

# Social and Economic Sustainability Tensions in the Finnish University System

Perspectives from two University Managements and the Ministry of Education and Culture

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**Abstract**

Universities have been, and still are, the leading institutions of knowledge production. Global competition has reached to the higher education sector and the talk of the new social contract between higher education and societies has been on the table since 1980's. In Finland the Universities Act reform was enacted in 2009 starting a broader societal conversation of the role, meaning and mission of the university institution. Lately Finnish higher education sector has gone through a rough path. Substantial cuts have been performed in the budget of universities since 2015 and although small compensatory investments have been made, the direction of public funding in higher education appears to be declining and aligning the global trend of increasing marketization of the higher education system. Besides being crucial assets to nation-states and companies, information and knowledge are needed in order to find pathways towards more sustainable practices. In the times of the current planetary crisis, a well functioning, sustainable university system is more important than ever.

This thesis focuses to study the social and economic sustainability tensions in the Finnish university system and seeks answer to the question: "What kind of social and economic sustainability tensions exist in the Finnish university system?". The theory of the thesis is based on the integrative framework by Hahn et al. (2015), which was developed to study the tensions in the field of corporate sustainability. Recognizing the tensions and contradictions help organizations to see a broader spectrum of possible strategies in order to strive for more sustainable ways of operating.

This study follows the qualitative research tradition, the ontology of the study is social constructionism and subjectivism, and the methodology is phenomenology. The empirical part of this study consists of 11 semi-structured interviews of the management of two Finnish universities and of the senior officials of the Ministry of Education and Culture of Finland working with higher education policy.

The contribution of this thesis is, first of all, to view Finnish higher education through the emergent modern corporate sustainability lens uniting the perspectives of sustainability studies, political science, higher education studies and management studies in the theoretical framework. Secondly, this thesis provides three management perspectives from different, opposite sides of the Finnish university system and thirdly, forms a systemic perspective of the Finnish university system and its' social and economic tensions. Based on the findings, there are eleven sustainability tensions in the Finnish university system. The most strongly perceived tensions according to this study were the tensions regarding pressure on the 'public purse' and pressures for societal impact and interaction.

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**Keywords** higher education studies, integrative framework, sustainability tensions, university system

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**Työn nimi** Sosiaaliset ja taloudelliset kestävän kehityksen jännitteet suomalaisessa yliopistojärjestelmässä – näkökulmia kahden yliopiston johdosta sekä opetus- ja kulttuuriministeriöstä

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### Tiivistelmä

Yliopistot ovat olleet ja ovat edelleen maailman johtavia tietoa tuottavia instituutioita. Globaali kilpailu on saavuttanut myös korkeakoulutussektorin ja korkeakoulutuksen sekä yhteiskunnan uusi yhteiskuntasopimus on ollut 1980-luvulta saakka aktiivisen keskustelun aihe. Yliopistolain uudistus vuonna 2009 aloitti laajemman yhteiskunnallisen keskustelun suomalaisen yliopistolaitoksen roolista, merkityksestä ja tehtävistä. Viime aikoina suomalaista korkeakoulutussektoria ovat kohdanneet rankat ajat. Merkittäviä leikkauksia on suoritettu yliopistojen budjetista vuodesta 2015 lähtien ja vaikka pieniä korjaavia investointeja on leikkausten jälkeen tehty, korkeakoulutuksen julkisen rahoituksen suunta näyttää laskevan ja mukailevan näin globaalia korkeakoulutuksen markkinaehtoistumisen trendiä. Sen lisäksi, että koulutus ja tiedontuotanto ovat tärkeitä varoja valtioille ja yrityksille, tietoa tarvitaan mennessä kohti kestävän kehityksen mukaisia käytäntöjä. Nykyisen ympäristökriisin aikana hyvin toimivan, kestävän yliopistojärjestelmän voidaan sanoa olevan tärkeämpi kuin koskaan aiemmin.

Tämä työ keskittyy tutkimaan sosiaalisia ja taloudellisia kestävän kehityksen jännitteitä suomalaisessa yliopistojärjestelmässä ja pyrkii vastaamaan kysymykseen: "Millaisia sosiaalisia ja taloudellisia kestävän kehityksen jännitteitä suomalaisessa yliopistojärjestelmässä on?". Tutkielman teoreettinen viitekehys perustuu *integrative framework* -viitekehykseen (Hahn et al., 2015), joka on kehitetty tutkimaan yritysten kestävän kehityksen jännitteitä. Jännitteiden ja ristiriitojen tunnistaminen auttaa organisaatioita näkemään mahdollisimman monenlaisia strategioita pyrkiessään kohti kestävän kehityksen mukaisia toimintatapoja.

Tämä tutkimus seuraa kvalitatiivista tutkimusperinnettä, tutkimuksen ontologia on sosiaalinen konstruktivismi ja menetelmäksi on valittu fenomenologia. Tutkimuksen empiirinen osuus koostuu 11 puolistrukturoidusta haastattelusta kahden suomalaisen yliopiston johdon sekä opetus- ja kulttuuriministeriön korkeakoulupolitiikan parissa työskentelevien virkamiesten kanssa.

Tämän opinnäytetyön tarkoituksena on ennen kaikkea tarkastella suomalaista yliopistojärjestelmää nykyaikaisen yritysvastuututkimuksen linssin läpi, joka yhdistää kestävän kehityksen-, politiikan-, korkeakoulututkimuksen ja johtamisen teoriaa. Toiseksi, tämä tutkielma tarjoaa kolmen keskeisen organisaation näkökulmat suomalaisen yliopistojärjestelmään. Kolmanneksi, tutkielma muodostaa systeemisen näkökulman suomalaisen yliopistojärjestelmän sosiaaliin ja taloudellisiin jännitteisiin. Tulosten perusteella suomalaisessa yliopistojärjestelmässä on yksitoista kestävän kehityksen jännitettä, joista voimakkaimmin koetut jännitteet koskivat julkisten resurssien tuomaa painetta sekä paineita yhteiskunnallisen vaikuttavuuden ja vuorovaikutuksen suhteen.

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**Avainsanat** korkeakoulutus, yliopistojärjestelmä, kestävän kehityksen jännitteet

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## List of Abbreviations

EC = European Commission

GERD = Gross Domestic Expenditure invested on research and development

HE = Higher Education

HEI = Higher Education Institute

R&D = Research and Development

R&I = Research and Innovation

# 1. Introduction

## 1.1. Background and Research Problem

The sustainability of universities is a relevant and current topic at the moment in Finland for many reasons. The restructuring of education has started in the 1980's, like in many other European countries, and finally the Universities Act reform in 2009 started a broader societal conversation of the role, responsibilities and liabilities of the university institution in Finland. Also the cuts made in the public university funding in 2015 brought up the conversation of the role, meaning and mission of university as an institution (Pinheiro et al., 2014a).

Finland has been one of EU's and world's innovation leaders after the expenditure on research and development (R&D) sector increased since 1999, with the Gross Domestic Expenditure invested on R&D (GERD) reaching over 3 % until the year 2015 (SVT, 2016). The investments on R&D have diminished since 2012, but Finland still remains among the European leaders in innovation alongside Sweden, Germany, Denmark, United Kingdom and Netherlands, where in addition to GERD, other meters like number of patents, the education of researchers and success as well as the number of publications and the commercialized exports have been taken into account (European Union, European Innovation Scoreboard 2016, pp. 10–14).

The investments in the R&D sector have been relatively high in Finland expediting economic growth and enabling the development of Finnish high-tech industries. That is why many found the decline of GERD so astonishing. In 2015 the GERD decreased from 3,17% to 2,90% and even further to 2,81% in 2016 (SVT, 2016 2017). There are many reasons, why the private sector has divested from R&D. One of them is the slow pace of economic growth resulting from the financial crisis (Pinheiro et al., 2014, p. 8). A big question mark to higher education professionals – as well as other professionals in Finland and on a global level – is, why the Finnish Government has divested from R&D sector, at the time when it would be the most crucial to invest in the future growth of human capital.

The role and the meaning of the university as an institution has become a subject of substantial scholarly, as well as societal, discussion and debate. Knowledge has become central to our society. Today all knowledge-producing institutions from research to higher education have to justify their existence in the global economic competition (Burbules and

Torres, 2000; Mok and Welch, 2003; Deem et al., 2008; Aula, 2015). Universities are seen as competitive actors, which the competitive academic field requires to position strategically (Wedlin, 2008). The global trend of mergers between universities is an example of the global competition, which compels the actors of the academic field rationalize their operations (Altbach, 2004; Aula, 2015). The global higher education reform trend has pushed universities to become increasingly managerially and financially autonomous from the state (Krejsler, 2006).

The same trend is taking place in Finland. In 2014 The Research and Innovation Council of Finnish Government released the Reformative Finland: Research and Innovation Policy Review 2015–2020 (2014), a radical reform of the Finnish higher education system. Funding of the university sector was discussed in the review and stated that universities will receive government funding on the condition of expediting their structural development (Research and Innovation Council, 2014, p. 27–29). In order to make the funding suffice, reductions in the number of researchers and other adjustments had to be made. According to the reform, the investments in universities were to be focused on the strengths of research and education, reorganization of education and research functions between universities and fields, and on the societal impact of universities (*ibid.*). The reason for this reform seemed to be that the efficiency level and the return of the prevailing investments made in the R&I sector was not satisfactory to the Finnish Government.

Universities are expanding globally as an institution, where significant increases in enrolment, and growth in the number of areas being studied can be noticed (Frank & Meyer, 2007). The pressures for increasing openness and interaction with the communities inside and outside academia, are growing (Funtowicz and Ravetz, 1993). Whereas universities were previously perceived as providers of teaching and research within formal and theoretical domains of interest, they are today increasingly thought of as entities operating in the intersection of different institutional domains (Stevens et al. 2008; Wedlin 2008; Aula, 2015). The universities of today are expected to be better integrated with society, be closer to business and industry sectors while producing more efficient and innovative solutions to public and societal needs (Wedlin, 2006; Deem et al., 2008; Aula, 2015). There is a global need to redefine the social contract between society and higher education (Gornitzka et al., 2007;



Maassen, 2014), which can be detected from the multi-toned discussion around societal interaction and impact of the HEIs (Miettinen et al., 2015).

The claim for societal impact of Finnish universities, known also as the third mission of universities, was established in 2004 (715/2004, 4 §). According to the Universities Act “*the task of universities is to promote free research and scientific and artistic education, to provide higher education based on research, and educate students to serve their country and humanity. Carrying out their mission, the universities shall promote lifelong learning, to interact with society and promote the societal impact of research findings and artistic activities*” (558/2009, 2 §). After the legislative change in 2004, the definitions and goals of societal impact and interaction have been a topic of a heated discussion (Niiniluoto, 2015; Pinheiro et al., 2015b; Mustajoki, 2017). Due to the changing academic field, also academic work and profession are changing around the world. According to Withchurch (2012) a third space has emerged in between of academic profession and administration, where support of academic skills, technology of education and management of research among others. In Finland one of the implications of the changing higher education and academic work are the strikes of university personnel. The first strike warning since 2010, during the first collective bargaining after the law reform, was made in February 2018. It resulted the first-ever university strikes taking place 28.2.2018 due to the prolonged negotiations concerning wages and terms and conditions of employment. (JHL, 2018.) To conclude, the field of higher education contains many areas of tension both globally and nationally.

One of the most significant academic and societal discussions of today is the one regarding sustainable development. *Sustainability* is in this thesis is seen according to Elkington’s (1994) triple bottom line of *ecological, social* and *economic* dimensions and as action, which meets the needs of the present generations without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). At the times of a universal scholarly consensus of the anthropogenic planetary crisis (Rockström et al., 2009), producing knowledge in order to enhance sustainable development is considered societally extremely relevant. Thus the dimension of sustainability can be seen as inbuilt in the core of university as an institution. Since knowledge is crucial to the paradigm shift towards more sustainable ways of living, research is today more important than ever (Burbules and Torres, 2000). To conclude, university institution is tensioned

globally. The future of universities is important especially regarding sustainable development and thus studying the tensions in the university system is relevant.

## **1.2. Research Objectives and Relevance**

The objective of this thesis is to study the tensioned field of Finnish higher education from the perspective of sustainable development. Hahn et al. (2015) have suggested a framework for studying and managing the sustainable development aspirations of corporations. This framework stresses the usual practice in management studies of sustainable development, where sustainability is studied only in the cases of win-win situations. According to Hahn et al. (2015) regarding solely win-win solutions leaves managers with limited analytical perspective, which does not take into account all possible solutions and strives primarily to the goal of profit maximization before anything else. Recognizing the tensions, contradictions and conflicting aspects managers can distinguish more and possibly more effective solutions towards sustainable practices (Hahn et al., 2010).

Since universities are defined as quasi-business organizations (Marginson, 2016), independent actors in the global competition (Mok and Welch, 2003; Krejsler, 2006), I justify the application of this framework in the context of universities. Sustainability tensions are an important problem for a university as it is for a corporation. I also argue that, since universities produce new knowledge and are most often publicly funded, it is important to aim for transparency considering the underlying tensions and agendas driving this knowledge production process. This study focuses on social and economic sustainability, since these dimensions are the most actively discussed aspects in the context of the changing university institution, and recognizes the ecological dimension as the driving force of the sustainability discussion.

In order to reach a holistic perspective on sustainability tensions of the Finnish university system, and take into account the current dynamic societal and scholarly discussion on both topics (sustainability tensions and the university institution), this study observes the sustainability tensions of the Finnish university system from a systemic perspective. The more comprehensive understanding of the topic is tried to be attained by studying the macro perspective of university system and its' tensions in Finland.

The research question of my thesis is:

*RQ: What kind of social and economic sustainability tensions exist in the Finnish university system?*

I have formed four sub-questions in order to find answer:

Q1: What are the social and economic sustainability tensions related to the Finnish university system according to the scholarly discussion?

Q2: How are the social and economic sustainability tensions of the Finnish university system perceived by the two university managements?

Q3: How are the tensions perceived by the senior officials in the Ministry of Education and Culture?

Q4: How do the perceptions of the sustainability tensions of the Finnish university system differ between the managements of two universities and senior officials in the Ministry of Education and Culture and the tensions of the scholarly discussion?

In order to approach the topic of the university system from a novel angle and apply the integrative framework on the university context, I decided to focus on the management level of the system. The Universities Act has professionalized university management by e.g. turning the role of the rector to resemble more that of a CEO (Pinheiro et al., 2014a) and although universities have more budgetary freedom the Ministry of Education has remained on the steering position. Thus, one can contemplate that the management of the university system is a suitable place to start studying the phenomenon. This is why I study the sustainability tensions focusing on the management level of three organizations: two Finnish universities and in Ministry of Education and Culture. I will focus on two Finnish universities with different commitments and strategies in sustainability as well as differing locations, positions and missions in the Finnish university system in order to reach a holistic view of the university system.

From an academic perspective, my goal is to explore the topic of sustainability tensions in the university system and contribute to the existing knowledge. Tensions of the Finnish university system is an actively discussed topic in the scholarly discussion (e.g. Tirronen, 2015; Pinheiro

et al., 2014a; Lyytinen et al., 2015), but the sustainability perspective has not been addressed to a great extent. There has been several studies concerning sustainability aspects in the university context focused how the curricula can provide information on sustainability issues, how the university as an organization can reach a level of a minimum ecological footprint (e.g. Ralph and Stubbs, 2014; Amaral et al., 2015). Holistic sustainability perspective has gained only little attention in the context of university so far, or at least it has not been named as sustainability studies, but rather studies focusing on human resources, finance or entrepreneurship in the university context. Also, no similar comparing of university managements' and ministry perspectives has been made to my knowledge.

My non-academic objective is to provide more knowledge and holistic understanding of the state of the Finnish university system to the Finnish discussion of science and higher education politics. Also I aim to make an effort in order to root sustainability perspective as a self-evident point of view, when regarding dominant global systems.

From a personal point of view, I wanted to grow my understanding of science politics, sustainable development in higher education and the change of science and university sector. I have worked closely with the topics of this thesis majoring in Creative Sustainability Master's Programme and working at a science communications agency. Since I am observing the phenomena as a student inside the university and as a professional working close to research activities, the danger of making biased decisions and judgments exists. I have acknowledged this in my research design.

### **1.3 Definitions**

The most central concepts of this thesis are *sustainability tensions, economic and social sustainability*, which are explained further in this section.

The concept of sustainability tensions defined by Hahn et al. (2015) is an emerging theory combining literature on strategic contradictions, tensions and paradoxes in the field of management studies. Sustainability tension in this thesis refers to a situation, where individually existing elements, e.g. financial goals and social objectives, seem to be inconsistent or incompatible, when taken together. According to Hahn et al. (2015) tensions

are very common in the case of sustainability endeavors of organizations, since the three dimensions are contradictive per se.

The sustainability focus of this thesis is social and economic sustainability, since the topics of the scholarly discussion are the most related to those. In this thesis I regard the third of the triad, the ecological dimension of sustainability, as the reason why the perspective and discussion of sustainability has emerged in the first place. The ecological dimension is seen as the driving force of the broad societal change our planet is undergoing, which has been initiated by the raise of global awareness of the resource scarcity and the planetary crisis (Rockström et al., 2009). In a way, the ecological dimension determines the direction of the current and forthcoming scholarly discussion independent of the field of study. Ecological perspective is embedded in the perspective of this thesis and acknowledged as the dominant driver of sustainable development and is not discussed separately in this thesis.

To specify, social sustainability is in this thesis, is studied according to the definition of Anand and Sen (1996; Sen 2000), where communities are equitable, promoting diversity, provide connectivity on the formal, informal and institutional levels, democratic and open-governance systems with culture of individuals striving for maturity and personal growth. A socially sustainable community provides perquisites for good quality of life and this way enables the future generations to be able to attain the level of socially fulfilling life.

Like stated previously, economic sustainability is seen as maintaining the economic systems in a state, which enables our generation to live on the planet maintaining and improving the resources for future generations to live equally well or better (Repetto 1985, p. 10).

#### **1.4 Structure of the thesis**

I will start this thesis with a literature review identifying and framing the particular conversations in the scholarly discussion of changing higher education, universities and especially Finnish universities. I also review the scholarly discussion of tensions in sustainability strategies and link this discussion to the sustainability of higher education. After the literature review I will clarify the research design and strategy justifying the decisions I have made. I will continue with describing data selection and collection phase. After this I will move on to findings and discussion of the data comparing the sustainability tensions of

the scholarly discussion and of the two universities and Ministry of Education and Culture. I will also apply the findings on the integrative framework and thus form a systemic overview of the sustainability tensions in the Finnish university system. The study ends with conclusions, recognizing limitations of the study, reflection, propositions for future research and practical implications.

## **2. Literature review**

In this chapter I will review the theoretical concepts and frameworks used in the thesis reviewing scholarly discussions from three different themes. First, I will introduce the discussions of the global competition and the higher education reform affecting on universities (e.g. Altbach, 2004, Krejsler 2006, Wedlin 2008, Styhre and Lind 2010, Aula, 2015). Then I will shift the context to Finnish higher education focusing on the educational reform starting from the 1980's and especially on the Universities Act and the scholarly discussion evolved around it (Aarrevaara, 2009; Heinonen and Raevaara, 2012; Pinheiro et al., 2014a). Finally I will introduce the emerging integrative framework by Hahn et al. (2010, 2014), which is the base of the positioning of this thesis. These discussions structure my research starting from the macro perspective of sustainability in higher education and zooming into the context of Finnish university system.

In the end I will elaborate on how the literature is used in the research and provide the reader my theoretical framework and an initial answer to the first sub-question: "What are the social and economic sustainability tensions related to the Finnish university system according to the scholarly discussion?"

### **2.1 University in Change – The mixed and dynamic pressures towards the university institution**

After the Second World War global markets started to develop incrementally forming the complex, interlinked and volatile economic system of today. After the 1970's, the patterns of global economic restructuring started to emerge and went hand in hand in many countries with implementation of the neoliberal policies (Burbules and Torres, 2000). Globalization, increasing costs of public services and the evolution of the knowledge-based economy caused changes in the character and functions of higher education in many countries around the world (Burbules and Torres, 2000; Mok and Welch, 2003; Deem et al., 2008). Since then higher education and the ways of knowledge production have been in a significant change inside and outside the university institution (Gibbons et al., 1994; Ravetz, 2004). This section describes the dominant scholarly discussions of the topic: the effects of global competition on universities, the global higher education reform and the change of the knowledge-production.

### **2.1.1. Effects of global competition on universities**

Global competition is a fundamental driving force, also in the changing higher education sector. Today universities are evermore expected to be better integrated with wider society more closer to business and industry sectors producing more and more efficient and innovative solutions to the public and societal needs (Wedlin, 2006; Deem et al., 2008; Aula, 2015). At the same time of the increasing competition, universities are being turned into organizations with greater managerial and financial autonomy from the state (Krejsler, 2006). Making the research results available and applicable outside universities, and to enable the commoditization of scientific discoveries is according to Wedlin (2008) expected of universities independent of the size of the public sector support.

Universities are increasingly thought of as competitive actors with a need to position themselves strategically in a competitive academic field (Wedlin, 2008). In the modern times organizational boundaries are blurring not only in the academic and governmental but also industrial organizations (Aula, 2015). Like Stevens et al. (2008) state: “universities are working in the intersectional domains”. According to Aula (2015, pp. 21–22) “universities are of interest to many stakeholders who all may have different ideas of what universities are and what they should be”.

Olsen (2007, p. 3) argues that the university institution is involved in dynamics of change, which has a potential for transforming its’ whole institutional identity. University’s purpose, work processes, organization, system of governance and financial basis, as well as its’ role in the political system, in the economy and society at large are at stake (ibid.). According to Krejsler (2006, p. 210) the meaning of university and, subsequently, academics’ working conditions are rapidly changing as knowledge economy and globalisation discourses continue to deepen across the Western world (ibid.).

#### ***Marketization and academic capitalization***

Mok and Welch (2003, 10) state that the two major strategies: ‘privatization’ and ‘marketization’, are adopted by governments in different countries in response to resource scarcity public sectors are facing globally, with the intention of lessening the financial burden of the state and improving the performance of the public sector (Mok and Welch 2003).



Education system, being a major part of the public services, similar to other state organizations, is facing the tidal wave of privatization and marketization. According to Dale (1997, 274) higher education system cannot avoid addressing the three central aspects states in the capitalist societies now face: (i) supporting the capital accumulation process, (ii) guaranteeing a context for its continued expansion and (iii) legitimating the capitalist mode of accumulation, including the state's own part in it, especially in education. (Mok & Welch, 2003, 11.) These questions are decidedly outlines of the marketization process discussion.

Slaughter and Leslie (1997, 8) call the institutional and professional market or market-like efforts to secure external moneys in the higher education sector, as 'academic capitalism'. Mok and Welch (2003) have developed this concept to 'academic capitalization'. They wish to highlight namely that the processes of changes and conditions of how the education sector has been affected by the notions and practices of managerialism and market orientated approach, are occurring under specific historically concrete conditions rather than static situations.

Wedlin (2008, pp. 143–44) describes the process of marketization as a gradual, far-reaching process running through many societal spheres, including the university sector, and involving a widespread and deep transformation of society with economic, social and political dimensions. According to Wedlin marketization entails fundamental shifts in both ideologies and practices and is not an automatic and autonomous process, but one that requires an active involvement of universities, as well as researchers themselves, an active process to construct markets and market actors (2008, 148). Wedlin (2008, 144) has pointed out general features of the marketization process as:

- The social rationalization of university aims and missions,
- Changes in regulations and assessment processes and methods of universities and of academic work
- The increasing commercialization of universities and fields of sciences

Wedlin (2008) describes the process of marketization with two trajectories. The first is the intensified university-market relations, where the market is seen as a distinct entity and counterpart in universities' wider social context. Wedlin (ibid.) describes universities changing their modus operandi in order to become more closely engaged with the business

and industry sectors of society. Research is being organized and conducted differently; for instance through contract research or joint research ventures with industry. Research is also increasingly assessed and rewarded according to its market value' e.g. through the number of patents and spin-offs generated, making issues of IPRs increasingly important. (Wedlin, 2008, pp.146–148.)

The second trajectory sees universities as strategic actors and entities constituting a particular form of the university market. It regards and describes universities as competitive entities, competing with each other as well as with other 'knowledge organizations' for resources, reputation, students and status (Wedlin, 2008, 148.) Measurability, accountability, transparency and openness are growing pressures for universities globally. This trajectory illustrates universities competition with each other for students, faculty, funding, other resources as well as for status and reputation in the marketized setting of global competition (Harman & Harman, 2008; Wedlin, 2008.)

### ***Entrepreneurial university***

One perspective to approach the relationship between universities and wider society, particularly industry, in literature is the concept of 'entrepreneurial university' first established by Slaughter and Leslie (1997). This concept refers to the process of implementing market-oriented approaches and corporate models as governance in higher education. By corporate model Slaughter and Leslie refer to the model in which universities are turned into corporations or entrepreneurial universities under which organizational structuring and functioning is altered in light of the belief that education should serve economic purposes (Mok & Welch, 2003 12–15).

According to Etzkowitz (1998, p. 833) "the entrepreneurial university integrates economic development into the university as an academic function along with teaching and research". Etzkowitz calls this as the 'capitalisation of knowledge', which is in the heart of the new mission of universities. This mission links together universities and the users of knowledge more firmly and establishes the university as an economic actor in its own right (ibid). Eddie Holt proposes this (Wedlin; Chapter 12) claiming that "making profit has become near an obsession in universities and has supplanted, or at least supplemented, the traditional aims of 'truth-seeking' in the academic world" (Wedlin, 2008, 146.)

