, R. & Meinhardt, C. (2012). Challenges in the development of environmental management systems on the modern university campus. *International Journal of Sustainability in Higher Education, 13*(2), 133-149. https://doi.org/10.1108/14676371211211827

Bhandari, M. & Raj, S. (2019). Environmental management systems in higher education institutions in India: a workplace management approach. *International Conference on Ethics and Integrity in Management and Legal Practices, 9*(3).

Binta, J. (2019). *Q-perheen askel kohti vihreämpää festivaalia* [Analysis of Qstock Festival's sustainable development by units]. [Thesis, Seinäjoen ammattikorkeakoulu]. Theseus. https://urn.fi/URN:NBN:fi:amk-201905037502

Ciscell, G. M. (2010). Beyond CO2lonialism: the potential for fair trade certification to embrace voluntary carbon offsets*. Int. J. Sustainable Society, 2*(2), 121–132.

Clarke, A. & Kouri, R. (2009). Choosing an appropriate university or college environmental management system. *Journal of Cleaner Production, 17*(11), 971-984.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed method approaches*. (4th ed). Sage Publications.

Education Race to Zero. (2022). *Resources.* https://www.educationracetozero.org/resources/5

Eetti. (2022). *Mikä tahansa merkki ei tee suklaasta vastuullisempaa* [Labels do not make chocolate more responsible]. https://eetti.fi/2022/02/14/mika-tahansa-merkki-ei-tee-suklaasta-vastuullisempaa/

Ekokompassi. (n.d. a). *Valintaopas: Ympäristömerkit ja -sertifikaatit yrityksille* [Guide: environmental labels and certificates for companies]. https://ekokompassi.fi/valintaopas-ymparistomerkit-ja-sertifikaatit-yrityksille/

Ekokompassi. (n.d. b). *Ympäristövastuun osa-alueet* [Sectors of environmental liability]. https://ekokompassi.fi/ymparistojarjestelma/yritysvastuu/

Ekokompassi. (n.d. c). *Asiakkaamme* [Our customers]. https://ekokompassi.fi/asiakkaamme/
Ekokompassi. (n.d. d). *Briefly in English*. https://ekokompassi.fi/briefly-in-english/

Elamin, N. E. A. & Fernandez de Cordoba, S. (2020). *The trade impact of voluntary sustainability Standards: a review of empirical evidence.* (UNCTAD Research Paper No. 50.) United Nations. https://doi.org/10.18356/4c33dff1-en

European University Association. (2018). *Universities and Sustainable Development Towards the Global Goals.* https://eua.eu/resources/publications/798:universities-and-sustainable-development-towards-the-global-goals.html

Fairtrade. (n.d.). *Carbon credits*. https://info.fairtrade.net/product/carbon-credits

Ferrón Vílchez, V. (2017). The dark side of ISO 14001: The symbolic environmental behavior. *European Research on Management and Business Economics, 23*(1), 33-39. https://doi.org/10.1016/j.iedeen.2016.09.002

Golubevaitė, L. (2008). Eco-labelling as a marketing tool for green consumerism. *Global Academic Society Journal: Social Science Insight, 1(*3), 25-36.

González-Benito, J. & González-Benito, O. (2005). An analysis of the relationship between environmental motivations and ISO14001 certification. *British Journal of Management, 16*, 133–148. DOI: 10.1111/j.1467-8551.2005.00436.x

Harjuoja, J. (2016, January 14). *Accreditation and certification; objectives and the main differences*. FINAS. https://www.finas.fi/sites/en/topical/articles/Pages/Accreditation-and-certification;-objectives-and-the-main-differences.aspx

Harris, J. M. (2000). *Basic Principles of Sustainable Development*. (Working paper no. 00-04). Global Development and Environment Institute.

Heiskanen, E. (2004). *Ympäristö ja liiketoiminta: arkiset käytännöt ja kriittiset kysymykset* [Environment and business: customs and critical questions]. Gaudeamus.

Holden, E., Linnerud, K. & Banister, D. (2014). Sustainable development: Our common future revisited. *Global Environmental Change, 26*, 130-139. https://doi.org/10.1016/j.gloenvcha.2014.04.006

Huutoniemi, K. (2014). Vertaileva tapaustutkimus [Comparative case research]. In Massa, I. (Ed.), *Polkuja yhteiskuntatieteelliseen ympäristötutkimukseen* [Social science ways to environmental research]. Gaudeamus.