Entrepreneurship has also been studied as a function inside university and the concept of entrepreneurial university (Slaughter & Leslie, 1997) is often mixed with this point of view. Rothaermel et al. (2007) have compiled a literature review of university entrepreneurship regarding entrepreneurship as entrepreneurial activities in universities. According to Rothaermel et al. (2007) four major research streams emerging in the area of university entrepreneurship are: (i) entrepreneurial research university, (ii) productivity of technology transfer offices, (iii) new venture creation, and (iv) environmental context including networks of innovation. The literature on university entrepreneurship is rapidly expanding, in both the United States and Europe and has grown substantially from 1981–2005 articles. Examples of entrepreneurial activities include patenting and licensing, creating incubators, science parks, and university spin-offs, and investing equity in start-ups (Rothaermel et al. 2007; Aula, 2015). According Styhre and Lind (2010) in this discussion university institution have become reconceptualized as an ‘entrepreneurial hotbed’, where productive and mutually rewarding public-private partnerships are developed.

Clark (1998) sees the entrepreneurial university phenomenon as something that if done right “such purposive transformation” can strengthen universities collegiality, autonomy, and educational achievements. According to Clark entrepreneurial university brings in new forms of knowledge, new types of students, new labor force connections and new problem-solving skills for government and the economy (1998). Clark points out that many states seek to implement entrepreneurial universities in pursuit of economic rationality by means of efficiency and accountability under centralized management. He warns that such strategies are often modeled on simplistic conceptions of what business firms are like and thus can turn out as unsuccessful (2001, p. 21; Krejsler 2006, 215.)

Styhre and Lind (2010, 107) divide the scholarly discussion of entrepreneurial university to two parties. There are academics seeing that university institution needs to be capable of bridging the gap between theoretical and practical interests (Starkey and Madan, 2002, pp. 3–26). And the other academics, who reconceptualize the entire university as an entrepreneurial hotbed, mentioned earlier, where new and productive relationships between researchers and industry may be forged (Bartunek, 2007; Bercovitz and Feldman, 2007; Etzkowitz, 2003, 1998; Lam, 2007; Murray, 2004, 2002; Nerkar and Scott, 2007; Vestergaard, 2007).

### ***Global merger trend in higher education***

The global merger trend of universities is an example of the global competition, which compels the actors of the academic field to rationalize their operations (Altbach, 2004; Aula, 2015). The underlying reasons of the world-class university trend, the paradox of the notion is however, as Altbach (2004 p. 4) notes, that “everyone wants a world-class university. No country feels it can do without one. The problem is that no one knows what a world-class university is, and no one has figured out how to get one.” Altbach considers that we are living in the age of academic hype, with universities of different kinds and in diverse countries claiming the exalted status of world class, generally with little justification (ibid.).

The clear trend is towards the development of larger and stronger producers of educational services and research. In a number of countries, full-scale mergers are being seriously considered, including mergers of two or more strong institutions (‘strong/strong’) (Deem, 2008). According to Harman and Harman, while between the 1960’s and the late 1980’s merger activity, especially in the public sector, tended to be mainly government-initiated, directed towards dealing with problem non-university institutions, since the early 1990’s, there has been a distinct trend towards institutional-initiated mergers of strong institutions including many universities with the explicit strategic aim of enhancing competitive advantage. (Harman and Harman, 2008.) Altbach argues (2004; Deem et al. 2008) that in establishing a world-class institution, the other national universities are at stake. Jobbins (2005) mentions the department closings in different disciplines around the UK as a result of the low Research Assessment Exercises, possibly resulting from the diminishing funding and attention paid to the universities outside the world-class plans.

#### **2.1.2 Effects of global higher education reform trend on universities**

This sub-section presents the most relevant discussions regarding the global higher education reform trend and the intertwined scholarly discussions around it.

### ***Global higher education reform trend in nation states***

The World Bank and the Organization for Economic Cooperation and Development (World Bank, 1994; Organization for Economic Co-Operation and Development, 1995) have been supporting and promoting the use of market and economic principles in the higher education

sector since the 1990s. World Bank reports on higher education have been criticized for advancing an agenda of user-pays fees, increased privatization, a reduced public sector and decentralized administration, in which states increasingly shed responsibility for failures in the system. (Mok and Welch, 2003, 11–12.)

According to Moisiu (2014, p. 22 (2014, p. 22; Heinze and Knill, 2008; Neave, 1985) there are two overarching political processes ongoing in the European higher education: the modernization of the higher education and the intergovernmental Bologna process, which has gained most of the attention of these two. The Bologna reforms aim at harmonizing the three different levels of study, for Bachelors, Master and Doctoral awards, across all member countries, and according to Deem et al. (2008: Barblan, 2002; Nunn, 2002; Kwiek, 2004) is associated with aims of raising standards, sharing common systems of quality assurance, encouraging inter-country cooperation and facilitating student mobility.

The Lisbon strategy, the other significant reformation for the higher education field, was set out by the European Council (EC) in Lisbon, March 2000, and mainly concerns the quality of research undertaken in European universities. The objective of Lisbon strategy is to make Europe and the European Union the world's 'most dynamic and competitive economy' and in the field of higher education. It has specifically focused on the knowledge and learning economy and recognizes that knowledge is the EU's most valuable asset in the increasing global competition. The second aim of the Lisbon strategy is innovation, which also connects to EU's research and development activities. According to the European Council of Lisbon (2000), the EU was to become the most competitive and dynamic knowledge-based economy in the world by 2010. (Deem, 2008, p. 86.) University reform came onto the EC's agenda in 2006 (Deem et al., 2008 p. 86; European Commission, 2006; European Commission Representation in UK, 2006) and it is seen by European University Association that the previous decade was a turning point for European higher education institutions (Moisiu, 2014, p. 21). According to Wedlin (2008) Lisbon agenda validates the nature of competitive advantage higher education is perceived by the EC, since in the Lisbon Agenda, and in the Barcelona goals, the spending on research is 3% of GDP, and the commitment to the university as the main procurers of education and producers of research is clearly stated.

Wedlin (2008, 143) argues that the existing objective of the nation states to become an authentic 'knowledge society' has led to a paradoxical situation, where the university and its'

academics are looked on with a certain degree of distrust and at the same time, their achievements and importance are repeatedly stressed and highlighted. According to Wedlin (2008) increasing attention and a renewed focus on academic activity has followed together with renewed calls for change and reform. Krejsler (2006, 210) argues that higher education and research agendas are increasingly staged in the discursive universe of knowledge economy language deriving from strategies and harmonisation within EU and the integration of universities into national knowledge economy strategies inspired from WTO, OECD and IEA.

### ***The new social contract between higher education and society***

The rise of network economy (Castells, 2011; Pinheiro et al., 2015b), the tightened competition of knowledge, higher education reforms (Etzkowitz and Leydesdorff, 2000; Mok and Welch, 2003; Krejsler, 2006; Deem et al., 2008; Moisisio, 2014) and thus stricter monitoring of the, most often publicly funded, higher education system has epitomized in new demands towards HEIs. Maassen (2014, p. 33) talks about the global need to redefine the social contract between higher education and society. Maassen (ibid.; Gornitzka et al., 2007) describes this social contract as a “fairly long-term cultural commitment to and from higher education, as an institution with its own foundational rules of appropriate practices, causal and normative beliefs, and resources, yet validated by the political and social system in which higher education is embedded”.

The need for redefining the relations between society and higher education has been discussed since the beginning of the millennium. The 1998 declaration on Academic Freedom, University Autonomy and Social Responsibility of the International Association of Universities (IAU) stated the need for a new Social Contract and defined mutual rights, responsibilities and obligations between University and Society (IAU, 1998; Maassen, 2014, pp. 34–35) and also the joint UNESCO and the International Council for Science’s World Conference on Science (1999) called for a new social contract to update terms for society’s and Science’s reciprocal relationship (ibid.).

Pinheiro et al. (2015, p. 229) name the growing pressures towards HEIs from increasing stakeholder groups as a one of the key challenges of HE (Pinheiro et al., 2014b; Pinheiro, 2015). Jongbloed et al. (2008) compare this responsibility of HEIs is to corporate social

responsibility for its' liabilities towards various stakeholder groups and recommend according approach for managing with it. HEIs are in the position to legitimize their existence, and the use of public resources to these stakeholder groups. According to Pinheiro et al. (2015, p. 229) the traditional pact between HE and society has been replaced by contractual relationship between state and HEIs, which is defined by accountability and performance monitoring. We have come to point where there is a contradiction between traditional 'humboldtian' university and entrepreneurial university (Hautamäki & Stähle, 2012; Niiniluoto, 2015, p. 16).

### ***The Triple-, Quadruple and Quintuple Helixes***

Educational system is seen as global competitive advantage in the knowledge-based, globalized economy by the competing nation states. The concept of "Triple-Helix" by Etzkowitz and Leydesdorff (2000, pp. 111–112) is used to describe university-industry-government relations. Triple-Helix I. (Figure 1.) illustrates the nation state encompassing academia and industry and directing the relations between them and Triple-Helix II. portrays a model of separate institutional domains with strong borders dividing them and highly circumscribed relations. The Triple-Helix III., the model most countries are trying to attain, generates a knowledge infrastructure in terms of overlapping institutional spheres, with each taking the role of the other and with hybrid organizations emerging at the interfaces (ibid.)

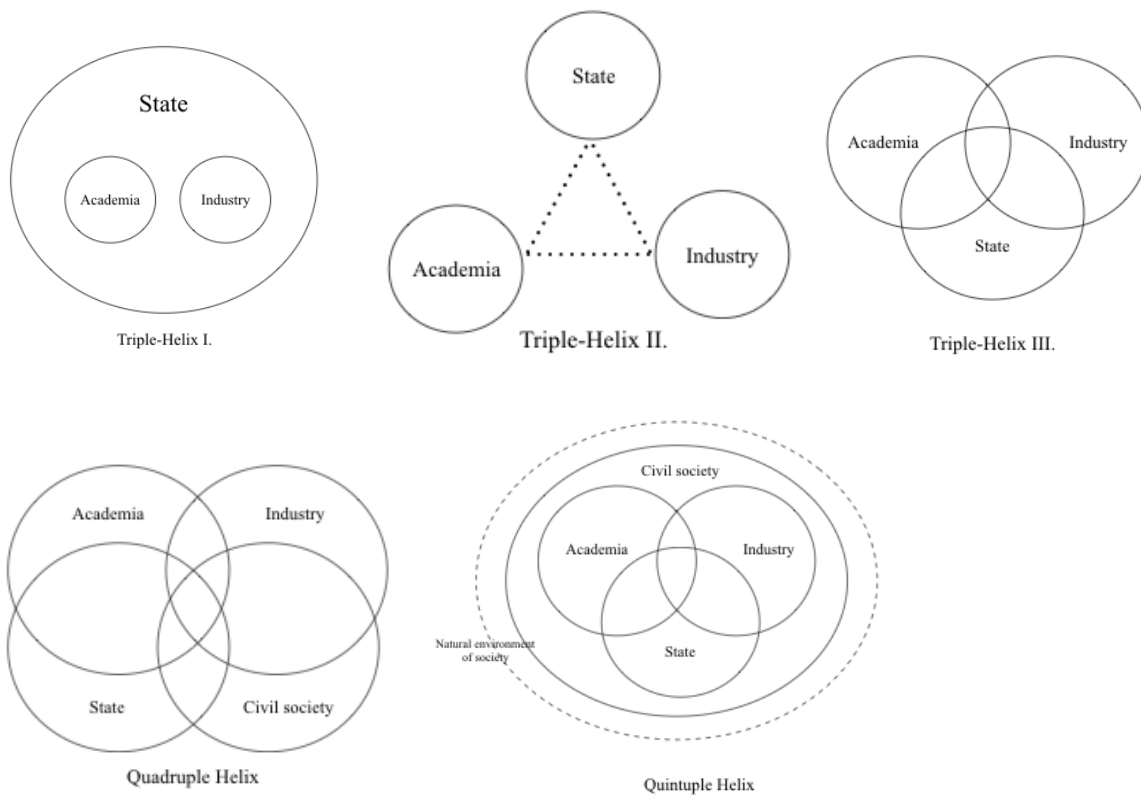


Figure 1 Triple-Helix I., II. & III (Etzkowitz and Leydesdorff, 2000), Quadruple Helix and Quintuple Helix (E. Carayannis and Campbell, 2012)

Carayannis and Campbell (2012) developed the concept of helixes further. The quadruple helix's fourth helix illustrates the civil society and media-based and culture-based public highlighting the importance of the public integration and participation in the innovation system (ibid., 2012, pp. 13–15). The quintuple helix contextualizes the triple and quadruple helixes, the fifth helix illustrates the natural environment, where societies exist and this way takes along the sustainability perspective into perceiving innovation systems (Carayannis and Campbell, 2012, pp. 17–18).

### ***The discussion of societal impact and interaction***

The stakeholder pressures described by Pinheiro et al. (2015, p. 229) and Jongbloed et al. (2008) have commenced the heated and multitoned discussion of societal impact and interaction. The discussion of the societal interaction and societal impact is problematic in a sense that there is no consensus over the definitions (Heikkilä and Jokinen, 2015, p. 32). Many academics highlight that the topic of impact of research and universities is not a new thing, per contra (Niiniluoto, 2015 pp. 15–16; Mustajoki, 2017, p. 4). One can ask, why does



the impact discussion enjoy such a momentum and still today suffer from a blurry definition (Mustajoki, 2017, p. 4). According to Mustajoki (2017) the discussion on the societal impact is heated in these days, because the relevance of ever-specializing fields of sciences are needed to justify, because more specific info of rankings is need in the global competition between the different fields of sciences and because the political and public agents need quantified measures of the performance of HEIs to justify the use of public resources.

Today, scholars reckon that the benefits of basic research offers for the society, are not fully understood or at least under scrutiny (Smith, 1997; Salter and Martin, 2001; Petit, 2004; Bornmann and Marx, 2014). Today's discussion of the taxonomy of basic and applied research can also be regarded through the shift of knowledge making by Gibbons et al. (1994) from Mode 1, basic research highlighting scientific quality and academic traditions, to Mode 2 type of research, which highlights societal impact, is recoverable and applicable to society (Muhonen and Puuska, 2014, pp. 15–16). After research dug deeper into specialized question regarding different fields of sciences', it created the need of dividing research based on its' motives, whether the objective was purely knowledge or the needs of the society. After a scholarly discussion long enough, this division has started to question or at least recognize as volatile, because of the fields of research where applying knowledge is near to basic research. (Mustajoki, 2017, p. 4)

There is a strong opinion in the scholarly discussions that high-quality scientific research and education are impactful per se, and thus societal impact is inbuilt in universities duties (Niiniluoto, 2015; Mustajoki, 2017). Still the need to justify its existence and argue in order to maintain its' resources in the times of societal hardships, is new for the academic community says Mustajoki (2017, p. 3). In this perspective, one bumps into the question of the criteria of high-quality research, which is an active scholarly discussion of its' own (Muhonen and Puuska, 2014; Vuolanto, 2013; Gulbrandsen, 2000; Kaukonen, 1993).

When academic community assesses the impact of research, scientific and societal impacts are differentiated from each other. Strong stereotypes of the scientific superiority of basic research are rooted in the academic community, although research papers defined as those from the fields of applied research, are in many cases very successful if one uses the traditional scientific evaluation metrics such as the amount of citations and the rank of the publication (Muhonen and Puuska, 2014, pp. 21–22).

Societal interaction and impact are many times used as synonyms, although the concepts are separate. Societal impact refers to the direct effects, products, events or changes that have been born from the university (Lyytinen et al., 2015; Kuitunen & Hyytinen, 2004; Ritsilä, 2013). According to Kuitunen & Hyytinen (2004; Lyytinen et al., 2015) impact can be divided into predictable and unpredictable, beneficial and harmful ones inside and outside the university. According to Kuitunen & Hyytinen (2004, p. 22) societal impact can be defined as simply as a change, doing the ‘right things’ and reaching the set goals (Lyytinen et al., 2015). In the case of HEIs goals can refer to the outputs of universities, such as degrees and publications, and their effects corresponding to the agreed goals (Hölttä, 1996, p. 54).

According to Nieminen (2004; Lyytinen et al., 2015) the third mission, societal interaction, can be defined as a perspective, where HEIs education and research missions are regarded through their economic, social and cultural consequences, relevance and applicability, and it should not be regarded as a mission of its own, but rather as a part of education and research missions and as a guiding principle steering economic, social and cultural relevance and applicability. This supports the dominant view of the Finnish academic community, where the third mission of societal interaction is completed, when the HEI carries out well its very basic tasks, research and education (Niiniluoto, 2015, p. 17). Lyytinen et al. (2015 p. 62) have instead defined societal interaction in four dimensions focusing on outside the academic community. Two of the dimensions are linked to HEI’s mission of education and research and two highlight societal interaction as a separate task although linking to research or education:

1. Transfer, exchange and commercialization of knowledge, know-how and technology
2. Environmental relationships (i.e. operational environment) and impact of education and teaching
3. Societal participation
4. Commercial use of the premises/facilities of the university.

According to Molas-Gallart et al. (2002; Lyytinen et al., 2015, p. 56) the third mission is all the activities related to the production, use and application or exploitation of universities knowledge and other abilities, outside the academic environment. Molas-Gallart defines the activities as research, education and communication of the results of the inputs. Since university and scientific community continues to open up to new stakeholders, and the fourth dimension of citizen activity and culture has been acknowledged (quadruple-helix), scholars

have recognized the increasing difficulty to separate what is inside and what is outside the academic community (Niiniluoto, 2015; Mönkkönen & Neuvonen, 2018).

In addition, the interaction between academic and lay communities, development of citizen science and co-creative research methods is understood to be more diverse than one-way knowledge transfer or communication of the research results. The societal interaction process is seen today, besides as the traditional linear knowledge exchange and transfer, as complex, reciprocal interaction processes and exchange of know-how (Gibbons et al., 1994; Ravetz, 2004; Nieminen, 2004; Molas-Gallart and Castro-Martínez, 2007; Geuna and Muscio, 2009; Jongbloed and Zomer, 2012; Lyytinen et al., 2015). Constructionist education theories represent this same perspective, describing students as active participators of structuring and formulating knowledge and lecture halls as dynamic, small researcher communities of collective intelligence (Niiniluoto, 2015, p. 17). Societal interaction can also be perceived from the ecosystem perspective, where university, a community of knowledge, forms ecosystems with other HEIs, research institutes, cities, public organizations, businesses, NGOs and citizens based on different areas of expertise (Mönkkönen and Neuvonen, 2018, pp. 19–20). These ecosystems are dynamic and the deriving impact is a result of continuous interaction and dialogue of its' members. Mönkkönen & Neuvonen (2018, p. 19) mention challenges, hackathons, science festivals and client case research projects by students as examples of encounters, which fuel interaction in ecosystems.

Technological development has made the scientific community genuinely global and enabled access to research results for a broader network and taken the possibility to link research data and other information to a next level (Mönkkönen and Neuvonen, 2018; Ravetz, 2004). Mönkkönen and Neuvonen argue that technological revolution, increasing accessibility to research results and development of are a start to a new kind of academic culture, where everyone can utilize research results and participate in conducting research.

### **2.1.3 Change of academia and knowledge production**

A fundamental discussion related to university institution is the one concerning the change of academia and knowledge production. Marginson (2008) sees that academia is at the moment in the form of instrumentalism. Universities produce information and resources, which are valuable and useful to others: industries, companies and society, and less representative of the

virtues defined by the academic community itself. The paradox of steering with knowledge and knowledge economy could be seen here, when the body responsible for the high-quality knowledge production is not allowed, or cannot itself allow itself, to make decisions of its' best ways to operate, not mentioning making suggestions of the best ways for our society to operate.

Olsen (2007, p. 2) has contemplated the dilemmas facing the university, and the future of the ideal of the university as a fiduciary arrangement dedicated to the academic excellence and freedom. Olsen (ibid.) suggests that an improved comprehension of university dynamics may depend on a better understanding of how institutional success, confusion and crisis can be related shedding light to four dilemmas universities face.

### *Post-normal and post-academic science*

Gibbons et al. (1994) are one of the earliest, and most dominant of the current, commentators examining university-industry collaboration under the formulation of Mode 1 and 2. The fundamental questions Gibbons et al. ask are, what knowledge is produced and how it is produced. The discussion of Gibbons et al. is based on the arguments of the changing role of knowledge in society and that new kind of knowledge creation needed alongside the more traditional disciplinary framework (Aula, 2015; Harvey et al., 2002). Gibbons et al. predict a change in universities knowledge creation to which they refer with the shift from Mode 1 to Mode 2.

Mode 1 refers to what we have understood as a traditional scientific approach to the knowledge creation system based on setting a clear boundary between the public and private sectors. Universities' role here is to provide discipline-based education and skills to students, and to conduct research they believe is relevant within a particular discipline in the long run. The research is curiosity-driven (Merton, 1973) and done with the intention to be applied by other academics controlling the quality of knowledge on their behalf.

The Mode 2 research in turn, refers to the blurring lines between different sectors and fields, especially public and private sector. Knowledge creation has shifted towards interdisciplinary research in the context of application, with emphasis on problem-solving. When Mode 1 knowledge-creation happens among the academics of a certain discipline, in Mode 2

knowledge derives from collective processes of networking, negotiation, and interpersonal communication between academics and other communities in the society, in order to solve complex problems of society. (Gibbons et al., 1994; Harvey et al., 2002; Aula, 2015.) Aula (2015) argues that although the 'mode discussion' and the particular momentum of its emergence remains challenged, the change in knowledge creation has triggered the discussion of university research practices and underlying values and ideals of the relation of basic and applied research. Carayannis and Campbell (2012, p. 51) have continued the Mode discussion by developing "Mode 3" to illustrate the importance of the ability to combine and integrate different knowledge and innovation modes in order to form a thriving knowledge societies and economies.

Ravetz (1999; 2004) has started the discussion of post-normal science highlighting the role of extended peer community. Ravetz (1999) defines post-normal science as the point where scientific research is, when brought to bear in policy decisions when there are situations, where facts are uncertain, values in dispute, stakes high, and decisions urgent. Ravetz (2004) emphasizes that the communities and actors, who the possible problem or circumstances under the lens, possesses information, which has been ignored by the academic community for a long time. The figure 2 illustrates the shift in methodology in post-normal science. When the decision stakes and uncertainties systems uncertainties are low, we have 'applied science' the equivalent, in the policy context, of Kuhn's (1962) 'normal science'. An example of high decision stakes and high system uncertainties could be in the case of a new pandemic disease, when too slow and false actions, cost lives, the information of the disease being very limited and uncertain. (Ravetz, 2004, p. 354.) Ravetz states that under these conditions a narrowly trained expertise can be irrelevant or even counterproductive and 'an extended peer community' must be involved. The new community can have 'extended facts' beyond the peer-reviewed published literature, which may include 'housewives' epidemiology', local knowledges, and investigative journalism.

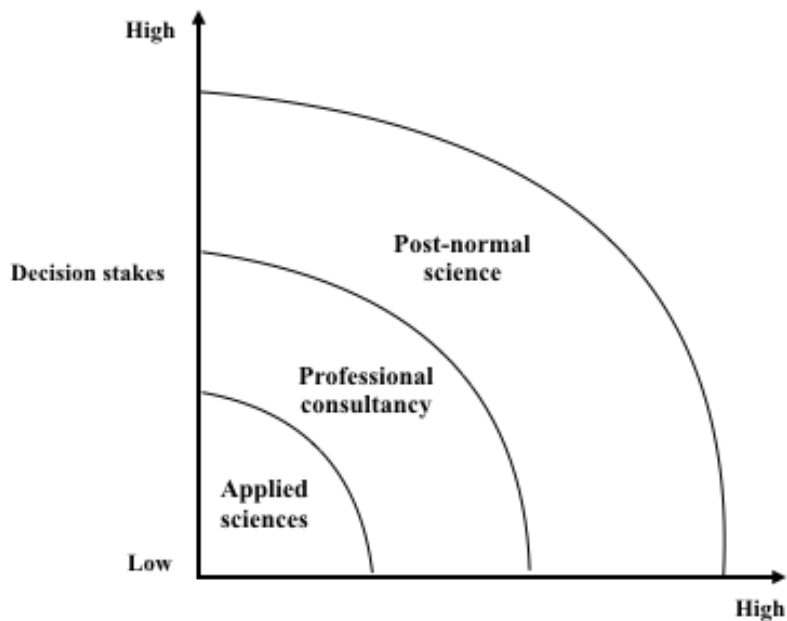


Figure 2 Post-normal science (Ravetz, 2004)

Also the commentators of the entrepreneurial university discussion (Styhre and Lind, 2010, 107) refer to this and when arguing that university needs to be capable of bridging the gap between theoretical and practical interests (Starkey and Madan, 2002) and referring to (Gibbons et al. 1994) “Mode 2 research” (Harvey et al., 2002 and MacLean et al., 2002.

Ziman (1996, p. 70) has started the discussion of ‘post-academic science’ and states that Mode 2 type of research of Gibbons et al. (1994) is a credible scenario for future science. According to Ziman although making generalizations in conclusions, the Mode 2 presents decisive break with e.g. the academic tradition in relation to conditions of employment, problem choice, criteria of success and other important features. Ziman (1996, p. 70) suggests that the Mode 2 is not just the new mode of knowledge production but also a formula for a new possible research culture, which also provides a coherent model for post-academic science. This is aligned with Mönkkönen and Neuvonen (2018) comparing societal impact and interaction to a paradigm change.

## **The overruling Anglo-Saxon paradigm and how it affects knowledge production**

The cultural aspect of higher education reformation process is seldom highlighted. The significant restructuring processes of higher education systems in both Europe and Asia had to adopt the Anglo-Saxon higher education paradigm (Deem et al., 2008). According to Deem et al. (2008, p. 93) the academic communities in Europe and the United States have been regarded as more 'advanced' than the Asian counterparts. Deem et al. (2008, 93) argue that the exchanges, coupled with the quest for the world-class universities as predominately defined by the Anglo-Saxon world, have not only created a new 'dependency culture' but also reinforced the American-dominated 'hegemony', especially in relation to league tables, citation indexes and the kind of research that counts as high status.

If considering science as an institution, Agrawal (1995) along many others highlight that the Western culture has hegemony in today's scientific community. Though science as we know it derives from the Aristotelian and Greek basis from the 12<sup>th</sup> Century, it has roots in the Arab-Muslim and Chinese scientific activities, which remained marginalized due to lack of institutionalization within their own cultural contexts (Huff, 2007). Agrawal (1995) along many others has brought up the matter of who produces knowledge and how the knowledge-production is valued in the society, discussing the indigenous knowledge. Agrawal (1995, p. 30) suggests that no distinctions in terms of indigenous and western knowledge is necessary to create but instead talk about multiple domains and types of knowledges, with differing logics and epistemologies. This discussion supports Ziman's definition of post-academic science regarding the future of research activities and science as something, where the value of local knowledge is identified and used.

Fukayama (2005) reminds that without proper contextualization, the adoption of 'global trendy strategies' or 'global reform measures' can be counterproductive in higher education reforms. Asian societies discussed by Deem et al (2008) China, Taiwan, Japan, Singapore and Malaysia, have countered 'internationalization' as 'westernization' and 'modernization' or 'Americanization' since the 19th century (Mok, 2006). Deem et al. (2008, 93) remind that despite the fact that many of the Asian societies were 'de-colonized' after the Second World War, many of them have not actually 'de-colonized', since most of them have been influenced strongly by Anglo-Saxon standards and ideologies. Copying policy practices without proper adaptation and contextualization can be problematic. The result can be a process of re-

colonization, resulting in reproducing learning experiences that do not fit the specific cultural and political environments in the East (Deem et al., 2008, 93).

## **2.2. The Changing Finnish university system**

This section will contain the most dominant scholarly discussions considering the role and societal mission of Finnish universities in the Finnish higher education system. Aarrevaara & Hölttä (2008), Tirronen (2014, 2015) and Pinheiro (2012, 2014a) among others, have discussed and argued about Finnish higher education and science politics. In this section the recent history of Finnish higher education system is revised briefly in order to reach the systemic perspective. Then the most recent milestone in the Finnish science politics, Universities Act, is explicated pinpointing the major changes resulting from the legislative change. Finally the most emergent social and economic tensions in the Finnish higher education system are discussed.

### **2.2.1 Formation of the Finnish higher education policy**

The Finnish university and the academic profession is rooted in the German model and built strongly around research activities (Aarrevaara & Hölttä, 2008, pp. 117–118). The research university was the only model discussed by the political decision makers, when expansion of the Finnish higher education system started in the 1960's (Hölttä, 2000). Higher education system is seen as a crucial part of Finland's national and regional innovation system, and Aarrevaara and Hölttä (2008, p. 118) emphasize that there is a strong link between higher education and economic policies.

The Finnish higher education system is a binary one and has 14 universities and 23 universities of applied sciences (Ministry of Education and Culture, 2018). From 1960's Finnish universities were tied strongly to the state as part of social policy and this way Finnish university policy was born (Lampinen, 2000). Latest after this point university policy has been a field and a target of forceful political battles (Kivinen et al., 1993). According to (Kauko, 2011, p. 55, 246) historians agree that Finnish university policy in the 20th and 21th century can be divided in three essential eras: the time before 1960's, the years 1960's–1980's and the time after 1980. In the years 1960–1980 the Finnish higher education policy was formed (Nevala, 1999, p. 55). The state became an active and perhaps most considerable



agent, and Finnish higher education policy was born. Universities became public national entities and university system was expanded structurally and with expanding student number and the ministry of education became the central managing institution of university policy (Kauko, 2011; Lampinen, 2000; Nevala, 1999; Kallunki, 2015).

The state's power over university policy was at its' strongest with state driven university management in the beginning of 1980's is the era of state driven university management development (Nevala and Rinne, 2012, p. 224). The introduction of performance management (in Finnish 'tulosohjaus'), the top down public administration reform took place in Finland from 1980's and implementation to the university sector started in 1988 (Rekilä, 2006, p. 137).

The shift to performance management had OECD countries as role models and happened at the same time as New Public Management doctrine took place. The KOTA-system of the ministry of education was put into use in 1987. According to Treuthardt (2004, p. 18) the goal was to gain systematic evaluative information of the performance of universities. In other words, central elements to performance management: contract negotiations, new principles of financing, and monitoring system were emerged into university policy in the end of the 1980's (Kallunki, 2015, pp. 17–18).

The concept of quality emerged into the university policy in the 1980's. In the context of the development of higher education institutions qualitative objectives came alongside to the quantitative objectives, especially as in the high level of education and research (Ministry of Education, 1983, p. 55). The reform of the university legislation in 1997 emphasized quality to an increasing extent (Kallunki, 2015, p. 20). The renewed law enacted that high international level has to be maintained in the fields of education and research (Ministry of Education, 645/1997). According to Kallunki (2015, p. 20) university law codified the shift from quantity to quality. The reform obligated universities to assess their own performance (645/1997, 5§; Kallunki). The concept of quality was central basis of the Universities Act in 2009. The goal of the reformation was to create better conditions to operate for universities to help them enhance the quality and impact of the education and research operations (HE, 7/2009).

According to Tirronen (2015, 23), Finnish higher education and science politics are undergoing two significant change processes: the renewal of the dual model universities and universities of applied sciences form and the structural development measures directing universities to profile their functions and focus on certain fields of sciences. Behind both of the processes is the mindset to aim for globally competitive high quality research.

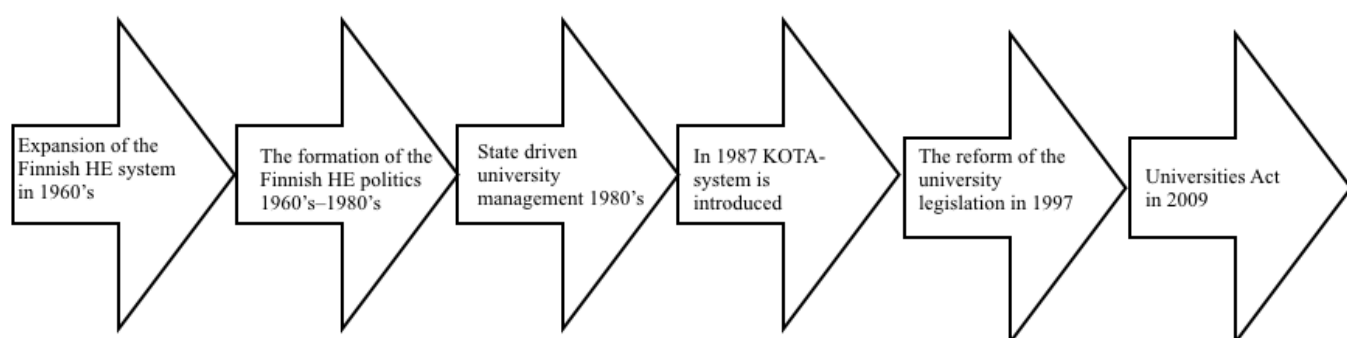


Figure 3 The Formation of the Finnish higher education politics from 1960's to 2009

### 2.2.2 Universities Act and its' effects

In Finland universities have a close relationship with the state, since the Finnish government provides the majority of the basic funding for Finnish universities and steers the national educational policies (Pekkola, 2009). The same process of educational reform, which took place in the continental Europe, took place in Finland starting from the 1980's reform laws until today. Standardized public governance was gradually dismantled since the late 1980's, and perhaps the most significant reform since the 1967 Higher Education Development Act took place in 2009, when Parliament approved the new Universities Act (Tirronen, 2015, p. 22).

Preparations of the law reform commenced in 2006, led to university reform and to Finland's new Universities Act, passing in 2009 (Moisio 2014; cf. Ministry of Education and Culture, 2009). The national discussion on university reform was held concurrently with higher education modernization discourse in the Council of the EU (Moisio, 2014, p.14). After the Lisbon strategy, the significance of EU-level cooperation in education increased in Finland,

and the jointly agreed goals in the education sector structured the cooperation (Moisio 2014, p. 15). According to Moisio (ibid.) The European Commission's role as an initiator was understood to be very important, even more than the decision-making role of the Council of the EU.

Some researchers (e.g. Nieminen, 2004; Kankaanpää, 2013) regard the 2009 universities law reform as the beginning of a new era, some (e.g. Nevala and Rinne, 2012) see the reformation as a continuum and the materialized form of the development started in the 1980's (Kallunki, 2015, p. 11).

The new act, which passed in June 2009, introduced reforms on three major platforms according to Aarrevaara et al., (2009 p. 5):

- Finnish universities became independent legal entities and ceased to be public institutions.
- The ownership and management of university buildings changed and government is to relinquish its 100% ownership providing universities with majority of the ownership rights.
- The new act required that minimum 40 % of the members of university boards were to be external appointees.

The reformation separated universities from the state making them independent legal entities, which detached universities from the state's budgetary legislation and control, creating more freedom and space for economic and administrative autonomy (Mäenpää, 2009). According to Tirronen (2014) the Universities Act enabled more freedom of latitude for universities, independency in the economic decisions, strategic planning of operations and management. At the same time, while economic autonomy increased, responsibility for the operations and its' performance and economicality became central part of university management.

Under the previous act, Finnish rectors were elected by their peers, and chaired the university board. The new practice introduced by the Universities Act is similar to several European systems: the board appoints the rector, who enjoys the confidence of that board where a minimum of 40% has to consist of members outside the university (Ministry of Education and

Culture, 2016, p. 17) aiming to enhance the community relations and influence as well as financial in competence operating as public corporations (Aarrevaara et al., 2009 p. 7).

Aarrevaara et al. (2009 p. 4–5) state that the major changes of the reform package were “to improve universities’ capacity to react to changes in the operational environment; to diversify their funding base; and to compete for international research funding. Other concrete objectives were to increase co-operation with foreign universities and research institutes and to help in allocating resources (Ministry of Education, Finland, 2008d).” The Universities Act was also a deregulatory law and thus continued a long established line of Finnish university policy since the late 1980s (Kallunki, 2015, p. 20–21). Its’ core content was to shift power from state administration to universities by reducing norms, but since the universities remained under the state's unofficial guidance, the power dynamics have not changed decisively in this respect (ibid).

Aarrevaara & Hölttä (2008, 122) see that government’s goal was to make universities more market orientated and linking the higher education system more closely to the national and regional innovation systems. With the increased institutional autonomy, this will most probably be the essential force driving the change of academic work in the future. According to Aarrevaara et al. (2009, 6) the major implications of the reform were meant to be financial, since the status of the separate legal entity enable more flexibility to seek private funds both on- and off-shore. Virtanen (2008, 57; Aarrevaara et al., 2009, 6) has noted the current situation as follows “public funding of universities is weak, much less than in the countries understood to be Finland’s major competitors in the international economy. [...] As the prospects for the increase in public funding are unpromising, more private funding is suggested, as well as more collaboration with international companies and collection of private donations and endowments”.

### ***The assessment of the Universities Act by the Ministry of Education and Culture***

The Ministry of Education and Culture carried out a broad assessment of the effects the law reform of Universities Act had in 2015–2016. In the report, the Ministry summarized the goals of the law reform as such that Finnish universities can develop their operations in the following fields (Ministry of Education and Culture, 2016, p. 15):

- React to the changes in the environment they operate in
- Diversify their funding base
- Compete for international research funding
- Cooperate with foreign universities and research institutes
- Allocate resources to top-level research and strategic focus areas
- Strengthen the quality and effectiveness of its research and teaching activities
- Strengthen its role in the innovation system

The new university legislation sought to influence these aspirations and challenges through economic and administrative autonomy.

The conclusions of the report were aligned with the results scholars (Aarrevaara, Tirronen etc.) had anticipated. According to the report (Ministry of Education and Culture, 2016, p. 76) the new law set a cultural and structural change in motion giving more freedom to the universities to organize their own structures and practices as they see the best. The law reform had increased tensions between management and personnel, setting more requirements for university management and leadership. One of the key challenges in the future was said to be to ensure the university community's stronger experience of involvement (ibid). The report stated that the austerity policies and enacted budget cuts had an effect on the assessment made. Many universities were going through employer-employee negotiations, which can be viewed as examples of the new autonomous status – the possibility to make different human resource orientations and solutions (Ministry of Education and Culture, 2016, p. 77).

The central effects of the law reformation in relation to the set goals were following:

- The university reform had strengthened the economic and administrative autonomy of universities; opportunities had not yet been fully exploited
- Increased autonomy had somewhat increased the economic mobility of universities; however, Ministry of Education and Culture's funding drove the activities of universities very strongly
- The centralization of power/authority had made decision-making more effective; the university community was at the same time diverged of decision-making
- The role of the university college was unclear and unstructured in many universities

- The interaction between universities and the Ministry of Education and Culture was mainly functional; ministry's control was still very detailed
- The prerequisites for profiling have improved; however, the law had not had any significant impact on the formation of stronger and internationally more competitive universities
- The performance of research and education had developed positively; however, development is a long-term trend and thus not a consequence of the Universities Act
- The importance of societal interaction had been strengthened at the level of leadership; the effects were not yet visible in research and teaching (pp. 77–78)

### **2.2.3 Nested tensions in the Finnish university system after the Universities Act reform**

Pinheiro et al. (2014) have highlighted the distinct yet interconnected sets of dilemmas with the potential for disrupting the dynamics of individual higher education and their respective domestic systems in years to come in the Nordic countries. This sub-section summarizes the tensions of Finnish higher education adapting tensions from Pinheiro et al. (2014) as well as from other discussions supporting the viewpoint of tensions in higher education (HE).

Pinheiro et al. (2014, p. 14) highlight the need to take into account the existing tensions within the higher education institutions (HEIs) and across the entire HE sector, when adopting new regulative frameworks and policy instruments.

According to Pinheiro et al. (2014, p.14) the ongoing dynamics within the Nordic region are characterized by the search for a new social pact between higher education and society with accountability, efficiency and responsiveness as the basis instead of trust and loyalty (Gornitzka et al., 2007; Maassen, 2014). The premise of the discussion of changing higher education and its' tensions in Finland is the fact that Finnish population is aging and the trend is expected to affect the size of higher education age cohorts (Pinheiro et al., 2014, pp. 4–5). The average age of retirement is 63 years old (Kannisto, 2017) and since Finnish universities and universities of applied sciences are based on the principle of restricted entry (*numerus clausus* principle), an accelerating flow of workforce retirements is currently underway at the same time with the HE age cohort declining and is not expected to change within the next 15 years (Pinheiro et al., 2014, pp. 4–5).

Pinheiro et al. (2014, p. 14) suggest that HE policy, although recognized as a significant field of policy, has become less special (Maassen, 2009) in the eyes of the stakeholders upon which the legitimacy of HE sector relies (Jongbloed et al., 2008), i.e. policy makers and external stakeholder groups (Olsen, 2007; Pinheiro, 2012), and has attracted less attention than other policy areas e.g. primary and secondary education or welfare employment. The dynamic relationship between HEIs, the state and market (Clark, 1986, p.161–191; Slaughter and Rhoades, 2004) results in tensions, which Pinheiro et al. (2014, p. 14) highlight and aim to affect to the legitimacy surrounding HE: the academic means of acting as well as the set of norms guiding individuals within the system.

### ***Autonomy, leadership and legitimacy of the university management***

According to Pinheiro et al. (2014, 7) there is a dilemma in Finland's increasing autonomy of universities, since despite being separated from the state bureaucratic structures, state retains a strong financial control over the universities' institutional affairs – though limiting institutional autonomy does not necessarily imply the same for academic freedom (Clark, 1998). After the Finnish Universities Act (558/2009) strengthened universities' financial and administrative autonomy as they ceased being treated as government accounting offices and became independent legal entities (Aarrevaara et al., 2009), public accountability ensured that Finnish universities continued to respond to the 'public agenda'. The responsibility to perform quality assurance became a new requirement alongside the main means of state control the regulation and budgetary control (Pinheiro et al., 2014, pp. 5). Like stated previously in this section, since the Finnish universities are in the state's "corporate governance" the power dynamics have not changed decisively although the organizations' status shifted as an independent legal entity (Kallunki, 2015, p. 20–21).

The Rector's role has also changed to resemble that of a CEO: the Rector does not chair the University Board any longer but is now responsible for preparing proposals to the Board. The role of external members increased in the university board so that at least 40% of the board members must be external. (Pinheiro et al., 2014, p. 6). Pinheiro et al. (2012; *ibid.*) see strengthening the role of external representatives in internal governance on the board level as a means of fostering social relevance and responsiveness, and thus addressing the erosion of external legitimacy of HEIs. The previously mentioned development has distanced the academic community from decision-making (Ministry of Education and Culture, 2016). The

academic community in Finland has not fully accepted the shift from collegial decision making to the enhanced role of external stakeholders' (Jongbloed et al., 2008; Pinheiro et al., 2014, p. 6).

Pinheiro et al. (2014, p.11, p. 14) state that in the Finish context academic freedom has expanded in the direction of greater 'economic freedom' (see Slaughter and Rhoades, 2004) and institutional autonomy has shifted in the direction of administrative and financial autonomy with more uncertain and diminished funding. The traditional forms of freedom of research, teaching and learning have remained outside of this development of freedom (see Clark, 1983). This leaves room for the definition of academic freedom in the Universities Act (6§) (Pinheiro et al., 2014, p. 14).

### ***Pressures on the 'public purse'***

After the financial crisis starting in 2008, Finland was in an economic turmoil. The country, which was on its' lowest point called as "the sick man of Europe" by the international press (Walker, 2016) recovered slowly from the crisis with the GDP being 5% lower in 2013 than it was in 2007 (Pinheiro et al., 2014a, 8). The pressure spread to the society as a whole and universities operated under financial pressure as well. This culminated in budget cuts made on the higher education budget in 2015 (Pinheiro et al., 2014a). Pinheiro et al. (2014, p. 9) highlight this 'pressure on the public purse' as one of the tensions the Nordic higher education system is experiencing. This pressure includes Finland, where approximately two thirds of universities' funding comes from taxpayers (ibid.).

According to Pinheiro et al. (2014, 12) researchers and research groups working around similar research areas, but located at either public universities or research institutions compete with one another for public funding. Less than a quarter of Finland's active researchers work at universities and this minority does not have a dominant position within the academic community.

Pinheiro et al. (2014, p. 9–10) remind that the Universities Act enabled universities to charge tuition fees from students enrolled in second cycle degrees, from outside the EU/EEA area. Until 2014 according to a government report (Ministry of Education, 2013), tuition fees were applied to 41 master's programs of which 32 were at Universities and nine at universities of



applied sciences, and the proportion of overall funding collected through student fees was not significant.

The dilemma Pinheiro et al. (2014, p.4) point out in the HE financing dimension, is the heavy weigh, which Nordic HEI's reserve on the public funding, at the same time trying to increase the dependency from the state by acting in a more market orientated manner. Pinheiro et al. (2014, p.4) and also Slaughter and Rhoades (2004) argue that by acting like this, HEI's risk their traditional function of providing a public good to society.

Gornitzka et al. (2004, p. 99) contemplate the ideal form of financing contract, that could minimize the temptations to exploit the system and state that in order to reach optimal contract mistrust must be eliminated and obtain at least the minimal level of trust. Gornitzka et al. (2004) remind that trust is a cheap resource for maintaining a relationship but it is difficult to establish and easy to loose. "The irony of present-day higher education is that contract arrangements (i.e., the formal accountability arrangements have often been developed as a response to a growing lack of trust, while contracts at the same time depend on trust in order to be able to function adequately. A feature of trust is the following: it is most desired when it is not present". (ibid).

### ***Entrepreneurial university***

The objectives of the University Act (2016) e.g. diversifying of the funding base and competing for international research funding are aligned with the definition of entrepreneurial university (Slaughter and Leslie, 1997) meaning process of implementing market-oriented approaches and corporate models as governance in higher education. Aarrevaara & Hölttä (2008, pp. 127–128) support this by stating that the main reason for the establishment of the legal status of universities has been the importance of service production to society and the ability of universities to operate effectively in the market place with commercial organizations.

Aarrevaara et al. (2009 p. 15) foretell that the new entrepreneurial modes of operation would not necessarily be widely accepted at first in the Finnish universities even though there would be more diversified basis for funding and elements of an entrepreneurial culture. Aarrevaara et al. (ibid.) point to the contradiction between bureaucratic attitudes deriving from the

traditional structures and controlling legislation, and entrepreneurial attitudes from the newly created academic labor market, which favor the entrepreneurial modes of operation as possible problems.

Ylijoki et al. (2012, pp. 116–17) raise a concern about the dominance of externally funded project research and the quality of Finnish science, since the research assessment by the Academy of Finland paid particular attention to the statistical trend in Finnish science has recently turned into a negative direction when compared with other OECD countries. Ylijoki et al. (2012, p. 111) stress that when the production of scientific knowledge is regarded as the tool of global competition and root for economic growth leading to the success of the nation, region and enterprises, university research is increasingly viewed only from an economic angle, emphasizing its societal relevance and economic utility.

The tensions regarding Finnish universities and entrepreneurial mentality as a university are the collision of previous and new attitudes (Aarrevaara et al., 2009) towards accumulating resources and acting in a more agile manner at the same time, when carrying out long-term strategy in research and education activities (Ministry of Education and Culture, 2016).

### *Academic work and profession in change*

Due to the changing environment: the increasing status of knowledge and the rise of entrepreneurial university, also academic profession and work are undergoing significant changes. According to Aarrevaara (2017, T&Y, p. 42) the weakening economical circumstances on the higher education sector and the irregularity of research and education functions have brought uncertainty to the academic work and diminished the working conditions of academics.

The changes made in the university, e.g. the right to establish and fill all positions without external interference, flexible work loads, lump sum budgeting and performance-based budget allocation models, have affected the working environment of university personnel significantly within last decade (Aarrevaara and Hölttä, 2008, p. 121). Aarrevaara and Hölttä (2008, p.121) foretold that “linking the higher education system more tightly to the national and regional innovation systems and the increased institutional autonomy, with its goal of

making universities more market oriented, will most probably be the most essential driving forces behind the change of academic work within the coming years”.

Pinheiro et al. (2014, p. 11) mention that the existing regulative framework with institutional autonomy of universities does not necessarily guarantee fair working conditions for academics lacking sufficient resources for teaching and research or permanent work contracts. This shows as a negative feature, if comparing to the previous system where universities were a part of the state administration. According to Aarrevaara (2017) academic profession is developing in countries with high-growing academic profession like in Asian countries, where as in Finland and other countries with contracting higher education systems, academic profession is aging.

According to Whitchurch (2012) a third space has emerged in between of academic profession and administration, when projects arise from public and market agendas. The tasks, which are in this space, are support of academic skills, technology of education and management of research among others. According to Aarrevaara & Pulkkinen (2016) the significance of internal and external stakeholders has grown and on the side of academic professions’ core functions has risen practices, which expand participation. One example of this is the establishment of the Finnish Strategic Research Council in 2013 (Mickwitz and Maijala, 2015), where besides the traditional academic assessment, the interaction plans of the research projects are assessed.

### ***Structural development of universities, university profiling***

The examples of the higher education reforms in other European countries (e.g. Netherlands and Austria) inspired the Universities Act and universities’ profiling and structural development measures begun from the law reform in 2009. The underlying reasons behind the structural development reform were to activate universities to develop their long-term strategies, expertise in certain fields of sciences in order to reach global top-level position in the selected strategic profile areas and thus be more competitive globally in the eyes of the business sector as well as in the global competition for research funding (Ministry of Education and Culture, 2016, pp. 15–17). The profiling measures were guided with funding, 3% of the Ministry’s university financing model, which is to be applied separately by all of the universities. Universities Act enabled universities total budgetary freedom, which also

supports the strategic profiling measures to allocate the funds according to the strategic alignments.

Profiling measures have been criticized for not taking into account the nature of science itself. It is feared that the centralization of higher education, strategic selections and differentiation will come to control the scientific community and thus prevent the possible breakthroughs, which in case of fundamental research occur through academic diversity, trial and error, sidetracks and serendipity (Tirronen, 2015.) The de-selections of research fields are feared to have a deteriorating impact on the future scientific findings. According to Mustajoki (2017, p. 9) the line between the top-down steering and research based on the own interests of researchers, is one of the most vicious problems of science policy, and the need to foresee and predict relevant topics for over 20 years adds up the challenge. On the other hand according to the 'State of Science' by the Academy of Finland (Treuthardt & Nuutinen, 2012), despite the absence of special guidelines, researchers are able of finding new research themes (Pinheiro et al., 2014, p. 13).

The competition for funding is criticized because of the time and effort needed for fundraising (Pinheiro et al., 2014, p. 13). Since in other countries and on the international level, the attention focused towards competition of research funding is seen to lead in tensions inside the academic communities (Teichler and Höhle, 2013; Pinheiro et al., 2014a) highlight in the Finnish profiling model. Profiling measures challenge academic freedom, when the traditional forms of freedom of research, teaching and curiosity-driven 'Mertonian' research, are challenged with the new strategic, guided alignments (Teichler and Höhle, 2013; Pinheiro et al., 2014a). According to Pinheiro et al. (2014, p. 4) European universities are struggling with finding the balance between the global academic excellence and direct contribution to local economies, and between the traditional collegial forms of governance and professional management (Olsen, 2007) as well as between specialization and centralization. According to Mönkkönen and Neuvonen (2018, p. 20) the global and regional foci can also be complementary and give an example of a university, which attracts global-level talent, companies and investments to the region and produces globally relevant research results and high-quality education.

Like stated previously, academic freedom and autonomy of universities have increased in financial respect and also the mechanism of steering the profiling measures is financial. The

competitive strategic funding is seen as strengthening universities' central administration (Clark, 1998; Pinheiro et al. 2014, p. 7) and thus enabling universities to follow a unified strategy. The empowering of the internal governance structures of universities directs power from bottom of the organization to the university leaders (Clark, 1998), and leaves the responsibility of mediating between the conflicting values to the management (Olsen, 2007). This development has on the other hand made the role of the university college unclear and unstructured in many universities (Ministry of Education and Culture, 2016 p. 78). According to Pinheiro and Stensaker (Pinheiro and Stensaker, 2014; Krücken and Meier, 2006; Whitley, 2008; Ramirez, 2010; Zechlin, 2010) it is traditional that, when universities are transformed more strategic actors, structural and resource related issues gain attention over human relations and management areas.