International Organization for Standardization. (2015). *Environmental management systems - Requirements with guidance for use* (ISO Standard No. 14001:2015). https://www.iso.org/standard/60857.html

Jamk. (n.d.). https://www.jamk.fi/fi/jamk

Jay, C. (2019). *Ympäristö- ja energianhallintajärjestelmien sertifioinnin ylläpitovaatimukset ja hyödyt energiayhtiössä* [Demands and benefits of environment and energy management system certifications in energy companies]. [Master's thesis, LUT University]. LUTpub. https://urn.fi/URN:NBN:fi-fe2019080223405

Johnston, P., Everard, M., Santillo, D. & Robèrt, K-H. (2007). Reclaiming the definition of sustainability. *Environmental Science and Pollution Research, 14*(1), 60-6. http://dx.doi.org/10.1065/espr2007.01.375

Kallinen, T. & Kinnunen, T. (n.d.). In Vuori, J. (Ed.), *Laadullisen tutkimuksen verkkokäsikirja* [Qualitative research handbook]. [Tampere Finnish social science data archive].

Kananen, J. (2013). *Design research (applied action research) as thesis research*. Jamk publications.

Kestäväkehitys.fi. (n.d.). *What is Sustainable Development?* https://kestavakehitys.fi/en/sustainable-development

Knuuttila, K. (2021). *Toimenpiteitä ammattikorkeakouluille kohti hiilineutraaliutta ja kestävyyttä* [Actions for universities of applied sciences toward carbon neutrality and sustainability]. [Jyväskylän ammattikorkeakoulun julkaisuja 298]. https://www.jamk.fi/fi/Tutkimus-ja-kehitys/JAMKin-julkaisut/Julkaisuja/toimenpiteita-ammattikorkeakouluille-kohti-hiilineutraaliutta-ja-kestavyytta--jamkjulk298/

Koppa. (2010). *Method map.* https://koppa.jyu.fi/avoimet/hum/menetelmapolkuja/en/methodmap/methodmap

Koppa. (2015). *Menetelmäpolku* [Method map]. https://koppa.jyu.fi/avoimet/hum/menetelmapolkuja/menetelmapolku

Kuiri, M. (2014). *Utilizing environmental management system in a new market area : barriers and benefits; case WWF's green office in Vietnam*. [Master's thesis, University of Jyväskylä]. JYX Digital Repository. http://urn.fi/URN:NBN:fi:jyu-201409042717

Kultalahti, A. & Vartiala, S. (2016). *Kaalimaan vartijat: Näkökulmia työelämän oikeuksia tarkastelevien sertifiointi- ja auditointijärjestelmien laatuun* [Views on audit and certification systems regarding working life rights]. Finnwatch. https://finnwatch.org/images/pdf/KaalimaanVartijat_web.pdf

Kuluttajaliitto. (2022). *Ympäristöväitteet ja viherpesu*. [Environmental claims and greenwashing]. https://www.kuluttajaliitto.fi/viherpesuviisari/

Laaninen, E. & Linte, J. (2019). *Kestävän matkailun kehitys Fiskarsin Ruukissa* [Developing sustainable tourism in Fiskars' Ruukki]. [Thesis, Haaga-Helia ammattikorkeakoulu]. Theseus. https://urn.fi/URN:NBN:fi:amk-201904024194

Leal Filho, W. (2011). About the role of universities and their contribution to sustainable development. *Higher Education Policy, 24*(4). https://doi.org/10.1057/hep.2011.16

Leal Filho, W., Jim Wu, Y-C., Londero Brandli, L., Veiga Avila, L., Azeiteiro, U. M., Caeiro, S. & da Rosa Gama Madruga, L.R. (2017) Identifying and overcoming obstacles to the implementation of sustainable development at universities. *Journal of Integrative Environmental Sciences, 14*(1), 93-108. https://doi.org/10.1080/1943815X.2017.1362007

Lehtonen, V. (2021). *Ympäristöjärjestelmän laatiminen ISO 14001 -standardin mukaisesti HoviRuoka Oy:lle* [Creating an environmental management system based on the ISO 14001 standard for HoviRuoka Oy]. [Thesis, Savonia ammattikorkeakoulu]. Theseus. https://urn.fi/URN:NBN:fi:amk-2021120824445

Lumme, M. & Tikka, S. (2021). *Ränkkää brändi 2021: suomalaisten vaatemerkkien ilmasto-, ympäristö- ja ihmisoikeustyö ja läpinäkyvyys* [Rank a Brand 2021: Finnish clothing lines' corporate social responsibility and transparency]. Eetti ry. https://eetti.fi/wp-content/uploads/2021/12/eetti_rankkaabrandi_vaatteet2021.pdf