Efficiency, strengthened competitiveness and enablement for strategic functioning have been the drivers for profiling measures and centralization, still Torjesen et al. (2017, p. 74) remind that it is not yet clear whether the reform processes have truly increased the effectiveness of universities, since the internal transaction costs caused by increasing managerial levels and need for reporting have increased. According (2016, p.78) to the ministry of culture and education, although the prerequisites for profiling have improved the law has not had any significant impact on the formation of stronger and internationally more competitive universities.

### ***The pressure for societal impact and interaction***

Pinheiro et al. (2015, p. 229) name the growing pressures towards HEIs from increasing stakeholder groups as a one of the key challenges of Nordic HE (Pinheiro et al., 2014b; Pinheiro, 2015). Pinheiro et al. (2015, p. 229) argue that the traditional pact between HE and society has been replaced by contractual relationship between state and HEIs, which is defined by accountability and performance monitoring. Also Maassen (2014, p. 33) talks about the global need to redefine the social contract between higher education and society. Alastalo, Kunelius and Muhonen use the concept of 'impact society' to describe the modern Finnish society overwhelmed with assessments of all possible sectors of life and society (Muhonen and Puuska, 2014; Rajavaara, 2007). Although the discussion of the new social contract was commenced already in the pre-millennium years, the discussion of the new, needed contract is still ongoing (Miettinen et al., 2015, p. 272; Maassen 2014). To

summarize, HEIs across the world encounter pressures for societal impact and interaction: how to give back to society and justify the public investments (Pinheiro et al., 2015b; Mustajoki, 2017).

The definition of societal impact and societal interaction, became an acute discussion when the “third mission”, universities’ requirement for societal interaction, was added to the legislation concerning Finnish universities in 2004 (Muhonen and Puuska, 2014, p. 15). The practical or legal meaning of societal interaction is not defined, according to Lyytinen et al. (2015, p. 48) the definition refers usually to interaction between HEIs and the rest of society characterized by the transfer or exchange of knowledge and know-how produced in HEIs. Interaction varies depending on the field of science and its’ natural or relevant ties to the society (Mönkkönen and Neuvonen, 2018).

Societal interaction has been strongly on the agenda of Ministry of Education and Culture, since the enacted third mission. As mentioned, strengthening of the quality and effectiveness of research and teaching activities and the position of universities in the innovation system were part of the objectives of the Universities Act (2016, p.15). Scholars have been criticizing the financing model for not taking into account the interaction activities and recognized budgetary need for interaction activities (Heinonen and Raevaara, 2012).

According to Muhonen & Puuska (2014, p. 14) societal interaction is financed through two instruments: short-term research funding is allocated into projects supporting the decision-making of the Finnish Council of State and long-term strategic funding, with a goal is to solve societal challenges, is managed by the Academy of Finland. Adding societal impact was also one of the objectives behind Universities Act (2016, p.15). Also noteworthy is the strategic research council based inside the Academy of Finland in 2013, which set the first obligatory interaction plan for applying research projects (Suomen Akatemia, 2017.).

According to Niiniluoto (2015) the aforementioned (see sub-section 2.1.2.) traditional academic perspective of high-quality science and education going hand in hand with societal impact, could be seen also in Finland from the universities’ financing model of Ministry of Education, where little weigh was given to independent societal interaction efforts. The indicators of the model remained almost unchanged after the enacted third mission in 2005 and the financing model was criticized or at least wondered of the little attention and

understanding of the demands of societal interaction by Finnish scholars (Heinonen & Raevaara, 2012, p. 4).

The structural development measures, which aim to strengthen the quality of scientific research and education (Ministry of Education and Culture, 2016, p. 78), are in line with the traditional academic impact perspective, aiming to increase the attractiveness for foreign research funding (Mustajoki, 2017; Niiniluoto, 2015; Tirronen, 2013). Approximately 39% of the funding is granted based on results in teaching, 33% based on research and 28% is related to education and science policy considerations (Pietilä, 2018, p. 37). The Ministry of Education and Culture, Ministry of Economic Affairs and Employment together with the National Audit Office of Finland have started processes aiming to more specific definition of the impact of research and possibly also measuring the impact (Mustajoki, 2017, p. 6).

The tensions around the impact and interaction discussion in Finland are the problem of definition and thus measuring (Tirronen, 2015; Lyytinen et al., 2015; Niiniluoto, 2015; Mustajoki, 2017; Mönkkönen and Neuvonen, 2018). In addition, there is a tension between hyper local impact and interaction (e.g. regional development), local impact (e.g. scientific excellence) and global impact (e.g. addressing wicked problems) (Muhonen ja Puuska, 2014; Niiniluoto et al., 2015, p. 21; Mönkkönen & Neuvonen, 2018).

## **2.3 Sustainability tensions – the emerging integrative framework**

The previous theory represented the most dominant scholarly discussions from the field of higher education studies regarding global and Finnish university system in order to recognize the current possible tensions of the system. This section presents the theoretical background of sustainability tensions, the emerging integrative framework by Hahn et al. (2015), through which the social and economic tensions are studied further in this thesis.

### **2.3.1 The New paradigm of corporate sustainability – from win–win paradigm to trade-offs**

Since sustainable development is multi-faceted and complex by nature, it is argued that trade-offs and conflicts in corporate sustainability are the rule rather than the exception (Hahn et al., 2010). According to Hahn and Figge, trade-offs in corporate sustainability describe situations where economic, environmental and social aspects of corporate sustainability cannot be

achieved simultaneously (2010, p. 218). Byggeth and Hochschorner define trade-off situations as ‘compromise situations when a sacrifice is made in one area to obtain benefits in another’ (2006, p. 14–20). Trade-off situations are this way in stark contrast to win-win situations, where it is assumed that benefits in several areas of corporate sustainability can be achieved simultaneously (Hahn et al., 2010, p. 220). The subordination of financial goals in relation to ecological or social objectives, the instrumental logic, dismisses situations, where tensions exist and environmental and social aspects cannot be aligned with financial outcomes (Hahn et al., 2015, 297).

From a more conceptual point of view, the win-win paradigm has two major limitations. First, the win-win paradigm limits the scope of potential corporate responses and approaches to sustainable development. By following the win-win paradigm all potentially positive corporate contributions to sustainable development are not taken into account and firms are restricted to the sole win-win solutions. (Hahn et al., 2010.) Secondly, the win–win paradigm limits one’s analytical perspective on corporate sustainability initiatives and strategies. By following the win-win paradigm, sustainability issues are judged through the lens of profit maximization rather than any other value (ibid.).

Hahn et al. (2010, p. 219) argue that corporate sustainability based on the win-win logic will be restricted to conflict-free solutions. Those solutions have only little ambition to change core business practices for the sake of sustainable development fundamentally (ibid.). By explicitly addressing trade-offs in corporate sustainability: by clarifying the competing considerations, probing what gives them weight, and exploring their relationship, corporations can unmask the potential solutions outside the win-win paradigm and this way distinguish more possible and possible more effective sustainability solutions (Margolis and Walsh, 2003, p. 284).

The mainstream corporate sustainability literature covers conceptual approaches and empirical studies, which belong inside the win–win paradigm and only few scholars in the field are studying contributions to sustainable development beyond the win-win paradigm (Walley and Whitehead, 1994; Young and Tilley, 2006; Dyllick and Hockerts, 2002; Holt and Watson, 2008; Kaptein and Wempe, 2001; Margolis and Walsh, 2003 Hahn et al., 2010, p. 219).



### **2.3.2 The Emerging Integrative view – managing the sustainability tensions**

Early contribution to the integrative view was Elkington's triple bottom line, which paralleled different aspects of the three sustainability dimensions ecological, social and economic. It identifies and displays the three dimensions of sustainability, but does not systematically address the relationship between these aspects (Hahn et al., 2015, p. 298). This lack of systemic approaching is present in the instrumental discourse of corporate sustainability, where the dimensions are contemplated each one individually without further systemic analysis. According to Hahn et al. (2015, p. 301) a more fine-grained analysis is needed in order to understand corporate sustainability that further extends and specifies the economic–environmental–social triad.

The lack of a systematic understanding of the nature of sustainability and its' dimensions represent a gap for the further conceptual development of the integrative view for Hahn et al. (2015), because the few authors, who study corporate sustainability unlimited by the instrumental logic, have not provided a coherent conceptual lens for the analysis and management of these tensions (Walley and Whitehead, 1994; Kaptein, M. et al., 2001; Margolis and Walsh, 2003; Holt and Watson, 2008; Hahn et al., 2015).

The integrative view argues that companies should perceive various sustainability aspect at the same time even though these aspects can be in contradiction with each other. This point of view considers different, various sustainability aspects as interrelated elements and acknowledges and embraces the contradictions among the financial, social and environmental dimensions. (Gao and Bansal, 2013, p. 244; Hahn et al., 2015, p. 299.)

By acknowledging and accepting tensions, managers are not limited by the instrumental logic, but can regard broader spectrum of strategies and this way hold considerable potential for corporate contributions to sustainability, which can under an instrumental view stay unnoticed (Hahn et al., 2010).

#### ***A systematic integrative framework for the analysis of tensions in corporate sustainability***

Hahn et al. (2015, 298) have expanded the perspective on the basis of which they have outlined strategies to manage sustainability tensions, once identified through the framework.

The integrative framework (ibid.) goes beyond Elkington's triple bottom line by contemplating tensions that derive from:

- Different understandings of sustainability across individual, organizational and systemic levels
- Different perspectives on change processes needed to become more sustainable
- Different views on the relevant temporal and spatial context

The framework weaves together literature on strategic contradictions, tensions and paradoxes (Poole and Van de Ven, 1989; Ford and Ford, 1994; Lewis, 2000; Smith and Tushman, 2005; Smith and Lewis, 2011; Hahn et al., 2015) for the identification and characterization of tensions in corporate sustainability. In this context a paradox refers to a situation, where oppositional elements co-exist (Clegg et al., 2002; ibid.). The several individually accepted elements seem to be inconsistent or incompatible, when taken together (Poole and Van de Ven, 1989, p. 563).

The integrative view embraces paradoxical thinking rather than eliminates it. Hahn et al (2015; Smith and Tushman, 2005; Lüscher and Lewis, 2008) argue that achieving corporate sustainability depends on the ability of management to strive for conflicting sustainability aspects simultaneously. In order to capture the sources and characteristics of tensions in corporate sustainability, the integrative framework distinguishes three dimensions:

- Level
- Change
- Context

These dimensions specify tensions between economic, environmental and social aspects in the integrative framework illustrated in the Figure 4 highlighting the multi-level nature of corporate sustainability (Hahn et al., 2015, p. 301).

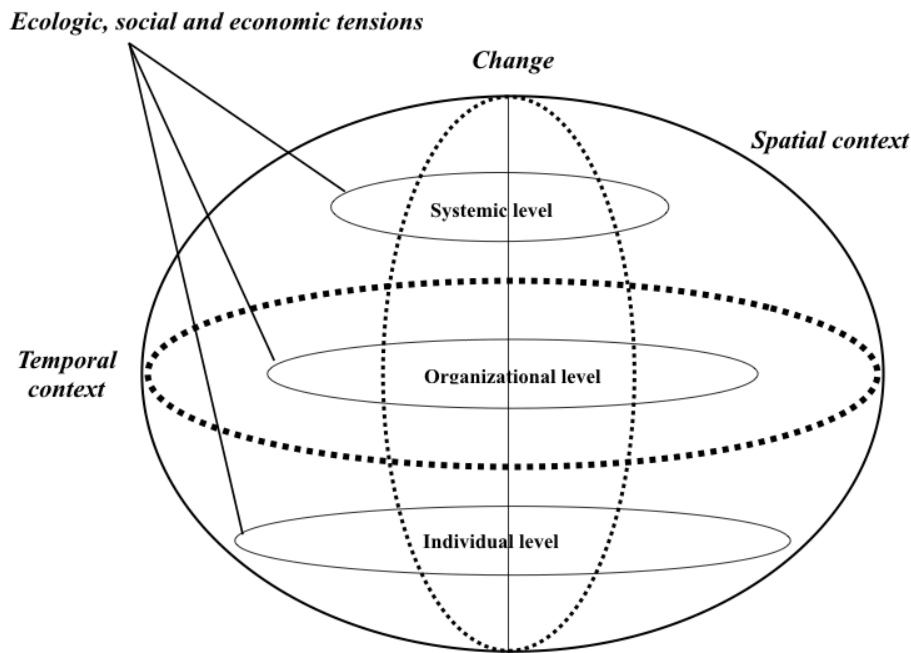


Figure 4 The integrative framework by Hahn et al. (2015)

### *Level*

Corporate sustainability is a multi-level concept (Whiteman et al., 2012) and thus its' underlying economic, environmental and social aspects are not conceptually equivalent across levels of analysis (Kozlowski and Klein 2000) (Kozlowski and Klein, 2000), but instead have different connotations at individual, organizational and systemic levels (Hahn et al., 2015, pp. 301–2).

According to Hahn et al. (2015, p. 302) “the tensions arise from the embeddedness of individual and corporate decision-making as both take place in a wider organizational and systemic context. Individual-level factors e.g. personal values and preferences dictate how decision-makers make sense of corporate sustainability (Cordano and Frieze, 2000; Bansal, 2003; Basu and Palazzo, 2008; Hahn et al., 2015). Tensions between the individual and the organizational level form, when individuals, who posses strong sustainable values (Anderson and Bateman, 2000) face limitations imposed by organizational culture, structure or policies (Bansal, 2003).

Tensions between the organizational and the systemic level arise, when organizational sustainability initiatives do not address sustainability concerns in a sufficient extent. In the systemic-level, corporate sustainability is seen beyond the individual organizations as agency that focuses on the contribution of the company to a more sustainable society at large (Whiteman et al., 2012), in the sense of contributing to a viable economy, a sustainable society and healthy ecosystems. (Hahn et al., 2015.)

### ***Change***

Corporate sustainability calls for organizations to make fundamental changes in their current *modus operandi*, resulting tensions. There are conflicts concerning the most essential domain, where change is most critical, how these aspects are seen as and how the change should happen. Like stated previously in this thesis, the concept of sustainable development involves a transition from unsustainable to more sustainable business practices, consumption modes and economic and social structures. The change requires changes in our current systems and structures, not least in corporate strategy and operations. (Hahn et al., 2015, p. 302.) Thus, Hahn et al. (2015) refer to change as a dynamic process of alternative pathways and transformations that lead to more sustainable business practices. The manner of how change will happen in the future is obviously unclear, however, what can be presumed is that the pathways are rich with tensions (*ibid.*).

While vested interests will often incentivize firms to only change incrementally, the urgency of certain social and environmental issues would require faster actions. The tension stemming from the change dimension can be illustrated by the disagreement between different organizations on how to proceed with the transition to renewable energy. Though the technology is developed to a point of commercialization, the industry resists the change due to the existing business models and alliances. (Pinkse and Groot, 2013; Hahn et al., 2015.)

### ***Context***

The third dimension of tensions is the context, which consists of the temporal and spatial elements in which the transition towards sustainability takes place (Poole and Van de Ven, 1989; Ford and Ford, 1994; Hahn et al., 2015). The temporal element highlights the intergenerational equity, the equity for future generations, aspects of social, economic and environmental issues, which is essential for sustainable development (Hahn et al., 2015, pp.

302–03.) Temporal tensions refer to the question whether organizations' strategies undervalue long-term outcomes regarding economic, environmental and social aspects (e.g. short-term environmental performance versus long-term environmental performance) or overvalue short-term outcomes on the expense of long-term goals on certain other aspects (e.g. short-term financial performance versus long-term social performance). (Hahn et al., 2015, pp. 303.)

The spatial element captures tensions and refers to intragenerational equity (Okereke, 2006; Hahn et al., 2015, p. 303). Intragenerational equity has a strong spatial notion because it concerns equitable development opportunities between regions of different development levels at the present time and thus is a central element of sustainable development (Hahn et al., 2015, p. 303). According to Hahn et al. (2015) the spatial element refers to tensions, when e.g. companies operate in developing countries with different environmental or social standards (Christmann, 2004). Spatial tensions touch upon environmental justice in relation to the localization of polluting factories in low-income, minority or other disadvantaged neighborhoods (Pellow et al., 2001) and when multinational corporations face the question, whether to apply home country standards, host country standards or by a universal standards. (Hahn et al., 2015 p. 303; Donaldson and Dunfee, 1994.)

## 2.4 Summary of the theoretical framework

This section draws together the theoretical framework: the concepts and theories used in this study and how they are related to each other. To briefly recapitulate, this thesis focuses on the sustainability tensions in the Finnish higher education system, in the university system. That is why the theoretical framework unites scholarly discussion from many fields of sciences: from higher education studies, political science, management studies, corporate sustainability studies and sustainability studies.

The topic of this thesis, social and economic sustainability tensions in the Finnish university system, has not been studied before per se. There has been several studies concerning sustainability aspect in the university context focused how the curricula can provide information on sustainability issues, how the university as an organization can reach a level of a minimum ecological footprint, but little attention has given to the social and economic dimensions of sustainability in the context of a university. Or, the topic has not been named as sustainability studies, but rather studies focusing in human resources, finance or entrepreneurship in the university context.

This study focuses on the management and senior official level perspective of the Finnish university system and is primarily interested in sustainability as in *sustaining* and attaining a university system, which is ecologically, socially and economically sustainable. Ecological dimension is seen in this thesis as the dominant driver of sustainable development movement. It is not focused on, since the most topical discussions of HE concern mostly social and economic aspects e.g. the autonomy of the modern university institution (e.g. Krejsler, 2006; Deem et al., 2008), the global competition of universities and its' consequences: the increasing weigh on rankings and series of university mergers (e.g. Altbach, 2004; Harman and Harman, 2008), in Finland more particularly the consequences of the law reform in 2009 and the role of government in the university system (e.g. Aarrevaara and Hölttä, 2008; Pekkola, 2009; Tirronen, 2015). The literature review, presented in the Figure 6, consists of these discussions.

The ecological dimension is not any less significant, on the contrary. The perspective on ecological sustainability of this thesis is that, since knowledge is crucial to the paradigm shift

towards more sustainable ways of living, and is created in the universities, research is today more important than ever (Burbules and Torres, 2000).

From the point of view of the research gap, this study aims to apply these imbricated, acute discussions on HE on the framework of corporate sustainability: the emerging integrative framework by Hahn et al. (2015). I justify the relevance of using the framework for sustainability tensions in the corporate context for three reasons: firstly universities resemble corporations increasingly. They are competing globally and their organization structure resemblances that of a corporation and e.g. Marginson (2016) defines universities as quasi-business organizations. Secondly, sustainability tensions per se, are as important problem for a university as for a corporation. Thirdly, since universities produce new knowledge and are most often publicly funded, it is important to aim for transparency considering the underlying tensions and agendas driving this knowledge production process.

The sustainability tensions studied in this thesis are based on the scholarly discussion on Finnish university system and the discussion on the changing HE on a global level. The article by Pinheiro et al. (2014) “Nested tensions and interwoven dilemmas in higher education: the view from the Nordic countries”, builds the strongest link between the global and national HE discussions and corporate sustainability tension theory. Though the notion of tensioned higher education field is should not be news, since the tensions can be detected if following the Finnish media. The literary review of this thesis is emphasized on the theory regarding the tensions in higher education. The review is broad, since the aim of this study is to form a systemic and holistic view of the tensions of the Finnish university system.

There are certainly more tensions in the Finnish university system depending on how closely and, which part of the university system is under the lens. The nine social, economic and socio-economic sustainability tensions, which are studied in this thesis, are presented in the Table 1. Each of these tensions could be studied with more depth. However, this study strives to combine HE discussions from different fields of sciences in order to have a systemic approach on the systemic problem, the sustainability tensions in the Finnish university system. That is why this thesis intentionally draws a big picture of the current social and economic tensions in the Finnish university system outlined in the Figure 6.

Table 1 presents the literature behind all of the tensions, as well as the nature of the tensions; social, economic or socio-economic and level of the tensions; individual, organizational and systemic. In many cases social and economic dimensions are intertwined and thus defined as socio-economic sustainability tensions.

The integrative framework takes into account factors of context: spatial and temporal, and level: individual, organizational and systemic. Only tension in the spatial context is the tension number 2. *Structural development of universities, university profiling*. It is strongly bound to physical space, since the question is linked to the regional policy of Finland. All other tensions are categorized as temporal and most of the tensions are touching every level of the framework. The tensions number 5. *Pressures on the 'public purse'* and number 8. *The role of the state in the university system*, are happening more on the organizational and systemic levels than on the individual level. The effects of the tensions on the individual are indisputable, but the tensions themselves are not concerning for an example individual researcher working at the university.



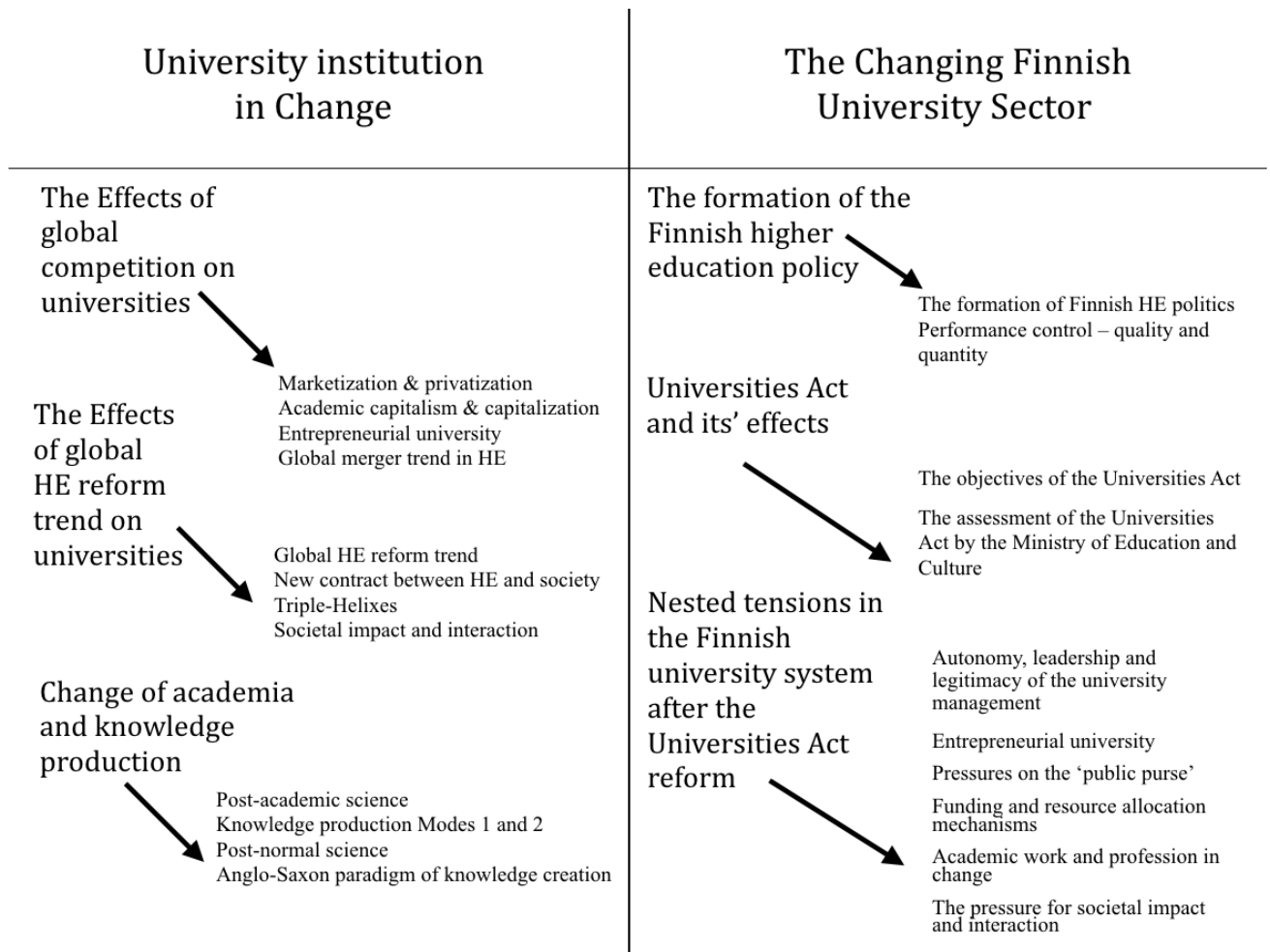


Figure 5 Summary of the theoretical framework

The sustainability tension	Theoretical background of the tension	Category of the tension: social (Ts), economic (Te) or socio-economic (Ts&e)	Level of the tension: individual (i), organizational (o) and systemic (s)	Specification
1. Entrepreneurial university	<ul style="list-style-type: none"> <li>Global competition in HE (Slaughter and Leslie, 1997; Etzkowitz, 1998, Clark, 1998; Mok &amp; Welch, 2003; Rothaermel et al.,</li> </ul>	Ts&e	i – o – s	Universities' pressure for entrepreneurial activities: accumulating resources, acting in a more agile manner and teaching entrepreneurial mindset and skills – at the same time carrying out long term strategy in research

	<p>2007; Styhre and Lind. 2010)</p> <ul style="list-style-type: none"> <li>• Global merger trend in HE (Altbach, 2004; Jobbins, 2005; Deem 2008; Harman &amp; Harman, 2008; Aula, 2015)</li> <li>• Global trend of HE reforms (Etzkowitz and Leydesdorff, 2000; Mok and Welch, 2003; Krejsler, 2006; Deem, 2008, Moisiso, 2014)</li> <li>• Tensions in the Finnish HE (Aarrevaara et al. 2009, Ylijoki et al. 2012, Pinheiro et al. 2014)</li> </ul>			activities and not only listening to short-term market signals.
2. Academic freedom and responsibility	<ul style="list-style-type: none"> <li>• Global competition in HE: marketization, academic capitalization (Slaughter &amp; Leslie 1997; Mok &amp; Welch 2003; Wedlin, 2008; Aula, 2015)</li> <li>• Global trend of HE reforms (Etzkowitz and Leydesdorff, 2000; Mok and Welch, 2003; Krejsler, 2006; Deem, 2008, Moisiso, 2014)</li> <li>• Change of knowledge-production: Modes 1 and 2, post-academic science, post-normal science (Gibbos et al. 1994; Ziman; 1996; Ravetz 1999; Marginson, 2008)</li> <li>• The Finnish HE reforms and its' effects (Aarrevaara &amp; Hölttä, 2008; Pineiro et al. 2014; Tirronen, 2015)</li> </ul>	<b>Ts</b>	<b>i – o – s</b>	The tension between freedom of research (for individuals and universities) and strategic decisions of university management and ministry level and global institutions steering the direction of HE (e.g. OECD, World Bank).

<p>3. Academic work and profession in change</p>	<ul style="list-style-type: none"> <li>• Global competition in HE (Harman &amp; Harman, 2008; Wedlin, 2008; Aarrevaara; 2017;)</li> <li>• Change of knowledge-production: Modes 1 and 2, post-academic science, post-normal science (Gibbos et al. 1994; Ziman; 1996; Ravetz 1999; Marginson, 2008)</li> <li>• The Finnish HE reforms and its' effects (Aarrevaara &amp; Hölttä, 2008; Withchurcch, 2018; Pineiro et al. 2014; Tirronen, 2015,)</li> </ul>	<p><b>Ts</b></p>	<p><b>i – o – s</b></p>	<p>Academic work is more competitive and measured than ever. The increasing tension between performing research activities and at the same time working as a project manager and financial officer of the work.</p>
<p>4. Role of university institution in the future</p>	<ul style="list-style-type: none"> <li>• Change of knowledge-production: Modes 1 and 2, post-academic science, post-normal science (Gibbos et al. 1994; Ziman; 1996; Ravetz 1999; Marginson, 2008)</li> <li>• Western hegemony of science, indigenous knowledge (Agrawal, 1995; Ravetz 1999, Fukayama, 2005; Deem, 2008)</li> </ul>	<p><b>Ts&amp;e</b></p>	<p><b>i – o – s</b></p>	<p>The tension between changing ways of knowledge production (Mode 2, post-academic and post-normal science) and intensifying need for knowledge e.g. for global crisis management and solving the wicked problems. The hegemony of Western science is becoming increasingly established with university rankings based on business-driven parameters.</p>

<p>5. Pressure for societal impact</p>	<ul style="list-style-type: none"> <li>• Global competition in HE: marketization, academic capitalization (Slaughter &amp; Leslie 1997; Mok &amp; Welch 2003; Wedlin, 2008; Aula, 2015)</li> <li>• Global trend of HE reforms (Etzkowitz and Leydesdorff, 2000; Mok and Welch, 2003; Krejsler, 2006; Deem, 2008, Moisiso, 2014)</li> <li>• The Finnish HE reforms and its' effects (Aarrevaara &amp; Hölttä, 2008; Pineiro et al. 2014; Maassen, 2014, Muhonen and Puuska, 2014, Tirronen, 2015, Mustajoki, 2017, Mönkkönen and Neuvonen, 2018)</li> </ul>	<p><b>Ts&amp;e</b></p>	<p><b>i – o – s</b></p>	<p>Increasing demand for societal impact and interaction – at the same time poor parameters for measuring it and lack of information for requirements, means and ways to put it into practice.</p>
<p>6. Pressures on the 'public purse'</p>	<ul style="list-style-type: none"> <li>• Global competition in HE: marketization, academic capitalization (Etzkowitz and Leydesdorff, 2000; Mok and Welch, 2003 Olsen et al, 2007; Stevens et al, 2008;)</li> <li>• The Finnish HE reforms and its' effects (Gornitzka et al., 2004Aarrevaara &amp; Hölttä, 2008; Pineiro et al. 2014; Tirronen, 2015)</li> </ul>	<p><b>Te</b></p>	<p><b>o – s</b></p>	<p>The resources of the public sector are in decline. Tuition fees and other possibilities for funding the university sector are considered by the Finnish government. This is a trend on a global level as well.</p>

<p>7. Role of the state in the university system</p>	<ul style="list-style-type: none"> <li>• Global trend of HE reforms (Etzkowitz and Leydesdorff, 2000; Mok and Welch, 2003; Krejsler, 2006; Deem, 2008, Moisiso, 2014)</li> <li>• The formation of Finnish HE politics (Kauko, 2011; Rinne, 2010; Lampinen 2000)</li> <li>• Nested Tensions in the Finnish HE system (Pinheiro et al. 2015)</li> </ul>	<p><b>Ts&amp;e</b></p>	<p><b>o – s</b></p>	<p>The tension between state wanting universities to be more autonomous (e.g. resource accumulation) – still a need to govern the HE system as a “national innovation system” with a unified strategy.</p>
<p>8. Structural development of universities, university profiling</p>	<ul style="list-style-type: none"> <li>• Global competition in HE (Olsen et al, 2007; Stevens et al, 2008; Aula, 2015)</li> <li>• Global merger trend in HE (Altbach, 2004; Jobbins, 2005; Deem 2008; Harman &amp; Harman, 2008; Aula, 2015)</li> <li>• Universities Act 2009 (558/2009) and its’ evaluation 2016 (Ministry of Education and Culture)</li> <li>• The discussion of the tensions in profiling in Finland (Treuthardt &amp; Nuutinen, 2012, Pinheiro et al., 2014, Tirronen, 2015, Torjesen et al., 2017)</li> </ul>	<p><b>Ts&amp;e</b></p>	<p><b>i – o – s</b></p>	<p>The tension between the national goal of wanting world-class universities and the regional policy of Finland, with limited resources and ambition to keep the whole country inhabited.</p>

<p>9. Academic leadership and legitimacy of the management</p>	<ul style="list-style-type: none"> <li>• The Finnish HE reforms and its' effects (Aarrevaara &amp; Hölttä, 2008; Pineiro et al. 2014; Tirronen, 2015)</li> <li>• The assessment of the Universities Act 2009 (Ministry of Education and Culture, 2016)</li> <li>• Global merger trend in HE (Altbach, 2004; Jobbins, 2005; Deem 2008; Harman &amp; Harman, 2008; Aula, 2015)</li> </ul>	<p>Ts</p>	<p>i – o – s</p>	<p>After the Universities Act reform in 2009, academic leaders gained more power and rector's role became more of a CEO – the Finnish university community is at the same time diverged from decision-making.</p>
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Table 1 The economic, social and socio-economic sustainability tensions of the study

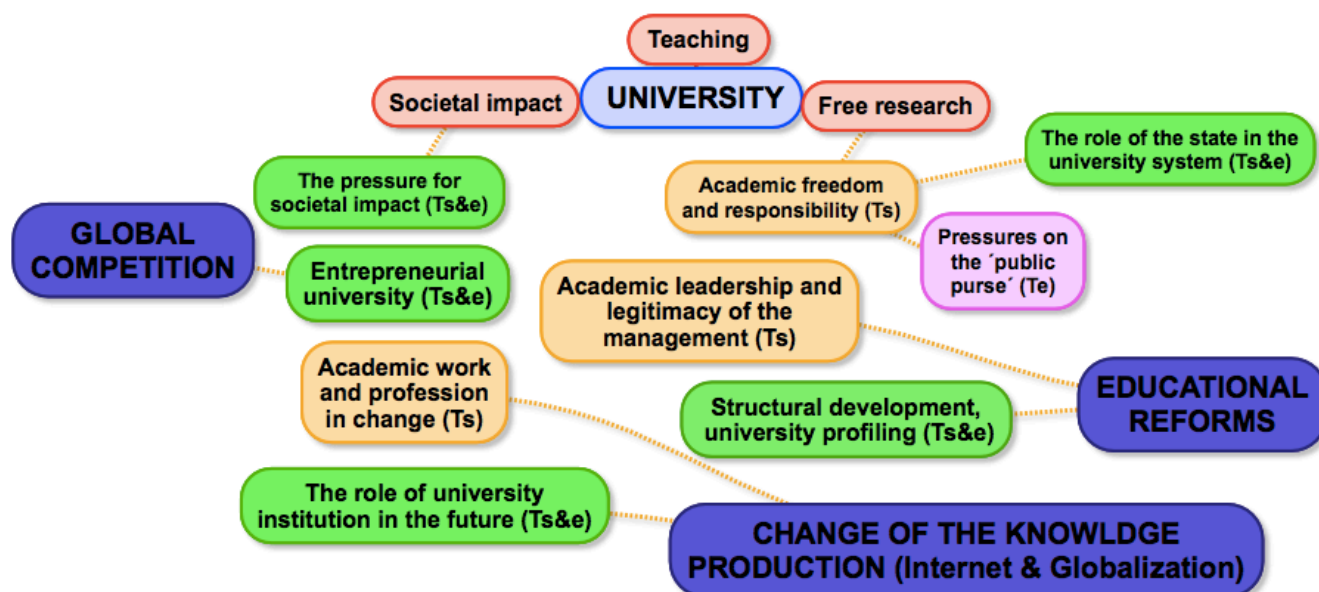


Figure 6 Summary of Finnish university system's nine sustainability tensions and the global trends affecting on it

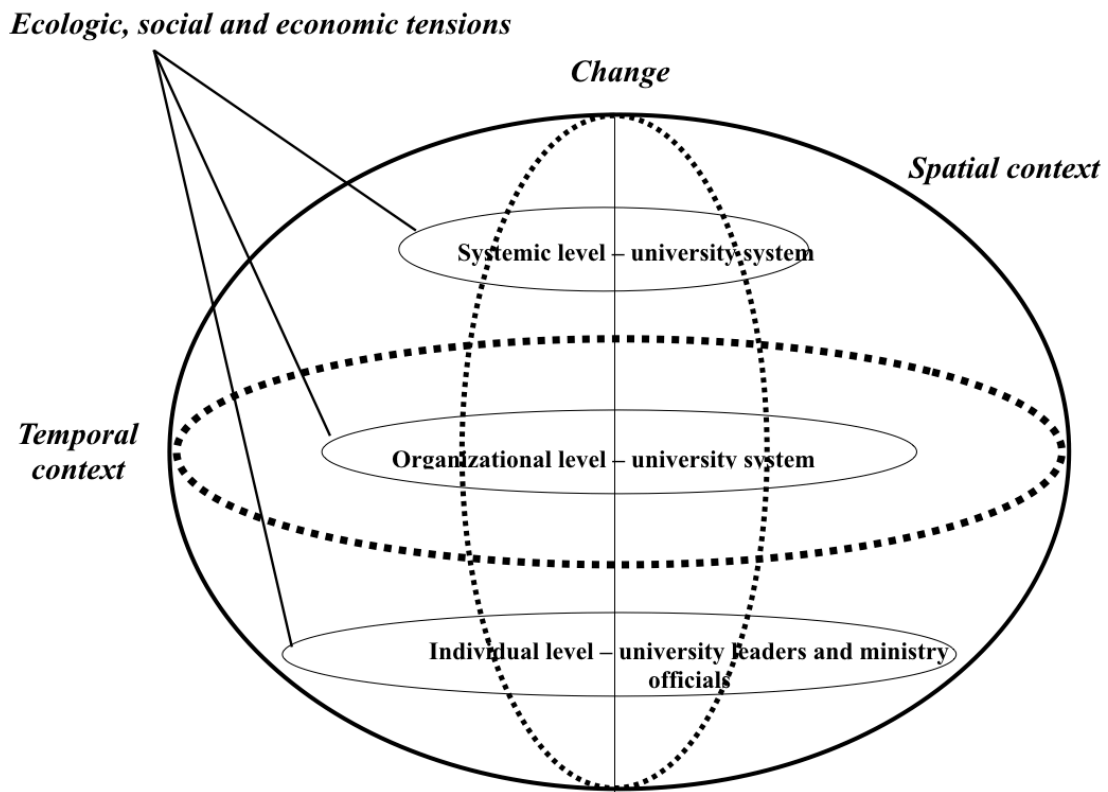


Figure 7 The Integrative framework (Hahn et al. 2015) adapted for studying sustainability tensions in the university context

### **3. Research Design and Methods**

This chapter reviews and justifies the research design and methods used in this study. First the research approach of the study and the research strategy and context are clarified and justified. Then the data sampling and collection are walked through briefly, after which the process and decisions of data analysis are presented and reasoned. In the end the research process and ethical considerations are reflected.

#### **3.1 Research approach**

This study is following the qualitative research tradition. I justify the use of the qualitative research tradition, since the studied phenomena, social and economic sustainability tensions in the Finnish university system are rather new and unstudied field and thus this study is an explorative study. According to Kovalainen & Eriksson (2008, p. 4) qualitative research is relevant, when prior insights about a phenomenon under the lens are modest and its' problems thus unstructured.

The ontology of the study is social constructionism and subjectivism, since I aim to increase general understanding of the phenomenon of sustainability tensions of universities in Finland (Eriksson & Kovalainen, 2008, 14, 21). According to Eriksson & Kovalainen interpretative and constructionist researchers start out with the assumption that access to shared, dynamic and individually constructing reality is only through social constructions such as language and shared meanings (2008, p. 21). This approach is relevant, because sustainability itself is a topic, which is hard to study with a solely positivistic ontology. It is socially constructed, new concept and thus means very different things to different people.

Although the objective of this study is to reach a holistic overview of the whole Finnish university system and its' tensions, I selected social constructivism as the ontology of the thesis in order to get a hold of the tensions within the system. According to Hahn et al. (2015) sustainability tensions occur when individuals possessing values, collide into opposite organizational actions representing strongly differing values. The integrative framework by Hahn et al. (2015) is studying sustainability tensions on three levels: individual, organizational and systemic. This is why I considered natural and important to study the



university system in a way, which takes into account the individual perceptions of interviewees and builds the systemic picture based on the many individual perceptions.

This study follows phenomenology as the research methodology. Since this study aims to obtain knowledge of a new phenomenon, the economic and social sustainability tensions of the Finnish university system, phenomenology, which studies the nature and meanings of new phenomena, seemed as a fit choice (Finlay, 2009). According to Langdrige (2007, p. 4) phenomenology strives to focus people's lived experience, on people's perceptions of the reality and what it means to them. The focus of this study is the perceptions of the university leaders and officials regarding the tensions on the university system and grasping the essence of the perceptions of the interviewees of the tensions and as Merleau-Ponty (2002, p. vii) points out phenomenology is "the study of essence", which researches the essential meanings of phenomena (Kafle, 2011, p. 189). This study follows Heideggerian Smith's interpretive phenomenological analysis (IPA), where exploring in detail of "how participants make sense of their personal and social world and the meanings particular experiences" is relevant, since aiming to understand the experiences and perceptions of the interviewees of the study (Gill, 2014, p. 126). The research process of this study was hermeneutic, which is typical for phenomenological research method (ibid.). The theoretical framework was to be re-entered after new tensions emerged from the interview data and the process of data analysis and writing was a cyclical process, where the thesis was reiterated in the phase of progress.

### **3.2 Research strategy and context**

The research strategy of this thesis is following the tradition of semi-structured interview-based comparative study (Eriksson and Kovalainen, 2015, pp. 5–7). I aimed to discover the nature of the sustainability tensions of Finnish university system and selected the semi-structured interviews as the research method in order to gain information of the values and individual perspectives of the interviewees.

I decided to study the university management and senior officials of the ministry of culture and education in order to have an access and somehow systemic view of the university system. Since the management level of an organization works with the broadest systemic perspective, I chose to study the management level of universities. I selected to study also the perspective of the policy maker in order to deepen the systemic aspect and differentiate

sustainability tensions. In order to reach a deeper understanding of the university management perspective and since the tensions of the scholarly discussion are linked to regional differences, I saw decided to study two Finnish universities with different strategic commitment levels to sustainability and differing positions and missions in the Finnish higher education system. I chose to study one Capital region and one Northern region university, since I location is a significant factor forming peoples' perspectives in general and thus also organizational perspectives (Gupta and Ferguson, 1992). I granted all of the interviewees' full autonomy and thus I cannot name the selected universities or give too detailed information of their characteristics.

In the end the comparative positioning of the study formed into following research question:

*What kind of social and economic sustainability tensions exist in the Finnish university system?*

The goal of this study is to show of a slice of reality of the interviewees form each of the three organizations, construct organizational realities and in the end systemic view of the by comparing the organizational perspectives to each other.

After the research questions were formed, I crafted the initial literary review based on which the sustainability tensions of the Finnish university system started to take shape and also the manner of applying the integrative framework in studying tensions became clearer. After this I conducted the interview guide and designed the interviews. My research strategy was to explore the tensions detected from the scholarly discussion, through the interviews and then apply the results on the integrative framework. This research follows abductive reasoning, where the theoretical framework, analysis and discussion evolve simultaneously in a rather non-linear way going back and forth between the theory and discussion (Dubois and Gadde, 2002). I followed the hermeneutic research process: understanding, constructing and deepening meaning in the interpretative process during research activities (Erikson & Kovalainen, 2008, p. 28).

### **3.3 Data sampling and collection**

I used semi-structured interviews as the primary data of this research. I sampled the data using theoretical sampling and chose to interview four university leaders from each university and

three ministry officials (Kovalainen & Eriksson, 2008). The reason for interviewing larger sample of university leaders was due to the diverse job descriptions differing universities have in their management operations.

I structured the interview guide very carefully in order to take the integrative sustainability framework (Hahn et al., 2015) into account and gain insights on the all three levels of the framework as well as information regarding all of the nine sustainability tensions based on scholarly discussions and public reports and documents.

I conducted following interviews:

- 4 members of university management from a Finnish Capital region university
  - Three Vice-rectors and Dean
- 4 members of university management from a Finnish Northern region university
  - Rector and three Vice-rectors
- 3 senior officials from the Finnish Ministry of Culture and Education working with higher education and science policy

I refer to the interviewees from universities as *university leaders* in the Findings and Discussion chapter. The definition of a university leader is used e.g. by Hölttä and Nuotio in “*Academic leadership in a self - regulative environment: A challenge for Finnish universities*” (1995) of academics, like rectors, deans and heads of faculty, in management positions. I use this general title, because the universities had various own titles and I do not want to highlight certain members of the university management by using the specific titles. Also more accurate titles could harm the anonymity of the interviewees. I refer to the senior officials from the Ministry of Education and Culture as *officials*. Since this thesis focuses on the systemic view on the tensions, the differences between different management positions of the perspectives was not focused on, though the perspectives of the three organizations were structured through the individual perspectives of the interviewees.

Since the approach of this study is social constructivism, I assumed that the interviewees are active constructors of knowledge and acknowledge that interview encounter is a dialogue where knowledge is produced through interaction. This being, my approach is the one of an active interview (Holstein & Gubrium, 1997).

The interviews were structured and guided (Kovalainen & Eriksson, 2008, 5–22) from 45 minutes to one-hour length and took place in the premises of the interviewees' home organizations. The reason for choosing structured interview was the busy schedules of the interviewees and the several specific themes I wanted to get information of. I left space for extra questions, in cases where the interviewee did answer very shortly and also let the interviewees give long answers and tell anecdotes, if it seemed to flow naturally from the interviewee. The downside on using structured interviews is that the themes do not have the chance to emerge. This is why the interview structure included questions of "is there something you would like to add when discussing this theme". I also strived to be an active interviewer in the sense that I was attentive to the tones of voices where the interviewer was prone on continuing the discussion.

Interviews were recorded and transcribed word to word. The transcripts were stored in my personal computer and recordings in my personal mobile phone and destroyed after the thesis was finalized. No copies of the transcripts and recordings were made and due to the intimacy of the research topic all the informants were given anonymity.

One of the challenges of the interviews was to neutralize the subject of sustainability, since the word is loaded with guilt, positive and negative connotations, links to subcultures and identities. The word 'sustainability' was used as little as possible, since it directed the answers of the interviewees to the traditional topics of sustainability e.g. recycling or saving energy instead of the tensions of the university system.

I went through the levels from the integrative framework by Hahn et al. (2015). The individual experiences represented the individual level, experiences of the university, where one works (or Finnish university system in the case of the ministry) represented the organizational level and experiences of the society and university system as a whole represent the systemic level. I proceed from the micro perspective to the macro perspective. I started with the introduction and starter questions including introductions and explanation of the study and interview. Then I proceeded to the individual level questions regarding interviewees job, personal values and organization's values. After this I moved to the four question sub-sets regarding the social and economic sustainability tensions based on the literature review. First sub-set was about personnel and management, second sub-set regarded research and education and third sub-set was about finance and administration and the fourth

regarded the role of the university zooming out into a bigger question. Interviews ended to a brief final reflection: a possibility to raise up issues, which were not mentioned or give other comments regarding the interview.

I asked the same questions from the two universities although some questions were modified to concern the university leaders' home organization, and the ministry officials in turn were asked about the Finnish university sector as a whole (see Appendix 1: The interview questions). I asked open questions, but also some closed and direct questions to pace the interview and relax the tension of the topic. The interviews were conducted in Finnish, which was the mother tongue of the interviewees and I tried to simplify the language as jargon-free as possible.

I gained access to the interviewees via email. I specified that my motivation level is high, will communicate the results to the public and am very flexible with the timing and place. I was also very clear of the anonymity of the interviewees. Majority of the leaders responded to the interview invitation and majority accepted to take part in the interview, since they saw the topic of the study as important. I was happy to conduct eleven interviews during the time between April and June in 2017.

### **3.4 Data analysis and interpretation**

It is rather hard to recognize, when does the qualitative analysis of data start, when it is done and when does it end. I conducted the data analysis throughout the research process starting from the first interview I made (Stake, 1995, p. 71). I performed passive data analysis and reflection throughout the process, and clarified the analysis in writing in different active phases. After each interview, I wrote notes of the interview situation, interviewee, interaction and the overall atmosphere in order to go back to the moments and this way make sense of what was said and meant by the interviewees as well as remember details that could not be detected from the transcription. This way the first analysis phase of the data was made after each interview. In this phase I focused on the surprising answers and insights in order to make some sense of the large amount of interesting data. I continued this incremental analysis during the transcription of the interviews.

According to the perspective of social constructionism, the reality is built by social and verbal interaction (Berger & Luckman 1994). Thus, language and discourse are relevant objects for studying. In my study, I wanted to create a rich description of the individual experiences as well as try to find similarities and differences between the three organizations and get to the essence of tensions (Merleau-Ponty, 2002). Because the phenomena I was studying is rather new, I felt more relevant on focusing on what is said than how is said still taking into account the interaction and the interview experience especially if they were in contradiction.

Interviews were transcribed word to word in the same language they had been made, in Finnish. The details, weighs, tones of voices and simultaneously talking were not transcribed, instead I focused on comments, words and sounds tied directly to words, when transcribing the data. After transcribing an interview I summarized it in notes of what was surprising reflecting the scholarly discussion and other interviews and this way tried to get a hold of the several complex themes I was studying.

In the transcription phase I noticed that the sustainability tensions I studied were a rather heavy and complex topic to cover, since all of the nine (and later on 11) tensions had deep discussions of their own, and in some interviews the comments focused on different the tensions on different levels and many of them used differing terms of the same things. I experienced the transcription process as an empowering experience. It reminded of the experiences of people and the societal importance of the topic I was researching, while I was simultaneously re-entering and iterating the theoretical framework. The transcription process was conducted during the time of April and September in 2017.

After the transcription process I coded the interview data using NVivo Software, which is designed for coding qualitative transcribed data. I coded the data in several different phases, using thematic analysis (Braun & Clarke 2006). I coded the interview data in several different rounds re-entering the data, and when important new repeating themes emerged I created new codes. When the data was coded to the point that there were no new significant repetitive themes, I organized the codes into categories. In the end the categories were the sustainability tensions of the theoretical framework or strongly linked to the tensions. In order to really perceive the emerging themes form the data, around the tensions, I crafted a coding instruction in which under each nine sustainability tensions and two emergent tensions there were specified, which categories and codes were the ones linked to the tension.

The themes were crystalized in writing. I constructed a text of each organizations perspective on the nine sustainability tensions and two emergent tensions. The Findings and Discussion chapter was originally significantly longer describing the tensions in each organization with 30 pages and discussion of 30 pages and focused more on the individual perceptions and experiences of the interviewees. I decided to summarize the chapter and fit the most valuable insights to the Findings and Discussion chapter. Based on the original long version of the findings of how each organization perceived each tension, I was able to compare organizations’ perspectives on the scholarly discussion, to each other and finally apply the results on the integrative sustainability framework (Hahn et al., 2015).

This way my analysis followed the Smith’s interpretive phenomenological analysis, where it is typical to perform the following four stages of analysis. First the transcript is read and analyzed the researcher interprets the transcription and develops themes to capture the essence of the interviewees’ experience. Second, the themes are analyzed and master themes are formed. Third, the transcripts are analyzed through the emergent master themes and fourth, the researcher’s analytic interpretation is presented in detail accompanying with quotes from the interviewees, like done in the chapter 4. (Gill, 2014, p. 126.)