Malinen, L-M. (2013). *Could a cooperation network between Finnish universities advance adoption and success of Green Office environmental management system?* [Master's thesis, University of Jyväskylä]. JYX Digital Repository. http://urn.fi/URN:NBN:fi:jyu-201312122787

Marx, A. & Wouters, J. (2015). Is everybody on board? Voluntary sustainability standards and green restructuring. *Development, 58*, 511–520. https://doi.org/10.1057/s41301-016-0051-z

Melnyk, S. A., Sroufe, R. & Calantone, R. (2003). Assessing the impact of environmental management systems on corporate and environmental performance. *Journal of Operations Management, 21*(3), 329-351. DOI:10.1016/S0272-6963(02)00109-2

Ministry of Education and Culture. (2021). *Sustainable growth programme for higher education in Finland* (OKM049:00/2021). https://okm.fi/en/project?tunnus=OKM049:00/2021

Morse, J., Barrett, M., Mayan, M., Olson, K. & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods, 1*. 1-19.

Mosgaard, M. A. & Kristensen, H.S. (2020). Companies that discontinue their ISO14001 certification – Reasons, consequences and impact on practice. *Journal of Cleaner Production, 260*(1). https://doi.org/10.1016/j.jclepro.2020.121052

Motiva. (2021). *Ympäristömerkit* [Environmental labels]. https://www.motiva.fi/koti_ja_asuminen/kestava_kuluttaminen_ja_hankinnat/ymparistomerkit

Nurse, K. (2006). Culture as the fourth pillar of sustainable development. *Small states economic review and basic statistics, 11*, 32-48.

Orzes, G., Moretto, A. M., Moro, M., Rossi, M., Sartor, M., Caniato, F. & Nassimbeni, G. (2020). The impact of the United Nations global compact on firm performance: A longitudinal analysis. *International Journal of Production Economics, 227*. https://doi.org/10.1016/j.ijpe.2020.107664

Palovaara, M. (2019). *Ekokompassin soveltaminen Napapiiri-Jukolassa 2020* [EcoCompass certificate in Arctic Circle Jukola 2020]. [Thesis, Hämeen ammattikorkeakoulu]. Theseus. https://urn.fi/URN:NBN:fi:amk-201903223629

Pawłowski, A. (2007). How many dimensions does sustainable development have? *Sustainable development, 16*(2), 81-90. https://doi.org/10.1002/sd.339

Pesonen, H-L., Hämäläinen, K. & Teittinen, O. (2004). *Ympäristöjärjestelmän rakentaminen – Suunnittelu, toteutus ja seuranta* [Building an EMS – planning, executing and monitoring]. Talentum.

Puurula, J., Konst, T., Friman, M., & Koivunen, T. (2022). Suomalaiset korkeakoulut kestävää kehitystä edistämässä [Finnish universities advancing sustainable development]. *Ammattikasvatuksen Aikakauskirja, 23*(4), 34–47. https://doi.org/10.54329/akakk.113319

Rasche, A. (2009). "A necessary supplement" what the United Nations global compact is and is not. *Business & Society, 48*(4). https://doi.org/10.1177%2F0007650309332378

Rastio, M. (2016). *Humanistinen ammattikorkeakoulu Humak ja kestävä kehitys: Suunnitelma ekologisen kestävyyden integroimisesta Humakin toimintaan* [Humak university of applied sciences and sustainable development – a plan for integrating ecologically sustainable development into Humak's operations]. [Thesis, Yrkeshögskolan Novia]. Theseus. https://urn.fi/URN:NBN:fi:amk-2016060111218

Raynolds, L. T. (2014). Fairtrade, certification, and labor: global and local tensions in improving conditions for agricultural workers. *Agriculture and Human Values, 31*(3), 499-511. DOI 10.1007/s10460-014-9506-6

Redclift, M. (1991). The multiple dimensions of sustainable development. *Geography, 76*(1), 36-42. https://www.jstor.org/stable/40572018

Reilu kauppa. (2021). *Reilun kaupan korkeakoulut* [Fairtrade universities]. https://reilukauppa.fi/osallistu/reilun-kaupan-korkeakoulut/

Reis, A. V., Neves, F. O., Hikichi, S. E., Salgado, E. G., & Beijo, L. A. (2018). Is IS0 14001 certification really good to the company? A critical analysis. *Production, 28*. https://doi.org/10.1590/0103-6513.20180073

Rogers, K. & Hudson, B. (2011). The triple bottom line: the synergies of transformative perceptions and practices for sustainability. *OD Practitioner, 43*(4), 3-9.