I present all of the tensions and the strength of the tensions in the end of the Findings and Discussion chapter, in Table 3. Like stated, it was somewhat challenging to detect the tensions, since the interviewees had varying ways of stating their experiences and perceptions. I divided the tensions according their perceived strength in the organizations. I used three levels in dividing the tensions: weak tensions (1 person mentioned), somewhat significant tensions (2 persons mentioned) and significant tensions (3+ persons mentioned). I classified a tension in the interview, if the

Sustainability tension and its specification	How the tension was detected
<p>1. Entrepreneurial university</p> <p>The tension between universities’ pressures for entrepreneurial activities: accumulating resources, acting in a more agile manner and teaching entrepreneurial mindset and skills – and at the same time carrying out long-term strategy in research and education activities.</p>	<p>If the interviewee experienced contradiction between entrepreneurial activities, commercial goals and university’s goals.</p>

<p>2. Pressure for societal impact and interaction</p> <p>Increasing demand for societal impact and interaction, at the same time poor parameters for measuring it and lack of information for requirements, means and ways to put it into practice.</p>	<p>If the interviewee detected the pressure for societal impact and interaction focused on universities.</p>
<p>3. Academic freedom and autonomy of universities</p> <p>The tension between freedom of research (for individuals and universities) and strategic decisions by university management and ministry level and global institutions (e.g. OECD, World Bank).</p>	<p>If the interviewee did perceive any tension (e.g. room for improvement, contradicting goals) in the level of autonomy of universities in Finland.</p>
<p>4. Academic work and profession in change</p> <p>The increasing tension between performing well on research duties and at the same time working as a project manager and financial officer of the work and enduring the pressure of accountability and communication requirements.</p>	<p>If the interviewee did not detect change in the work of researchers on the individual level and did not perceive any particular significant changes in the work of researchers.</p>
<p>5. Role of university institution in the future</p> <p>The tension between changing ways of knowledge production (Mode 2, post-academic and post-normal science, open science movement) and intensifying need for knowledge e.g. for global crisis management and solving the wicked problems. The hegemony of Western science is becoming increasingly established with university rankings based on business-driven parameters. At the same time companies have started to develop education services.</p>	<p>If the interviewee appointed tension in the future of the university institution* e.g. significant changes or competitors.</p> <p>*The future of universities is not as clear tension with two poles as e.g. the pressures on the public purse. However, the question of the future of university institution and the growing needs from its' stakeholders is a tensioned field.</p>
<p>6. Pressures on the 'public purse'</p> <p>The resources of the public sector are in decline. Tuition fees and other possibilities for funding the university sector have been considered by the Finnish government.</p>	<p>If the interviewee detected a tension deriving from the scarce resources of the state.</p>
<p>7. Role of the state in the university system</p> <p>Tension between the state wanting universities to be more autonomous (e.g. resource accumulation) – still a need to govern the HE system as a “national innovation system” with a unified strategy.</p>	<p>If the interviewee perceived tensions or problematic aspects in the relationship of the state and universities.</p>



<p><b>8. Structural development of universities, university profiling</b></p> <p>The tension between the national goal of wanting world-class universities and the regional policy of Finland, with limited resources and ambition to keep the whole country inhabited.</p>	<p>If the interviewee perceived tensions or problematic aspects in the structural development of the Finnish university sector.</p>
<p><b>9. Academic leadership and legitimacy of the management</b></p> <p>After the Universities Act reform in 2009, academic leaders gained more power and rector's role became more of a CEO – the Finnish university community is at the same time diverged from decision-making.</p>	<p>If the interviewee saw any tensions or problematic aspects in the position of academic leaders in their academic communities or problematic aspects resulting from the changing position of university management.</p>
<p><b>10. The Emergent, regional political tension</b></p> <p>The tension regarding the different perspectives on the university system depending on the regional position emerged from the interviews. Northern and Capital region perspectives on the university system were rather opposite.</p>	<p>If the interviewee mentioned regional, or regional political aspects problematic in decision-making concerning the Finnish university system.</p>
<p><b>11. The Emergent tension: political power over the university system</b></p> <p>The tension regarding the duration of the political term. The four-year-period of members of the Finnish Parliament was perceived as problematic concerning the long-term nature of universities'</p>	<p>If the interviewee mentioned the duration of political term as a problematic aspect concerning the university system.</p>

Table 2 Clarification of how the social, economic, socio-economic and emergent tensions were categorized as tensions

### 3.5 Evaluation of the research process & ethical considerations

Since this study leans strongly on previous literature on social and economic tensions in higher education, there is a possibility that all of the emergent tensions were not detected. Since there were several tensions to be studied, the interviews were structured, and even I was listening actively and tried to be attentive in order to give the interviewees room for picking up new perspectives, the questions direct the conversation strongly. Two extra tensions

emerged from the interviews, but one can ponder what kind of topics would have been discussed, if there had been freedom of speech regarding the tensions. The interview questions, which were structured around the tensions, helped the coding process, but also directed the study strongly to the direction of the initial theoretical framework.

One challenge during the analysis phase was interpreting the data. Officials and university leaders used different terms of the topics. Also, the grasp of the individual perception was hard, because there were less direct comments of the tensions and more long descriptive anecdotes and indirect wordings of their thoughts. When coding the data, it was difficult to really know whether a person was strongly opinionated or just acknowledged the tension, in other words, what was the perception of the tension? It was also then challenging to summarize the unclear individual perceptions of the tensions into organizational points of views. This is why I highlight that I have been an active interpreter of the data. I realize that my observations and understandings of the topics discussed are reflected throughout this thesis making this study my interpretation of the perceptions of the interviewees.

One consideration I found from my transcription analysis notes was that I should take into account the level of the respect and even admiration I have towards my interviewees. It was an honor to take time of so many senior leaders and officials, who have a very challenging job and lot of responsibility to carry and I enjoyed the interviews a lot. This is why I acknowledged that I am prone on perceiving the positive sides of the interviews and focused on producing as critical and relevant analysis as possible.

Other consideration I have is that I am a master's student studying sustainability, strongly advocating sustainability. I see changes towards more sustainable ways of living as something crucial for the future of mankind. This makes me biased in a way that I might naturally seek to see pro-sustainability attitudes in people and phenomena. I had paid attention to this throughout the research process. During this study, I was working in a science communications agency and thus seeing the universities from both perspectives: inside as a student and outside as a consultant. My professional background has made me prone on over-valuing the role and meaning of science and higher education over other institutions. I am also part of community, where urban culture and higher education is highly respected and in which appreciation for subcultures is high. I see subcultures as a natural way of making

meaning to life and finding and sharing meanings with people. This perspective makes me prone on highlighting the individual experience over the collective.

## 4. Findings and Discussion

In this chapter will illustrate the research insights I gained of the social and economic sustainability tensions of the Finnish university system. I will present the different organizational points of views through the individual perspectives of the interviewees and compare the three organizations, the two universities and the Ministry of Education and Culture, to each other as well as to the scholarly discussions presented in the literary review. Finally, I will apply the insights gained on the sustainability tensions on the integrative framework by Hahn et al. (2015) in order to form a systemic view of the sustainability tensions.

I have structured this chapter according to the nine sustainability tensions presented in the summary of the theoretical framework and in addition two emergent sustainability tensions found in the interviews. The outputs of this chapter are the answers to three of my sub-questions:

- Q2: How are the social and economic sustainability tensions of the Finnish university system perceived by the two university managements?
- Q3: How are the social and economic sustainability tensions of the Finnish university system perceived by the senior officials in the Ministry of Education and Culture?
- Q4: How do the perceptions of the sustainability tensions of the Finnish university system differ between the managements of two universities and senior officials in the Ministry of Education and Culture and the tensions of the scholarly discussion?

### 4.1 Academic capitalization is the new normal

As a repetition the tension, entrepreneurial university refers to the tension between universities' pressures for entrepreneurial activities such as accumulating resources, acting in a more agile manner and teaching entrepreneurial mindset and skills at the same time, when carrying out long-term strategy in research and education activities and following the traditional research methods of scientific research.

Slaughter and Leslie (1997) created the concept of entrepreneurial university in order to define the process of implementing market-oriented approaches and corporate models as

governance in higher education, and by 'corporate model' meaning models, which turn the processes and structure of universities alike of corporations. According to Mok and Welch (2003, pp.12–15) entrepreneurial universities are defined by organizational structuring and functioning, which are subordinate to the belief that education should serve economic purposes. The critical scholarly perspective of e.g. Krejsler (2006) and Wedlin (2008) concern the national pressures focusing on the university system and the direction market pressures are guiding research. Also the question of university autonomy is closely linked to the discussion of entrepreneurial university. All in all, the scholarly discussion on the entrepreneurial university is critical and regards the new entrepreneurial modus operandi of universities recognizing pressures from the nation states, global institutions (e.g. OECD, World Bank) and companies directing the change of operating.

It was rare that the interviewees would have defined 'entrepreneurial university' like the majority of the scholars and the parents of the concept Slaughter and Leslie (1997), as entrepreneurial agency of the university organization. For most of the interviewees, entrepreneurial university meant a university, which provides its' students, staff and other stakeholders with an entrepreneurial mindset. This mindset was described as providing students with an extensive skillset, learning to take responsibility of ones' future. In other words, most of the interviewees perceived the definition as linked to entrepreneurial activities that the university tries to foster similarly like scholars Rothaermel et al. (2007).

Economic and research purposes were not seen as contradictory by the interviewees. Based on the interviews, the development of academic capitalization, the concept by Mok & Welch, (2003) has reached the point, where the commercial natures of research and education are self-evident for the academic leaders and high-ranking ministry officials. None of the interviewees saw a discord between university's mission and market-based world, though some of the interviewees admitted that the matter is not black and white. University institution was seen as a part of society and thus interlinked with the development of the market economy of today.

Critical perspectives on universities' entrepreneurial agency were almost absent in the interviews except, when discussing the change of the academic work from the perspective of an individual researcher. *"I don't know which kind of world that would be where, university had it easy. University's task is difficult"*, one of the university leaders (Capital region

university) said and described university as an institution, which has always been a community for talented people and highlighted that each time provides its' own challenges. This rector thought that in our time the challenge is the speeding tempo of our lives, and that it is hard to really stop and think what to do next. The interviewee saw the situation with research funding as tricky, but did not think that it's a fault of the current societal system. Rector from the Northern region university reminded that in the world we live in, the fields of sciences, those researchers whose voices are being heard, is a question of values and that it is harder to measure and translate humanist and social sciences in commercial "innovation language". The interviewee told about Japan, where humanities have been run down extensively, partially because of the previous aspect.

A leader from the Capital region university thought that entrepreneurial agency could have negative effects, if the university has to put too much time in "inventing different things" and mentioned the extensive amount of work put on fundraising. This interviewee thought that these mentioned challenges could have also positive effects, if for an example researchers have to think about the benefits the research topics can provide for the society. The fear for loosing focus was presented also by another rector from the Capital region university, who reminded that one should be critical in analyzing the benefits of new business budding from the university, especially the one professors are in, "*since the core business of the university*" is education, research and societal impact

All in all the attitudes towards 'entrepreneurial' and 'entrepreneurship' were passionate, positive and even proud. Officials saw the role of entrepreneurship as important and needed on the strategy level, though it now is present varyingly. Entrepreneurial way of doing was seen as a must in the Northern university, where the leaders felt that already based on its' location as a school which fosters entrepreneurial skills. Leaders from both of the universities told how university strives to teach young people to take responsibility of them selves so that they can do what really like in life.

Ministry officials did not feel sorry for universities having to put with it in the middle of the pressures of the nations' competition with knowledge (Deem et al., 2008), although one official saw that there is a negative connotation to the definition 'entrepreneurial university' raised the question of how much the increasing entrepreneurial intentions for the sake of lack

of jobs and regarded the phenomenon of entrepreneurship critically as a virtue born out of compulsion.

The difference between the ministry and the university perspectives was not strongly visible in the definitions or comments about the entrepreneurial university. One difference was the entrepreneurial tones the university leaders had in their comments. University leaders' perspectives reflected the concept of entrepreneurial university in the sense that their attitudes towards universities and working as leader were entrepreneurial. Some comments were made of the ministry's budget cuts in the sense that it might have even revived the university sector in Finland. The collaboration with the private and third sector was seen as elements enriching the research work and one rector doubted that basic research could exist without company collaboration. The university leaders' attitudes were a lot akin to Clark (1998), who sees entrepreneurial university as empowering mean to transform and strengthen university collegiality autonomy and educational achievements.

There was a slight difference between the perspectives of the Northern University and the one located in the Capital region. The possibly harmful national competition was mentioned in the Northern region university to a different extent than in the Capital region. Also, the Capital region university had more critical comments regarding entrepreneurship, although it was seen as a positive matter in general.

#### **4.2 Times are pressured regarding societal impact – and it is easy**

By the tension of societal impact and interaction I refer to the increasing demands for societal impact and interaction focused on universities at the same time, when the system lacks information of the requirements, means and ways to put it into practice as well as has poor parameters for measuring it.

Definitions for societal impact and interaction were as diverse as were the ones in scholarly discussions (Nieminen, 2004; Lyytinen et al., 2015; Heikkilä and Jokinen, 2015; Mustajoki, 2017; Mönkkönen and Neuvonen, 2018). The theme of societal impact was strongly present in the interviews and appeared many times as the reason for profiling measures. In the interviews of the ministry officials, it came clear that even the Finnish ministry sector uses different definitions for the societal impact of universities. For an

example the Ministry of Social and Health Issues sees impact mainly as company collaboration and on the other hand, the Ministry of Education identifies impact as the graduated students, who participate in the work-life. Also, the interviewees from both of the two universities considered “*educating the future workforce*” and “*graduates moving to the labor market*” as the biggest societal impact of Finnish universities. This differs from the traditional academic perspective, where high quality research is seen as the most impactful function of the university sector and researchers (Niiniluoto, 2015; Mustajoki, 2017). It was noteworthy that also the university leaders, who many possess more or less extensive background in research, perceived education as the most impactful university function.

In addition to educating future workforce, ministry officials described forms of societal impact as broad and active collaboration with the surrounding society, production of research-based knowledge and company collaboration. This is somewhat aligned with the diverse scholarly definitions of societal impact by Lyytinen et al., 2015, Kuitunen & Hyytinen, 2004 and Ritsilä, 2013, but even more aligned with the characteristics of societal interaction Molas-Gallart et al., 2002, Nieminen, 2004, Niiniluoto, 2015; Lyytinen et al., 2015 and Mönkkönen and Neuvonen, 2018, who state that societal interaction is part of education and research missions and as a guiding principle steering economic, social and cultural relevance and applicability, not a task of its own. Ministry officials mentioned the status of law and the fact that universities are wanted to different parts of Finland as a good example of the strong societal interaction. Societal interaction was identified to be taken into account in universities’ strategies, though the depth was said to be varying, and one of the officials recognized a visible change in the *modus operandi* of universities, which one can detect from the external communication of universities.

The description of societal interaction by the all of the university leaders was sprawling, full of case examples of joint-projects or well-succeeded spin-offs. Interaction was described as dialogue, joint-projects with other public, private or third sector organizations, as networks and active work consisting of small actions deriving from the strategy. Their comments were aligned with the cyclical way of seeing societal interaction as complex, reciprocal interaction processes and exchange of know-how (Gibbons et al., 1994, Ravetz, 2004; Nieminen, 2004, Molas-Gallart & Castro-Martínez, 2007, Geuna & Muscio, 2009, Jongbloed & Zomer, 2012, Lyytinen et al., 2015) and as an ecosystem, which can foster these processes through different



kinds of encounters: challenges, hackathons and events (Mönkkönen & Neuvonen 2018, p. 19).

Interviewees from the two universities had very similar definitions for societal interaction, but the concept got easily lost in the talk of impact. In the interview questions interaction was asked framing it as a task of its own (*11. How is societal interaction taken into account in the strategy of your university/Finnish universities?*) (Molas-Gallart et al., 2002, Lyytinen et al., 2015). Societal interaction was regarded as something that derives from research and could always be done better. The exact angle for societal interaction depended from the background of the university leader: if it was on research, the importance of the right focus areas was highlighted, if it was on the relations and collaboration the point of view was more holistic.

However, there was more discussion of the impact than interaction. The need to justify the use of public resources, to highlight the societal return on investment was strongly present in the comments of the university leaders and acknowledged by the ministry officials. There was no mention of the “new pact between society and higher education” nor of the “new social contract”, but the strengthened pressures and dilemmas were the same as the ones described by these scholars Gornitzka et al., 2007, Maassen, 2014, Miettinen et al., 2015, Pinheiro et al., 2014b, 2015b. Interviewees from the two universities talked about the pressures of justifying the research practices to taxpayers, especially in the case of social sciences and humanities. Interviewees from all three organizations recognized that the 10 years of economic turndown have provoked a conversation of whether universities should be able to feed innovation more strongly. The pressure was experienced as coming from the business sector, from the media and from some individual politicians as well. Some interviewees experienced that Finnish universities have pressures to achieve high results with ridiculously poor resources and some that the resources invested in R&D are great, but Finnish university sector is very dense. Other interviewees thought that the pressures Finnish universities encounter could be seen as a positive and even as an empowering thing. Minority of the university leaders possessed the latter point of view, but it existed in both universities, more in the Northern region university.

What was unexpected was the level of financial pressures as well as the financial responsibility university leaders felt focusing on the university sector. University leaders felt that Finnish economy needs universities and universities have a significant impact on the

Finnish economy. This came clear directly and implicitly, when the leaders told that company collaboration and regional joint-projects make a great impact nationally and on the area. They also told that universities are asked for help in business endeavors in order to accelerate business activities as well as social development. The following quote represents well the personal weigh of responsibility and societal impact, which was often repeated in the answers of the university leaders: *"Somebody sometimes asked that how do you measure your performance, so I said that I can see it from the Finnish gross domestic product."*

Also the officials experienced the strong pressures focusing on universities and saw the strengthening *"societal duty of accountability"* focusing on the universities from the citizens and from the business sector. The accelerating pace for the demand of the research results was mentioned as was the demand of the stakeholders of the knowledge society (Jongbloed et al., 2008; Pinheiro et al., 2014a, 2015a) The touch and feel of Finnish impact society, used by Alastalo, Kunelius and Muhonen and Muhonen & Puuska (2014), was present in the interviews of the ministry officials.

What was surprising was, that although the lack of resources and the pressure for impact was perceived strongly by majority of the interviewees, when asked if societal interaction is hard for universities, majority thought it is easy or very easy. Naturally, societal interaction does not mean impact and thus have the same pressure linked to it, but since the concepts are close to each other this raised my attention. The reason for the experienced ease was the small area and population of Finland low hierarchies and clear structures possessing public sector. According to one interviewee one can reach a holistic view on the collaboration projects, because of the well-functioning collaboration with different public sector departments.

Two leaders in the Northern region university were more reserved to hype the easiness of societal interaction, though they thought that it is somewhat easy. The other university leader saw that societal interaction is easy in the near areas of the university, but not necessarily in the other parts of Finland: *"it is related to behavior around the campfire that the near-coming idea always feels more familiar than the one coming from afar. And then if we think about the well-being of Finland as a whole, we should overcome this. And maybe the idea behind this profiling is a bit of this."* This university leader was even frustrated for the unused potential, which Finnish university sector leaves unused: *"In the Netherlands people have been*

*obligated to build dams together – it doesn't work if people are thinking 'okay the hole is on your side'. This thinking should be switched on in Finland."*

The paradigm shift of societal interaction caused by technological development (Mönkkönen and Neuvonen, 2018), the shift towards co-creational research methods or extended academic community was not mentioned in the discussions by the interviewees (Gibbons et al., 1994; Ravetz, 2004; Niiniluoto, 2015), which was surprising considering the attention this dimension has raised in the scholarly discussion of societal impact and interaction.

To conclude, educational agency was seen as the most impactful function of the university by all of the organizations. There were no clear definitions for the concepts of societal interaction and impact likewise in the literature, and the concepts were used as synonyms in the interviews. Lack of resources and the public nature of university funding were highlighted in the impact discussion as well as universities responsibility of the national economy. At the same time societal interaction was experienced easy for Finnish universities. Northern regional university did not experience the interaction as easy as the Capital region university, because of the distances and national spirit, which was perceived as competitive.

### **4.3 The many faces of academic freedom and autonomy**

The tension of academic freedom and autonomy refers to the tension between autonomy of universities enacted in the Universities Act (Ministry of Education and Culture, 558/2009, 2 §) and freedom of research, and the strong steering position of the Ministry of Education and Culture in Finland in the university system.

Scholars Aarrevaara & Hölttä, 2008, Pinheiro et al. 2014 and Tirronen, 2015 discuss the dominant role of state in the Finnish higher education system and highlight that the relationship of the state and universities is similar to ownership steering. The actual increase of autonomy is considered modest and moreover as financial and administrative autonomy by Aarrevaara et al. (2009) and Pinheiro et al., (2014), since the public accountability ensured that Finnish universities continued to respond to the 'public agenda'. Also the responsibility to perform quality assurance became a new requirement after the law reform alongside the main means of state control the regulation and budgetary control (Pinheiro et al., 2014, pp. 5).

The strong role of the state in the university system was recognized in the interviews of all three organizations. It was no surprise that most of the university leaders, although satisfied with the freedom Universities Act has provided in terms of budgeting and operational decisions, thought that universities could be even more autonomous. Still, university leaders were somewhat neutral of the ministry's steering position. Some leaders even suggested different measures in order to strengthen the steering, since the decisions made regarding the profiling measures were seen as ambiguous and not giving information of the future vision of the higher education system (see section 4.10 about the emergent regional political tension).

Neither surprising was the fact that the officials perceived the level of autonomy of Finnish universities as high. One of the officials told not to be able to imagine how universities could be even more autonomous. One official told that there is disappointment on the matter that the private sector has not started to fund universities more extensively. The success Finnish universities had obtained in international autonomy rankings like the Times Higher Education's comparison of autonomy, was used as an evidence of high autonomy level of the Finnish universities by another official.

The contradictive comments concerning the academic freedom and powers restricting or driving it came from all of the three organizations and were interesting. University leaders had no criticism towards market forces restricting the freedom of research, which could have been presented considering the scholarly discussion of global competition in higher education by e.g. Slaughter & Leslie (1997), marketization and academic capitalization by Mok & Welch (2003), Wedlin, (2008) and Aula (2015), where markets and business sector are seen as a force directing research topics. University leaders mentioned company collaboration as one of the stakeholders, which has an impact on the operations, but did not see markets as a threat or an outside force having too much power over research and neither did the ministry officials. One of the ministry officials admitted that on the global level the situation can be different, since there provided education is responding to the market demands on a greater level. This official said that the current national education, which leads to degrees and research, takes into account more aspects than just the current needs. The officials referred many times to the problematic nature of directing research fields and the element of predicting the future, since universities and science operate and produce results in the long-term time frame.

According to the comment from one of the officials, the Ministry of Education and Culture sees that the Finnish university sector is more outside of the market-demand on a global scale, since the main financier is the state and the focus areas of education and research are planned regarding long-term objectives. In the other hand, the objective of the Universities Act was to enable diversify universities' funding base, which refers to company collaboration and joint projects (Ministry of Education and Culture, 2016, p. 15). One of the university leaders from the Northern region university told to be experiencing less autonomy, when the organization has to acquire funding from the outside sources. This interviewee said to prefer that there wouldn't so much acquiring of funding but more endurance. The interviewee said to understand that "*this is the point we are in now and it is hard to get away from here*". The definition of university autonomy and its' relation to the steering role of the ministry and the market powers seemed to be in process.

On the individual level of academic freedom, the interviewees reflected the results of profiling measures from the perspective of an individual researcher. The general point of view was that the experienced academic freedom might feel restricted, especially for the generation used to the "*old way*" the time before the Universities Act. Many interviewees said that university profiling is not in contradiction with academic freedom, when talking of the fields included to the profiling area. It was also said that both universities recruit researchers from their focus points of research. After being recruited the researcher can study whatever she or he wishes. The interviews painted images of "*old freedom of research*", which gave total freedom for the researchers and, which leaders felt exploited and "*new type freedom of research*" which allows researchers to study whatever as long as it is inside the strategic profile.

To conclude, there seems to be several definitions for autonomy of universities and freedom of research. The tension deriving from the steering role of the state and seemingly autonomous role of the state is evident (Pinheiro et al., 2014). Besides the tension, the different definitions for autonomy and academic freedom make the situation messier. The steering role of the markets is neither fully identified by the state nor by the universities.

#### **4.4 Academic work is changing and the pain remains on the individual level**

By the tension of academic work and profession, I refer to the increasing pressures focused on researchers in the new administrative and managerial areas at the same time with increased accountability and communication requirements.

The ongoing change in the fields of academic work was recognized by all of the interviewees, but the perspective varied. Interviewees from the two universities described the change from the perspective of an individual researcher. The change was described as an intensifying competition, stronger result-orientation and measuring, raised ambition level, growing focus on the quality of research, more strategic approach no management, growing internationalization, growing focus on rankings and an overall faster phase of working.

In the interviews of the ministry officials raised themes concerning the personnel policy of university and the unemployment rate of PhDs in Finland. Two of the officials had more institutional perspective to the change of academic work. They acknowledged the individual researcher perspective through the unemployment rates and uncertainty in the contracts of employment, but did not discuss of the unjust working conditions of Finnish academics (Aarrevaara, 2017, Pinheiro, 2014), the growing pressures or the third space inside the academic profession (Withchurch, 2012). Only one official was very familiar with the discussion of the changing academic work and the new kinds of demands focused towards individual researchers. The institutional macro perspective was also general in the university interviews. The interviewees named the change and listed similar elements like Pinheiro (2014) or Aarrevaara (2017), but the tone of the comments was neutral. The pain and anxiety familiar from some of the scholars discussing the topic was far from the comments pondering the changing academia.

The pressure and demand for societal impact was mentioned repeatedly as the major factor, which has changed in the expectations towards researchers. One of the officials experienced the value-base of research as the underbelly of the researchers, which they feel protective of. The official said that the growing expectations towards the impact of research are a new factor shaking the old traditions of academic work. The applicability of the research work was raised as “*the only real change inside academia*”, since scientific excellency and pressures for internationalization are not new demands on the academic world. The Universities Act was

referred in this conversation as an assisting factor to the change concerning the impact of the research.

The Unemployment of PhDs was a common topic on the comments regarding the change of academic work. Something that repeated in the interviews was experiencing that the Finnish industry does not understand the potential of doctors. The work-life abilities generated in the universities, was discussed and in the comments regarding the entrepreneurial university, imprinting the “*entrepreneurial mindset*” on young people and entrepreneurial mentality was presented as the potential savior of the academia by the university leaders. The statistic of only 10% of the PhDs being able to stay in the academic career, was mentioned by the interviewees from both of the universities as was in by the ministry officials. The university leaders and officials from the ministry experienced a great worry over the future of the researchers-to-be.

In the interviews of both universities the leaders said that the researchers’ management demands are increasing and these demands are taken into account on the strategy level, or in the Northern region university in the operational plans. An interesting aspect was that the academic leaders had similar comments on the researcher type professional profile, which is contested by the demands of interacting, teaching and managing teams. One of the interviewees described the change of demands like this: “*Usually people who seek to careers in science do so in order to not become a leader, moreover namely because they do not want to become leaders.*”

To conclude, the academic leaders of the two universities and the officials of the Ministry of Education and Culture recognized the change of academic work. The perspective of the interviewees was mostly focused on the macro level, especially in the ministry. The university leaders recognized the individual perspective of the researchers, whose work demands, processes and culture are in change. The tones and attitudes towards this change were far more positive or neutral than those of the scholars discussing the phenomenon and studying the change processes.

#### **4.5 University institution cannot be overthrown**

The tension of the future university describes the tension between changing ways of knowledge production (e.g. shift to Mode 2, post-academic and post-normal science) and intensifying need for knowledge e.g. for global crisis management, sustainable development goals and the research and development of the businesses. The hegemony of Western science has become increasingly established with university rankings and assessments at the same time companies have started to develop education services and products utilizing new technologies.

All of the leaders and officials I interviewed were unanimous that university institution is needed in the future. The strong, almost religious belief in the future of the university institution lived strong among the interviewees. The justification repeated in the comments regarding to this future, was the increasingly growing role of knowledge and information, the post-factual era and rising populism. The long centennial tradition was stressed as well as the nature of science: teaching people how to learn to learn, which was presented as the differentiating factor compared to vocational studies. The production of scientifically valid information, theories and point of views for people to understand the world we live in was highlighted as an important task and the *raison d'être* of universities.

In the discussion of the future of the university institution, the knowledge-intensive world (Burbules and Torres, 2000; Mok and Welch, 2003; Deem et al., 2008) was the most underlined megatrend emphasized by the interviewees. The university institution was presented more as a passive change agent, rather than an active change-maker, although impact was expected from universities. The global economy was presented as the driver of the university institution's winning streak and the old traditions as the competitive advantage of the institution. In the comments of the interviewees, the goal of this long aged tradition was to be an impactful university in the future.

The comments regarding societal impact could be seen as aligned with the Mode 2 type of research talked by Gibbons et al. (1994), where the lines are blurring between different sectors and fields, especially public and private sector. But in the other hand, nobody of the interviewees referred to the change in the knowledge making process itself, which is the other definition of the Mode 2 type of research (ibid.). Gibbons et al. (1994) depict the research of



the future as process, where knowledge creation has shifted towards interdisciplinary research with emphasis on problem solving, and where big role is given to the communities outside academia. The interviewees thought that that university has to be resilient, live in time and change according to its' environment, but the other way around of changing, the new kind of knowledge creation needed alongside the more traditional disciplinary framework (Gibbons et al.; 1994; Ziman; 1996; Ravetz; 2004) wasn't mentioned. Interdisciplinary research, working with different stakeholders and the problem solving approach was mentioned in the context of societal impact and interaction.

The rivals of the university institution presented by the interviewees were educational products made by technology and consultancy companies and MOOCs. The future ways of working and studying were guessed as hackathons and voluntary work. These concepts have features of the communal knowledge-making process and learning outside the traditional academic or professional community, but science making was not mentioned in this context.

If zooming inside the university institution, the possible features of the future mentioned by the interviewees were changes deriving from technological development. Two university leaders thought that, since the technology innovation cycle grows shorter and the needs of the companies are changing fast, new type of on-demand education is needed. Also the time of studying per degree was predicted to shorten, because of the growing availability of the information. One university leader predicted there to be more niche needs, which the competitors of universities will most likely offer education on, so that people can keep up with the fast changing trends.

Asian universities were mentioned in all of the three organizations numerous times, in the context of the future of the university institution theme. The comments were toned with a mix of admiration and slight fear showing painting the Asian universities as the ideal, living reminder of the value of higher education provides to a nation, and as a validation that the national extra resources are invested to research and education still in the 21th Century. Seems like the quest for the world-class universities predominately defined by the Anglo-Saxon world (Deem et al., 2008), could be won by the Asia axel at least based on the interviews of this study. It seems that the once hegemonic American domination in higher education is contested by the Asian universities playing by the same rules and possessing the

same goals and advantages the American domination was once created with (Mok, 2006; Deem et al, 2008).

The mentality, where the university system is seen as the national weapon and competitive advantage of the state (Deem et al., 2008; Wedlin, 2008) was reflected in the comments. Many said that university plays a big role, like said in fueling of the economy, as a securer of the nation and that the education is only future hope of the country, since "*education is the only thing Finland has*". University institution was also seen as a state's instrument in defining the Finnish national identity, what is being Finnish, what is Finland, what is being European and also what is the global position of Finland.

The time before Universities Act was described as "the safe haven" by one of the officials and told that university institution has to open up even more to the society, shake off all the remaining features of the time before Universities Act and be in even closer cooperation with other parts of society. Like said previously, societal impact was a definite goal according to the interviewees. The goal of opening of the university institution and the new ways of interacting and creating societal impact in the comparison of the old, slowly changing traditions presented as the competitive advantage of the university institution are in discord with each other. Certainly these aspects are incomparable, but they represent quite opposite directions wished from the university institution.

One of the justifications presented many times in the scholarly discussions, when predicting the longevity of the university institution, was the climate change or other planetary boundaries being met and seeing science as a one of the ways to slow down the progress of global warming. This discourse and point of view was used and mentioned by only one of the interviewees. The motivations behind research are always individual and personal. Still I saw the rarity of the dominant discourse in the interviews as noteworthy.

#### **4.6 More trust and acknowledging quality wanted into the discussion of the public finances**

The tension of the pressures on the 'public purse' refers to today's circumstances the Finnish universities face regarding financial resources. After the economic turnaround, public sector's financial resources have been in decline. Universities' public funding was cut in 2015, tuition

fees as well as other possibilities for funding the university sector, are considered by the government.

The pressures on the public purse (Pinheiro et al., 2014a) were something that all, the officials and the university leaders recognized as present. When asked about pressures universities face in general, the use of public financial resources was mentioned by all of the officials. Scarce resources were presented as the root cause for phenomena e.g. for the increasing competition and thus for the change in academic work and of the drivers of societal impact. According to several university leaders, Finnish universities face pressures in achieving high results with ridiculous resources. This "*distribution of scarcity*" was presented as an obstacle for better performance also in the comments regarding societal impact and interaction. The Asian and US universities popped more than two times in the answers of the university leaders, when discussing resources. The increasing global competition (Slaughter & Leslie 1997; Mok & Welch 2003; Wedlin, 2008; Aula, 201) with the new raising Asian universities and US top universities with large alumni donor pool were perceived as hard to keep up with: "*There is a huge increase in competition between universities because of the big investments in Asia. There are tremendous resources being invested and keeping it up with the race one has to run hard to even stay where one is*" said a leader from the Capital region university.

Ministry's financing model regarding universities was discussed in the interviews. There were differences in the comments between different officials about the clarity of the funding model and how clearly it was and is communicated to the universities. Two of the officials thought that the freedom of budgeting is not as clear as it could be for the universities and this was mentioned as an example of an unclear model by two of the officials. Only one of the officials thought that the funding model is clear and that the quality and quantity indicators are in balance. The other two officials were very or somewhat skeptical about the clarity of the model and its' complexity level and saw places for improvement. All of the officials saw the model as dynamic, something that have evolved and will evolve over time.

All of the university leaders found areas of development in the ministry's financing model. The most often mentioned place for improvement was the measuring of quality, which appeared in the answers of the two officials as well. According to interviewees, measuring quality of different fields of sciences with the same indicators is problematic, since the numbers of publications vary according to the field of research: "*You get what you measure*

*and thus measuring is a terribly responsible activity"*. Some development was recognized on this aspect and interviewees from universities were glad, since indicators had changed from the former goal-based indicators to result-based, which steer for high quality research. All in all, university leaders hoped for less swings and changes in the indicators and wished for predictability. Due to the nature of research and universities' actions, which bear fruit after tenths of years. "*Fast changes are poison for the university*" as one of leaders said.

Measuring of societal impact was mentioned as a point of development by interviewees from all three organizations. Two of the ministry officials highlighted that especially the quality of education correlates with the number of graduating students and that there is a lot of evidence that in the units where the research activity is vibrant, the quality of the lessons is good as well. The need for further evaluation of educational quality was recognized and told to be in the ministry's plans for the future. University leaders had similar point of views regarding the measuring of educational quality and they added that employment tracking not taking into account alumna, who are employed abroad or and the cyclical nature of certain industries deriving from the state of the global economy. One university leader raised the societal dimension of different fields and themes of research and education: "*it (the ministry's financing model) doesn't steer to educate to the fields which have demand, but rewards for all the fields*" The model does not reward of projects focusing on fields societal challenges, or national strengths, lacking the steering element.

Third place of development mentioned by all of the organizations was the efficiency of the evaluation process itself. The model's way of measuring quality and quantity was criticized as dysfunctional and inefficient. According to one official there are too many panels measuring quality of research for different fields, which is costly and labor intensive compared to the allocated amount of funding. Other reason for opposing was that the top researchers feel that the funding granted based on their work should belong to them. University leaders thought that the assessment committee can be tricked and this doesn't encourage doing the best research.

Lack of trust in the process was a surprising finding and present to some extent in both of the universities. In the Northern region university there was hope for more transparency and symmetrical information regarding the processes of the ministry and Academy of Finland was presented. According to one university leader, afterwards the profiling project application

periods, it seems that others have had some more information of criteria, processes and achievements than others. *"Sometimes, in the dark of the night, I have thought that good strategic money would also be trusting in universities. Not like that every measure we are going to do in the next 4 years is written on paper and competed with, but that universities could also react more easily to the changing situation"*. Also the Capital region university expressed mistrust in the process reminding that some universities plan its' functions to a harmful extent so that the only goal and motivation behind the form of the degree structures are the study credits. This interviewee suggested that e.g. the years' credit quota could be changed every year between 50 and 60 credits and thus it would direct universities focusing on other things than optimizing with the study credits. These findings memorized me with the scholarly discussion (Gornitzka et al., 2004) of trust and the contractual relationships between HEIs and the state. The scholars said that trust is the most desired, when there is a lack of it, which is the case with the two interviewees (ibid.).

Tuition fees, diversification of the funding base of universities and possible privatizing of universities were discussed in the interviews. University leaders were negative or critical towards introducing tuition fees to the Finnish university students. The leaders supported free education, which is paid with taxes and results stability and equality of the Finnish society, quite unanimously. It was seen important that peoples' education level does not rest upon the education level of the parents or the location of birth. Many interviewees feared that tuition fees would cost the foreign students and decrease the equality of the Finnish society. Many interviewees saw university institution as a major stabilizing factor of the Finnish society. Two university leaders thought that a small sum of symbolical tuition fee could remind students of the price their education costs for the nation and ad motivation and appreciation of the students towards their studies. The officials shared similar thoughts regarding tuition fees. One official presented a wish that the discussion around tuition fees would be more sensible, since the topic is not as black and white as people are used to. The official referred to Latvian case where during the financial crisis university budgets were cut and the management set tuition fees being happy that some income was flowing in. This official reminded that one source funding system is more risky than diverse funding base in case of financial crisis.

From the officials' point of view it seemed like universities are not so eager to accumulate the resources from external parties, since the funders of the university sector have remained

roughly the same after the Universities Act law reform. According to the officials privatizing of the universities does not seem realistic due to the lack of business logic universities have, which the lack of external funding shows. One official commented that if it is to be fixed, ministry could consider changing the dual model. Many university leaders saw the private model as unrealistic and painful option and something that would require either huge numbers of external funding e.g. alumni donors or private investors, or tuition fees. The demands of the possible private investor worried to intervene to university's preferred level of autonomy.

#### **4.7 State is the client and universities its' subordinates**

The tension of the state's role in the university system refers to the tension between the state wanting universities to be more economically autonomous and still possessing the need to govern the higher education system with a unified strategy (Pineiro et al., 2015).

The tension was validated by the interviews. The role of the Ministry of Education was seen as the financier and a facilitator of the dialogue between the universities, and emphasized as important by the university leaders and the ministry officials. The two parties, ministry and universities, had somewhat different understanding of the state of the dialogue between universities and ministry. On the ministry's side, there were more beliefs of the good state of the university system, that the system is "breathing nicely" and that the dialogue is fostered well among the stakeholders of the system. However on the ministry's side, there were also more critical tones of voices thinking that the balance between the responsibilities of the ministry and universities could be developed further. The point of view of the universities' leaders was neutral or critical towards the facilitation of the dialogue. The Ministry of Education and Culture was hoped to facilitate the discussion on the profiling more strongly and make decisions, if incentives did not e.g. facilitate change processes enough (see the section 4.8 regarding profiling and structural development").

One interesting aspect concerning the steering was that the managers of the two universities saw ministry's role as a director of the university system, as a very positive thing. When the ideal role of the state was discussed, all of the university leaders thought that the ideal role of the state would be to finance the university sector. The opinions on steering varied. Some of the interviewees called for less steering and two called for stronger leadership of the dialogue between the universities. Some of the interviewees from the universities had a customer

perspective on the role of the state meaning that, since state is the financier of the university sector, the universities should in return provide performance for the state. There were even nationalistic tones, when many of the interviewees thought that Finland should connect the university system more strongly to the political agendas and development directions of the state (e.g. strategic funding).

In the context of the triple-helix model (Etzkowitz and Leydesdorff (2000, pp. 111–112), a model which describes the relationship of state and academia and industry, the Finnish university system could be described as an intermediate between the triple helix number 2 and number 3, based on the interviews of this study. In the model number 2 the institutional domains have strong borders dividing them and highly circumscribed relations, when in the triple-helix model number 3 have overlapping institutional spheres, with each sector taking the role of the other and hybrid organizations emerge at the interfaces of these sectors. The interviewees from the ministry and universities strive for dialogue and profiling the universities, but the criticism towards the ministry's actions in the facilitation of the dialogue and the wish for the directing from the ministry appoint that firstly, the state is more dominant sector than the academia, in the Finnish triple helix. In addition, if regarding the industry dimension, it is acknowledged as an important party, even in the process of making fundamental research e.g. when recognizing new areas of research. Still the presence in the national profiling and higher education dialogue does not seem strong, based on the interviews of this study.

#### **4.8 Is the university network under resourced or too dense?**

By the tension of 'structural development of universities and university profiling' I refer to the tension between the national goal of wanting world-class universities and the regional policy of Finland, at the same time with the ambition of keeping the whole country inhabited during the situation of scarce public resources.

The economic dimension was strongly represented, when discussing structural development of universities. The ministry officials saw university profiling as it is stated in the ministry's reports, as economically sustainable and strongly linked to strengthening the university profiles globally and thus facilitating acquiring of funding from external sources (Ministry of Education and Culture, 2016).

Majority of the university leaders acknowledged the need for structural development, because of the diminished resources, although the cuts made on higher education budgets were found unfortunate and in some cases, foolish. All of the interviewees from the Capital region university saw profiling as a strengthening aspect regarding the economic sustainability as well as the majority of the interviewees from the Northern region university. The general perspective towards profiling was positive from the university leaders. They thought that the malfunctioning units are sensible to move away to other universities and get room for strengthening the well functioning units, this way earning more from the national division of funding doing better in the international competition of research funding.

There was a difference how the competition of research funding and the division of the strategic focus areas were seen in the universities. In the Northern region university, profiling was seen as a positive thing in principle: *“As long as the incentive is problem solving not that, which university can scoop the biggest piece of the cake the society is giving out”*. Another university leader from the Northern region university thought that profiling is a problem, if it increases the competition inside Finland but doesn't encourage to competing together globally. This is much aligned with the scholarly discussion on the tension, which is created inside academic community with the competitive research funding instruments (Teichler and Höhle, 2013; Pinheiro et al., 2014a). Northern university leaders saw the tension in profiling in the location and in the lack of near-area research institutions in the area, based on which the profiling measures are partially evaluated. Also the contradictory nature of selecting scientific focus areas versus the education, which to some extent has to be offered based on the regional needs, was mentioned as a tensioned issue regarding profiling. In the Northern area profiling was seen also as a threat, since every ceased line of function was to be followed by a significant consequences in the near area. The new quotas for each second level degree was mentioned to tension the profiling measures, and made the university feel like *“put in a box”*. One of the university leaders from the Northern region university thought that the new funding system has even decreased the economic sustainability of universities. Since part of university funding is granted based on applications, it is harder to predict than before. Quick changes in the funding model harm the continuity of the university and increase the time spent on fundraising, which was seen as a somewhat negative and burdening task by both of the universities (Pinheiro et al., 2014b, p. 13).



The Capital region university did not possess this kind of a perspective on profiling. Two of the interviewees from the Capital region university mentioned that “*Finnish university sector is not under resourced but single Finnish universities are*” and that the Finnish higher education network is dense. One university leader thought that it is shortsighted to think university education and research as a near-area service. This was something mentioned by one of the ministry officials as well. Three out of four interviewees had comments sympathizing the management and organizations in the non-Capital regions and recognizing the resistance and resentment to close down research units. Still, it came clear from two interviews that the Capital area universities were seen in a in a different position by themselves, since the two universities are so big and cover so many fields of sciences supporting each other. Although the leaders from the Capital region were empathetic towards the other Finnish universities, their comments were more competitive concerning the profiling measures and other universities, when in turn the comments of the Northern region leaders were entrepreneurial and worrying about the regional development.

Interviewees from both universities agreed on that there are hardly any university with a tight profile in Finland and that the profiling measures have been rather small and universities still have a very broad number of fields of sciences. Leader from the Northern region university did not see this as a bad thing, since broadly represented basic research is fueling the profile "spears" of universities as well as innovation functions. This was also the stand of many Capital region university leaders as well as the scholars (Tirronen, 2015), who see the danger of strategic selection in the diminishing room for risk and serendipity for curiosity driven basic research.

The themes of regional politics and the fear of the short-term orientated political power over the university system were so strongly present among the university leaders that these themes became the two emergent tensions of this study. In short, the perspectives of the two universities regarding profiling and regional politics were opposite and the thoughts regarding the fear for shortsighted political decisions resulting from short political term were similar. The tensions are explicated in the section 4.10 regarding the emergent tensions.

In addition to the economic sustainability of the structural development, perceived social sustainability resulting the profiling measures was discussed. Ministry officials thought that profiling is not in contradiction with social sustainability, although it was admitted that it

might be perceived as such by individual researchers. Officials were content over the assessment results, which do not show any signs of the diminished experience of academic freedom. One ministry official mentioned that it is sometimes problematic, if universities have to drag along researchers, who do not belong in their profiles. The only threat mentioned in university profiling, if it is resulting pulling into silos.

Two the leaders from the Capital region university recognized a tiny contradiction between profiling measures and academic freedom. Leaders had slightly stricter tones than their colleagues in the Northern region university, when discussing the perceived diminishing of academic freedom. *“Those who are complaining the most of the decreasing autonomy are the ones with the poorest results”*, described the mentality of two leaders, who perceived that academic freedom has been exploited before. Similar attitudes appeared in the interviews of the Northern region university, though to a lesser extent.

Interviewees from all three organizations thought that the communications of the structural development process have been highlighting the negative sides such as the diminishing academic freedom and de-selections of fields of sciences. According to a leader from the Northern region university, structural development measures were received critically by the research community and though profiling has reached a broad acceptance among the Finnish universities, the older generation still struggles with the reformation (Mustajoki, 2017). The old way of doing, the culture of sharing resources evenly and full autonomy for researchers to do whatever is against the profiling and thus the younger generation understands profiling better than the older one. Leaders told that researchers have adjusted fairly well to the set focus areas like scholars had found out in the State of Science report and argued (Treuthardt & Nuutinen, 2012; Pinheiro et al., 2014, p. 13).

One of the ministry officials had a comment very much in line with scholars Torjesen et al. (2017, p. 74) regarding the attention, which in the cases of HE reformation processes is much often in the structures and resources instead of people and human resources. The official reminded that when leading a university one leads people and operations, not structures. According to the official, too much focus is put into the development of structures, and it is natural, that people are concerned of their future. This official also wondered the lack of handling of the operational structural issues in the Ministry’s higher education vision 20130 workshops: *“Like you know as a student of Aalto University, significant changes have been*

*made ever since (after the principal decision of fostering the structural development), but is that the right structural change, whether our energy is going to the right things when cut down the number of units without cutting the operations? I'm not saying that the operations should be cut, but that it should be considered more in the changes. And now we have the higher education 2030 vision work and, well a small surprise has been that, when there has been different kinds of hearings, so quite a little talk has been of the operational side."*

#### **4.9 Academic leadership – has university community distanced on the cost of efficiency?**

The tension of academic leadership and legitimacy of the management refers to the effects Universities Act law reform have had since it came into force in 2010 (Ministry of Education and Culture, 2016). According to the assessment of the reform (Ministry of Education and Culture, 2016) the centralization of authority has made decision-making more effective, but in the other hand, university community has at the same time diverged from decision-making (ibid, 77).

This tension was emerged clearly from interviews. The interviewees from the universities and the ministry agreed with Pinheiro et al. (2014, p. 6) that the rector's role has changed to resemble that of a CEO, since the Rector doesn't chair the University Board anymore, but instead is responsible for preparing proposals to the Board. The interviewees formed quite unanimous viewpoint that the efficiency and other perks of the formed professional management are a good thing and that the change of the legislation was needed. According to one the university leaders, during the last 5 years there has developed an understanding that university can and should be led. The interviewee justified the change with impact and said that management enables that the institution and the research and education, is seen and developed as a whole.

The ministry officials recognized the tension of the legitimacy of academic leadership more clearly than the interviewees from the two universities. The new law was recognized to be resulting more professional management, but at the same time diminishing the experience of inclusion in the university communities. One of the officials saw that ministry's communications concerning the law reform and what kind of management practices does the law call for, as insufficient. According to this official the difference in management practices

of a university responsible for its' economy compared to the old public office model, is significant and thus should have been communicated more clearly. One official presented the fact that the university management was not changed at the same time, when the Universities Act took effect, as reasoning for the decreased legitimacy of the management. One of the officials highlighted that university leaders are under pressure from two sides, since directions of how to steer the university are coming from the state's side and other, often opposite pressures from the university's side.

The level and depth of how the university management from both of the schools, recognized the tension in the university leadership varied. In the Northern region university, all recognized the discussion of the legitimacy of the leadership in the scientific community. In the Capital region university, the interviewees did not experience a diminished legitimacy of the leadership in the university community. One of the interviewees described the decision-making process as more legitimate now than before, because the university has a clear management chains illustrating responsibilities and roles. Other university leader agreed and justified the legitimacy as the more linear process of enjoying trust of the university community and processes to the situation vice-versa.

Legitimacy of the management is an ambiguous concept, or this can be concluded of the interviews, since one official thought that university management's legitimacy is enacted by law as well as did some of the university leaders. The distance between the assessment of the Universities Act or scholars Tapper and Palfreyman (2011), who said that academic community in Finland has not fully accepted the shift from collegial decision making to external stakeholders' enhanced role (Jongbloed et al., 2008; Pinheiro et al., 2014, p. 6) and the management of the Capital region university, saying that decision making in today's university is more legitimate than ever, was long. According to one interviewee from the Capital region university, the old collegial model was very different from the new one and had its' own upsides, but was significantly slower.

The comments on the legitimacy question varied, but what was able to be detected was the contrast between the results in the assessment of the Universities Act and the neutral or suspicious tone in some comments, especially in the Capital region university the experience of the new style university management was more positive thing to the interviewees of the

universities than the worry of the distanced university community and its' take on to the matter.

## **4.10 The emergent sustainability tensions**

### **4.10.1 Regional political tension**

Regional politics was a theme, which emerged in the interviews of each organization. Profiling and structural development, societal impact and interaction and pressure on the public purse, were the tensions, where regional political dimension was the most present. The emergent tension of regional politics refers to the tension between regions needs for talent and labor force, state's wishes for world-class universities and the Capital region universities' wishes for stricter profiling measures.

The regional dimension of the vision for the university system puzzled the university leaders. In the Northern university the need for vision was mentioned by two of the interviewees as well as in the Capital region university. The questions regarding the vision were: *is Finland is wanted to keep inhabited as a whole and if yes, how much we are willing to pay for it?* Especially the leaders from the Capital region university called after stricter decisions from the decision-makers and use of stick instead of carrot concerning the profiling measures: *"If we think about this structure, what we have in Finland, then no one has ever made any decisions. That is, the carrots have been used, but the stick was not used. That if you want to get a bit bigger changes in time then maybe the stick to some extent is needed, there"*

The lack of trust was a core element in the tension of regional politics. The university leaders of the Capital region speculated the link between country's politicians and decisions concerning higher education politics like adding the education of certain engineers to area where it was formerly cut based on structural development decisions. The Northern leaders in the other hand worried that universities of the Capital region gain more information of the future science political directions and thus can adjust their functions beforehand. Based on the interviews, both Northern and capital universities call out for stricter decisions regarding university profiling. Also the leaders are waiting to know what is the vision for Finnish higher education and is the dual model dividing universities and universities of applied sciences going to change.