Rogers, P. J., Stevens, K. & Boymal, J. (2009). Qualitative cost–benefit evaluation of complex, emergent programs. *Evaluation and Program Planning, 32*(1), 83-90. https://doi.org/10.1016/j.evalprogplan.2008.08.005

Sabatini, F. (2019). Culture as fourth pillar of sustainable development: perspectives for integration, paradigms of action. *European Journal of Sustainable Development*, *8*(3), 31. https://doi.org/10.14207/ejsd.2019.v8n3p31

Salo, E. (2016). *Voluntary agreements for the achievement of sustainable development goals: Dutch green deals and wrap agreements.* [Master's thesis, University of Jyväskylä]. JYX Digital Repository. http://urn.fi/URN:NBN:fi:jyu-201612024906

Saunders, M., Lewis, P. & Thornhill, A. (2009). Research methods for business students. (5th ed.). Pearson Education.

SDG Accord. (2022). *The SDG Accord.* https://www.sdgaccord.org/

Silverman, D. (2022). *Doing qualitative research*. (6th ed.). Sage Publications.

Simkins, G. & Nolan, A. (2004). Environmental management systems in universities. *Environmental Association for Universities and Colleges.*

Sirviö, M-L. (2010). *Organisaation vihreä työkalu: Green Office -ympäristöjärjestelmän vaikutukset organisaatiossa* [Organisation's green tool: impact of Green Office EMS in an organisation]. [Master's thesis, University of Jyväskylä]. JYX Digital Repository. http://urn.fi/URN:NBN:fi:jyu-201008242486

Sitra. (n.d.). *Tulevaisuussanasto – Kestävä kehitys* [Future dictionary – sustainable development]. https://www.sitra.fi/tulevaisuussanasto/

Spira F. & Baker-Shelley, A. (2014). Driving the energy transition at Maastricht university? Analysing the transformative potential of the student-driven and staff-supported Maastricht university Green Office. *Transformative Approaches to Sustainable Development at Universities.* https://doi.org/10.1007/978-3-319-08837-2_15

Studentum. (2020, April 2). *TOP 6: Opiskelukaupungit Suomessa – minne hakijat suuntaavat ja miksi* [Study cities in Finland – where applicants go and why]? https://www.studentum.fi/tietoa-hakijalle/top-6-opiskelijakaupungit-suomessa-15511

Suomen Ympäristökeskus SYKE. (2019, August 30). *Ympäristöjärjestelmät ja johtaminen* [EMSs and management]. https://www.ymparisto.fi/fi-fi/kulutus_ja_tuotanto/Ymparistojarjestelmat_ja_johtaminen

Tarí, J. J., Molina-Azorín, J. F. & Heras, I. (2012). Benefits of the ISO 9001 and ISO 14001 standards: A literature review. *Journal of Industrial Engineering and Management, 5*(2), 297-322. http://dx.doi.org/10.3926/jiem.488

Tolppa, M. (2017). *Ekokompassi-ympäristöjärjestelmän markkinatutkimus Tampereella* [Marketing Research of EcoCompass Environmental Management System in Tampere]. [Thesis, Hämeen ammattikorkeakoulu]. Theseus. https://urn.fi/URN:NBN:fi:amk-2017092515348

UI Green Metric. (2021). *How to Participate*. https://greenmetric.ui.ac.id/about/how-to-participate

UN Global Compact. (n.d.). *Who we are.* https://www.unglobalcompact.org/what-is-gc

UN Race to Zero. (2021). *Race to zero campaign*. https://unfccc.int/climate-action/race-to-zero-campaign

UNFSS. (n.d.). *What are Voluntary Sustainability Standards (VSS)?* https://unfss.org/home/about-unfss/

Unifi. (n.d.). *Kestävän kehityksen ja vastuullisuuden teesit* [Theses of sustainable development and responsibility]. https://www.unifi.fi/viestit/kestavan-kehityksen-ja-vastuullisuuden-teesit/

United Nations. (n.d.). *Communication materials*. https://www.un.org/sustainabledevelopment/news/communications-material/

Varusteleka. (2019). *Operation Unethicality Program 2019 - 2021, Phase 1: Recon.* https://www.varusteleka.com/en/article/operation-unethicality-program-2019-2021-phase-1-recon/62315

Viebahn, P. (2002). An environmental management model for universities: from environmental guidelines to staff involvement. *Journal of Cleaner Production, 10*, 3–12.

Vihreä lippu. (n.d.). *Mikä Vihreä lippu* [What is Green flag]? https://vihrealippu.fi/

von Hagen, O., Manning, S. & Reinecke, J. (2010). Sustainable sourcing in the food industry: global challenges and practices. *Moderne Ernaehrung Heute, 4*, 1-9.

von Oelreich, K. (2004). Environmental certification at Mälardalen University. *International Journal of Sustainability in Higher Education, 5(*2), 133-146. https://doi.org/10.1108/14676370410526224

WCED. (1987). *Report of the World Commission on Environment and Development: Our Common Future*. World Commission on Environment and Development. https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf

Wenban-Smith, M. (2013). *Voluntary sustainability standards - today's landscape of issues & initiatives to achieve public policy objectives*. UNFSS. https://unfss.org/wp-content/uploads/2012/05/unfss-report-issues-1_draft_lores.pdf

WWF. (n.d. a). *What is Green Office?* https://wwf.fi/greenoffice/en/what-is-green-office/

WWF. (n.d. b). *Hinnasto* [Prices]. https://wwf.fi/greenoffice/hinnasto/

WWF Suomi. (2019, November 7). *Mitä eroa on ympäristöjärjestelmillä – ja kuinka valitsen sopivimman* [What is the difference in EMSs and how to choose the most suitable]*?* https://wwf.fi/greenoffice/tarina/mita-eroa-on-ymparistojarjestelmilla-ja-kuinka-valitsen-sopivimman/

Yin, R. K. (2018). *Case study research and applications – Design and methods*. (6th ed). Sage Publications.

Ympäristöministeriö. (n.d.). *Mitä on kestävä kehitys* [What is sustainable development]*?* https://ym.fi/mita-on-kestava-kehitys

Appendices

Appendix 1. Data collection Excel of schools

UAS:s	Certificate	Extra information
LAB UAS		Basically same as LUT
Metropolia		
Turku AMK	Fairtrade	
	LEED Platinum	
JAMK	Green Office (expired)	School of business PRME
Laurea		
XAMK	Global Compact (expired?)	
	Green Office	Each campus
Lapin amk		
Vamk		
Tamk/Tuni	Fairtrade, EcoCompass (in part)	A lot of other networks, accords and rankings
OAMK	Green campus (vanha?)	
Seamk		
Savonia		
Samk		
Karelia		Used to have Green Office, aiming for ISO 14001
Hamk		Green Metric World University rankings
Humak		
Kamk		
Haaga Helia	ISO 14 (one campus)	Committed to acquiring Green Office or some other certification
Arcada	Green Office	
Universities		
Oulu university		
JYU	Fairtrade, Green Office	Other actions
Aalto university		Other actions
Eastern-Finland Uni		Taken part in rankings and others
LUT university	Green Office, Global compact	Green campus?
		Other actions and commitments

Appendix 2. Interview questions

Note: the interview questions were slightly modified with each interview to suit the responding university better.

1. **What certificates/systems the university currently has in use?**
    a. Have you considered others before, that were deemed not suitable (for example, something was too expensive/not offering any benefits)?
    b. Were there any others in the past that have been given up?
2. **What is the usefulness of the current certificates to the university?**
    a. Pros, cons, added value
    b. Rough estimate how much time/working hours it takes for the team/person in charge
    c. What are their costs (do they bring revenue to the organisation?)
    d. How do the students perceive these / do students value them?
3. **Do you have any other sustainability measures in use?** (do not require regular reporting)
    a. E.g. sustainability networks, competitions/rankings...
    b. How is their usefulness?
4. **What kind of process it is to acquire a certain certificate?** (for each)
    a. Tons of reports and data to gather, or lower bar and no expectations of perfection from the start?
5. **How have the certificates helped in guiding the sustainable development/sustainability work of the university?**
    a. Do they easily follow the different dimensions of sustainability? (ecological, economical, social/cultural)
6. **Are there benefits/downsides of using multiple systems/certs**
    a. Does it have any challenges in practices, like separate reporting
    b. Or do they complement each other and work well together
7. **Which certificate would you recommend with your current knowledge to another school?**
    a. Cost-benefit analysis perspective, what certificate has more benefits than costs (incl. non-monetary costs, like human resources)

In memory of my sister