A leader from the Capital region university saw that universities could profile more according to their regions industry structure and their operational environment, and young people could move after their studies and jobs. This way Finland would have stronger universities instead of universities trying to educate people in order to secure labor in all of the fields in the near area. The same topic from Northern angle was that, since migration flows are moving to South and West, it is very hard to attract graduated people move to Northern and Eastern areas. This was tried with poor results and thus this university leader in question saw that taking the regional development in count is necessary. According to one of the interviewees from Ministry higher education should be a local service, but then again science and higher education policies are not a separate policy areas: "*science policy is not a separate policy area - whether it is a good or bad thing, such as business, innovation and regional policy, and our ministry policies, they are inevitably interlinked.*"

#### **4.10.2 Political power over the university system**

The second emergent tension was the political power over the university system. This refers to the tension regarding the duration of the political term. The four-year-period of members of the Finnish Parliament was perceived as problematic concerning the long-term nature of universities.

When discussing the tensions of structural development and university funding, both universities had comments regarding the problem of the short political term compared to the long-term planning that university sector is obligated to practice due to the nature of science. University leaders reminded that bad short-term decisions can crash the whole university system and gave the long-term strategy of Asian higher education sector, especially the Chinese university sector, as an example of the global competition universities face. The four-year period of the current Finnish political term was considered short and not possessing incentives for politicians to aim for decisions pursuing strategically long-term societal benefits. This worried the university leaders and ministry officials.

Many interviewees, especially from the two universities called for less power to the politicians. The slow or nonexistent decisions regarding structural development was

mentioned in this context as well as the financing model and its' indicators. According to the interviewees the steering mechanism should not be so bound to the political steering. Less steering was called for by many of the interviewees as well. Autonomy was justified with the examples from the US universities, which are autonomous and trusted by its funders to know which works.

Political steering worried especially the Capital region university leaders in the case of regional development. A worry that the national politics and personal interest of country's top politicians are strongly present on the profiling measures was argued by two of the interviewees from the Capital region university.

#### **4.11 The Sustainability tensions applied on the integrative framework**

Next the sustainability tensions and the results of this thesis are summarized. This section explains the way of applying the integrative framework by Hahn et al. (2015) on this thesis. The sub-questions Q2, Q3 and Q4 are answered in this section, the social and economic sustainability tensions are presented in Table 2 and the findings of the study are illustrated in the further developed integrative framework in Figure 8.

##### **4.11.1. Applying the social and economic tensions on the integrative framework**

In order to draw a clear picture of the application of the integrative framework and later of the social and economic sustainability tensions in the university system, the three

##### **Levels**

The integrative framework aims to recognize sustainability tensions, which are in many cases born out of the conflict of values and objectives between different levels: individual, organizational and systemic. According to Hahn et al. (2015, 302) sustainability tensions emerge from the embeddedness of individual and corporate (here university) decision-making, since both take place in a wider organizational and systemic contexts. In other words tensions arise between the individual and organizational level, when individuals have conflicting values and preferences, which result conflicting organizational objectives and cause conflicting agency (Andersson and Bateman 2000, Bansal, 2003). Tensions between the organizational and the systemic level arise, when organizational sustainability initiatives do

not address sustainability concerns, or in this thesis the concerns of the tensions, to a sufficient extent. In the systemic-level, sustainability is seen beyond the individual organizations as an agency that focuses on the contribution of the organization to a more sustainable society at large (Whiteman et al. 2013; Hahn et al., 2015).

In this study the different levels were addressed in a following manner:

- *Individual level:* university leaders and ministry officials
- *Organizational level:* Northern and Capital region universities
- *Systemic level:* the Finnish university system, the perspective of the Ministry of Education and Culture

In this study, the individual level illustrates the level of the university leaders and ministry officials as individuals. This level was not addressed to a great extent in the study though personal values of the interviewees were asked and compared to the organizations' values. The values were very similar and in synch with organizations' values. It seemed that namely the similar value base worked as a motivator for careers in academia or in science and higher education politics. Only noteworthy difference was the officials' duty to serve the minister in lead. As a civil servant, the values of the minister in office can differ from the officials' personal values and this might work as a test of a career choice, as one of the officials mentioned:

*"When the elections are held and ministers are changed and they come from different political groups, so then it is tested that whether one does understand what is the role of the civil servant. Because it is so that officials cannot stand above peoples will. Because if we started to think that the values of that certain reference group are something we cannot personally share, and because of that I would not help and serve the future minister to the greatest extent. This is always a test of the professional self and the obligations ruled by law, such as the loyalty obligation of a civil servant."*

Even though the interviewees shared similar academic values, very few interviewees remembered the values of their home organization.

On the organizational level this study focuses on the Northern and Capital region universities. Although the Ministry of Education and Culture is an organization, its' perspective is in this



study regarded as the systemic level, because of its' steering relationship to the universities and power over the university system.

## **Change**

According to Hahn et al. (2015, p. 302) change from unsustainable practices towards more sustainable modus operandi is inbuilt in the concept of sustainable development. In the corporate sustainability context this means in corporate strategy and operations (ibid.). Thus, change in the context of the integrative framework refers to dynamic process of alternative pathways and transformations that lead to more sustainable practices.

In this study the aspect of change is the driver of this study: knowledge is needed in order to aim for more sustainable future. On the level of the university system, change is recognized as the different kinds of outcomes and processes wished from the three organizations. These wishes take somewhat clear shapes based on the interviews, but are not concentrated any further.

## **Context**

Tensions' temporal and/or spatial contexts are addressed in the Table 2 in order to clarify organizations' special characteristics regarding the tensions. The contexts are not explicated any further, only to add small insights in order to explicate what kind of different organizational points of views the tensions have evoked.

The temporal context of the integrative framework is an important element in sustainability development, since it illustrates the dimension of future generations, aspects of social, economic and environmental issues, i.e. the intergenerational equity. In this study all of the tensions have temporal contexts, since university is a centennial institution developing slowly, following long-term strategy. In the Table 2 the temporal context notes represent specific characteristic insights of temporal context.

The spatial context refers to the regional element in sustainable development: intragenerational equity, which concerns equitable development opportunities between regions of different development levels at the present time (Hahn et al. 2015). In this thesis the tensions of structural development of universities and the emergent regional political

tension have spatial contexts. The spatial context notes of the Table 2 represent insights of this context.

#### **4.11.2 Answering to the sub-questions**

*Q2: How are the social and economic sustainability tensions of the Finnish university system perceived by the two university managements?*

All, nine sustainability tensions based on the scholarly discussion on higher education were recognized by the university leaders on some level. The weakest tensions according to the interviews were the tensions of entrepreneurial university and academic leadership and legitimacy of the management. Regarding the tensions of entrepreneurial university, economy was seen as a natural operational environment for universities enabling and even fueling research. Joint-projects and company collaboration were seen as positive functions regarding basic research giving information of new research topics. University leaders did not agree with the scholarly point of view on the academic capitalization, of business endeavors and industry dictating too much academic community.

The tension of academic leadership and legitimacy of the management was a weak one according to the university leaders. The tension was controversial in comparison to the experiences of the leaders from the Capital region university, since the leaders had experienced the legitimacy increasing after the Universities Act. There was a clear difference between the management perspectives versus the scholarly perspective, which was surprising since the discussions of experienced legitimacy of university management have been also present in the media and been a topic of public discussion as well as hot topic in the scholarly discussion on HE.

Other tension seen as less significant was the tension regarding the role of university institution in the future. Especially the university leaders from the Capital region university did not express concerns of the future of the institution. The change of science and knowledge production, shift to Mode 2 type of research discussed by the scholars, was not mentioned by the leaders of neither university though future scenarios of university institution were reflected to some extent.

Unanimously strongly perceived tensions by the university leaders were the tensions of societal impact and interaction, pressures on the 'public purse' and the academic work and profession in change. The leaders from the Northern region university experienced the tension of academic freedom and autonomy as significantly where as the Capital region university leaders saw it only as somewhat significant.

The two emergent tensions regarding regional politics and political power over the university system stemmed from the interviews with both universities' leaders. Especially the theme of structural development provoked the comments on these tensions. The biggest differences between the perceptions of the two universities were the attitudes towards structural development and academic freedom and autonomy. Both organizations experienced some concern and mistrust on the profiling process, but the perspectives of structural development were opposites. To summarize, university leaders from the Capital region thought that profiling measures should be continued further and people educated in universities should adjust on the supply of work according to the regional needs for experts and professionals. The Northern region university leaders argued that it is unrealistic to lure people to move after work to Northern and Eastern areas based on their past experiences and called for more recognition of universities' operational environments when making the decisions concerning the strategic profiling areas. Leaders from both universities called for clearer a vision of the future of Finland's higher education system and whether country's aim is to be fully inhabited or not.

The perspectives on the tension concerning academic freedom and autonomy differed slightly. Northern region university leaders perceived this tension slightly more strongly than their colleagues in the Capital region. The critical comments of the Northern university leaders were linked to the quotas for students in higher degrees, in narrow profiles and in the experienced financial autonomy after the Universities Act legislative change and cuts in university budgets.

*Q3: How are the social and economic sustainability tensions of the Finnish university system perceived by the senior officials in the Ministry of Education and Culture?*

The ministry officials experienced the tensions of entrepreneurial university and academic work and profession in change as weak tensions, which was very opposite to the scholarly

discussion. Alike in the interviews of the university leaders, commercial activities of universities were not seen as contradictory in any sense. However the tension of academic work and profession in change, was perceived rather as a change of operational environment and nothing new per se, where as the scholarly discussion on the topic is focused on the pressures of individual researchers.

Also the tensions regarding the role of university institution in the future and the role of the state in the university system as well as the tensions regarding structural development and regional politics were perceived as weak. There was little speculation of possible competitors for universities. The approach on structural development was more neutral and optimistic than the one of the scholarly discussion.

The only tensions regarded as strong by the officials were the pressures for societal impact and interaction and pressures on the 'public purse'. What were noteworthy also in the interviews of the university leaders were the colorful definitions for societal impact and interaction. According to the ministry officials even the ministry sector has different meanings for societal impact of universities. This was alike in the scholarly discussion full of different characterizations for societal impact and interaction.

Three officials were interviewed and most of the tensions were perceived similarly by all of the three officials. All of the tensions were perceived either as weak or significant except the tension of academic leadership and legitimacy of the management, which was regarded as somewhat significant. The interview was started with the questions regarding values – organizations' and interviewee's. The job of an official in the Ministry of Education and Culture is to serve the minister in lead like mentioned previously and officials have to comply with civil service ethics (Ministry of Education and Culture, 2005; 750/94 (Ministry of Finance, 2005)), thus it is not surprising that the comments of the officials differ less from each other than those of the university leaders.

*Q4: How do the perceptions of the sustainability tensions of the Finnish university system differ between the managements of two universities and senior officials in the Ministry of Education and Culture and the tensions of the scholarly discussion?*

Figure 8 portrays the sustainability tensions applied on the integrative framework studied and illustrates the differences between the levels of the Finnish university system. The tensions, which were perceived as significant by all of the interviewees were pressures on the public purse and the pressure for societal impact and interaction.

The systemic next level in the Figure 8 portrays the next biggest system, which contains the Finnish university system. This level is placed to the integrative framework in order to illustrate the tensions, which were detected and perceived as significant by all of the organizations according to this study. Tensions are formed of contradictive elements and even though one can argue (and study!) whether the state of Finland and Ministry of Education and Culture could have differing perceptions of the tensions, this level is added to the framework to illustrate the tensions, which were perceived as strong by all of the interviewees.

Six tensions: structural development of universities, regional political tension, tension of political power over the university system, academic work and profession in change, academic freedom and autonomy and role of the state in the university system were perceived as significant or somewhat significant tensions by the universities, but not by the Ministry of Education and Culture. Thus the tensions between the organizational level and systemic level of this study are the ones previously stated.

The way of how academic freedom and autonomy were perceived varied. The realities of the individual researchers were not as clear for the ministry officials as they were for the university leaders (ministry: weak, Northern region university: significant, the Capital region university: somewhat significant). The definitions of university autonomy varied between societal autonomy, operative autonomy and financial autonomy. Also the other tension touching the realities of an individual researcher: the change of academic work and profession was not perceived as strong tension as did the university leaders (ministry: weak, universities: significant).

The tension, which one could think as the strongest tension between the organizations, the role of the state in the university system, was not perceived dramatically differently between the three organizations. All of the interviewees saw the role of the state similarly, although when perceiving the interviewees in each organization, the university leaders experienced the tension as somewhat significant and the officials as weak.

Since the individual values of the interviewees were similar and in line with their home organization's values, no tensions between the individual and organizational level were detected in this study. Instead, the differences between perceptions of the scholars and the university leaders as well as officials were significant. Three tensions: entrepreneurial university, role of university institution in the future and academic leadership and legitimacy was perceived as weak by at least one of the three organizations and somewhat significant by the other organizations (see Table 2). This is why the meta-level of scholarly discussion is added to the integrative framework.

The added meta-level represents the scholarly discussion of this study. Since general knowledge establishes through research, one can consider the meta-level as the level of knowledge (Gibbons et al., 1994)25.5.2018 22.09. This level could also portray the general knowledge of certain profession, subculture or other reference group. The developing of the meta-level was inspired by the theory building of Carayannis and Campbell (2012) in the context of quadruple- and quintuple-helices.

Business realities are such an inbuilt part of university operations that the critique for commercial dominance, the scholarly discussion of the tension of entrepreneurial university, was not recognized or saw relevant by the university leaders or ministry officials. The future role of the university institution was not much elaborated or speculated in the interviews differing from the change of knowledge production and research discussed by the scholars. Also the tension of academic leadership and legitimacy of the management was seen as a weak tension by the university leaders, although it has been seen as a tension according to the assessments of the ministry of culture and education.

The integrative view argues that organizations need to pursue different aspects simultaneously even though they seem to contradict each other in order to not remain limited by the instrumental logic, but can regard broader spectrum of strategies and this way hold considerable potential which remain unnoticed under an instrumental view (Gao and Bansal, 2013, p. 244; Hahn et al., 2015, p. 299, 2010). This further developed integrative framework can be utilized in order to acknowledge tensions in the Finnish university system and address them in the future preparation of legislation and strategies or exploring the relationship of the tensions in greater extent.

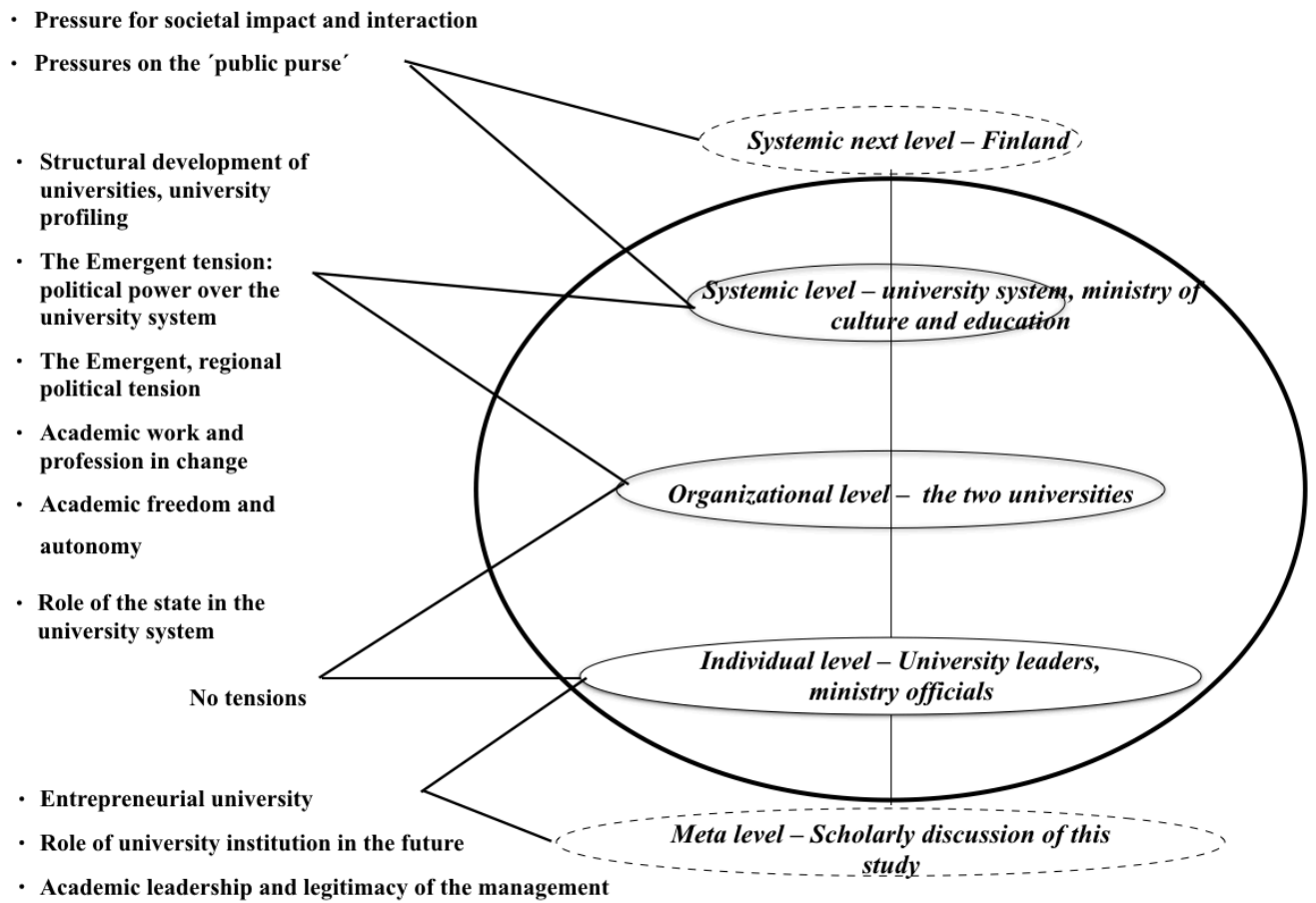


Figure 8 The integrative framework by Hahn et al. (2015) developed further to illustrate the social and economic sustainability tensions of the Finnish university system

Sustainability tension and its specification	Category of the tension: social (Ts), economic (Te) or socio-economic (Ts&e)  Level(s) of the tension: individual (i), organizational (o) and systemic (s)	Ministry of Education and Culture  Level of the tension: *= Weak tension, 1 interviewee mentioned **= Somewhat significant tension, 2 interviewees mentioned ***= Significant tension, 3+ interviewees mentioned  Context of the tension: Temporal or/and Spatial	Northern university  Level of the tension: *= Weak tension, 1 interviewee mentioned **= Somewhat significant tension, 2 interviewees mentioned ***= Significant tension, 3+ interviewees mentioned  Context of the tension: Temporal or/and Spatial	Capital region university  Level of the tension: *= Weak tension, 1 interviewee mentioned **= Somewhat significant tension, 2 interviewees mentioned ***= Significant tension, 3+ interviewees mentioned  Context of the tension: Temporal or/and Spatial
<p>1. Entrepreneurial university</p> <p>The tension between universities' pressures for entrepreneurial activities: accumulating resources, acting in a more agile manner and teaching entrepreneurial mindset and skills – and at the same time carrying out long-term strategy in research and education activities.</p>	<p>Ts&amp;e</p> <p>i – o – s</p>	<p>*Weak tension</p>	<p>*Weak tension</p> <p>Spatial = National competition perceived as a threat</p>	<p>*Weak tension</p>
<p>2. Pressure for societal impact and interaction</p> <p>Increasing demand for societal impact and interaction, at the same time poor parameters for</p>	<p>Ts&amp;e</p> <p>i – o – s</p>	<p>*** Significant tension</p> <p>Spatial = Universities are wanted to different regions tells about societal success</p>	<p>*** Significant tension</p> <p>Spatial = Regional collaboration</p>	<p>*** Significant tension</p>



measuring it and lack of information for requirements, means and ways to put it into practice.				
<p><b>3. Academic freedom and autonomy of universities</b></p> <p>The tension between freedom of research (for individuals and universities) and strategic decisions by university management and ministry level and global institutions (e.g. OECD, World Bank).</p>	<p><b>Ts</b></p> <p><b>i – o – s</b></p>	<p><b>*Weak tension</b></p> <p>Temporal = Difficult to predict future needs in research and education</p>	<p><b>*** Significant tension</b></p> <p>Spatial = Tight University profiles restrict</p> <p>- Need for vision for the whole system</p> <p>- The significant role of the ministry recognized</p> <p>Temporal = Old academic freedom versus new academic freedom</p>	<p><b>** Somewhat significant tension</b></p> <p>Spatial = No clear profiling decisions have been made</p>
<p><b>4. Academic work and profession in change</b></p> <p>The increasing tension between performing well on research duties and at the same time working as a project manager and financial officer of the work and enduring the pressure of accountability and communication requirements.</p>	<p><b>Ts</b></p> <p><b>i – o – s</b></p>	<p><b>*Weak tension</b></p> <p>Temporal = Past extensive education of doctors</p> <p>- Worry of the unemployed researchers now</p> <p>- Worry of the future generation researchers</p>	<p><b>***Significant tension</b></p> <p>Temporal = The management skills of the present and future researchers</p> <p>- Worry of the future generation researchers</p>	<p><b>***Significant tension</b></p> <p>Temporal = The management skills of the present and future researchers</p> <p>- Worry of the future generation researchers</p>
<p><b>5. Role of university institution in the future</b></p> <p>The tension between changing ways of knowledge production (Mode 2, post-academic and</p>	<p><b>Ts&amp;e</b></p> <p><b>i – o – s</b></p>	<p><b>*Weak tension</b></p> <p>Spatial = Important role in EU and national identity</p>	<p><b>**Somewhat significant tension</b></p> <p>Spatial = Universities and institutes will join on the same campus</p> <p>Temporal = Pressure to offer education faster because of the faster cycle</p>	<p><b>**Somewhat significant tension</b></p> <p>Spatial = Local and global networks</p> <p>- Education is part of national identity and a national resources</p>

<p>post-normal science, open science movement) and intensifying need for knowledge e.g. for global crisis management and solving the wicked problems. The hegemony of Western science is becoming increasingly established with university rankings based on business-driven parameters. At the same time companies have started to develop education services.</p>			<p>of technologies</p>	<p>Temporal = pressure to go faster and live in time, need for supplementary education</p>
<p><b>6. Pressures on the 'public purse'</b></p> <p>The resources of the public sector are in decline. The public university public has been cut, tuition fees and other possibilities for funding have been considered by the Finnish government.</p>	<p><b>Te</b></p> <p><b>o – s</b></p>	<p><b>*** Significant tension</b></p>	<p><b>*** Significant tension</b></p> <p>Spatial = Mistrust in the process, especially in the transparency and fair distribution of information</p> <p>Temporal = Fear of swinging finance decisions</p>	<p><b>*** Significant tension</b></p> <p>Spatial = Mistrust in the process in the area of politics,</p> <p>- Fear of personal regional agendas of individual politicians and parties</p> <p>Temporal = Slight fear of swinging finance decisions</p>
<p><b>7. Role of the state in the university system</b></p> <p>Tension between the state wanting universities to be more autonomous (e.g. resource accumulation) – still a need to govern the HE system as a “national innovation system” with a unified strategy.</p>	<p><b>Ts&amp;e</b></p> <p><b>o – s</b></p>	<p><b>*Weak tension</b></p>	<p><b>**Somewhat significant tension</b></p> <p>Spatial = Clear vision of the regional politics of Finland</p> <p>Temporal = Fear for political decisions</p>	<p><b>**Somewhat significant tension</b></p> <p>Temporal = Fear for political decisions</p>
<p><b>8. Structural development of</b></p>	<p><b>Ts&amp;e</b></p>	<p><b>*Weak tension</b></p>	<p><b>*** Significant</b></p>	<p><b>**Somewhat</b></p>

<p>universities, university profiling</p> <p>The tension between the national goal of wanting world-class universities and the regional policy of Finland, with limited resources and ambition to keep the whole country inhabited.</p>	<p>i – o – s</p>	<p>Temporal = Structural development advances economic sustainability of universities</p>	<p>tension</p> <p>Spatial = No tight profiles exist in Finland, need for vision of Finland’s future higher education</p> <ul style="list-style-type: none"> <li>- Structural development might diminish experienced freedom of research</li> <li>- Worry of the ceasing of fields of research</li> </ul> <p>Temporal = Structural development advances economic sustainability of universities</p>	<p>significant tension</p> <p>Spatial = University network is dense, no tight profiles exist, need for vision of Finland’s future higher education</p> <ul style="list-style-type: none"> <li>- Politicians personal interests in structural development</li> <li>- Structural development might diminish experienced freedom of research</li> </ul> <p>Temporal = Structural development advances economic sustainability of universities</p>
<p>9. Academic leadership and legitimacy of the management</p> <p>After the Universities Act reform in 2009, academic leaders gained more power and rector’s role became more of a CEO – the Finnish university community is at the same time diverged from decision-making.</p>	<p>Ts</p> <p>i – o – s</p>	<p>**Somewhat significant tension</p>	<p>*Weak tension</p>	<p>*Weak tension</p>
<p>10. The Emergent, regional political tension</p> <p>The tension between regions in need of talent and workforce, state’s wishes for world-class universities and the Capital region universities’ wishes</p>	<p>Ts&amp;e</p> <p>i – o – s</p>	<p>*Weak tension</p>	<p>**Somewhat significant tension</p>	<p>**Somewhat significant tension</p>

for stricter profiling measures.				
<p>11. The Emergent tension: political power over the university system</p> <p>The tension regarding the duration of the political term. The four-year-period of members of the Finnish Parliament was perceived as problematic concerning the long-term nature of universities’.</p>	<p><b>Ts&amp;e</b></p> <p><b>o – s</b></p>	<p><b>*Weak tension</b></p>	<p><b>**Somewhat significant tension</b></p> <p>Temporal = Fear of sudden changes in the public finances granted to universities</p> <p>- Fear of sudden strategic decisions not taking long-term plans into account</p>	<p><b>**Somewhat significant tension</b></p> <p>Temporal = Fear of sudden changes in the public finances granted to universities</p> <p>- Fear of sudden strategic decisions not taking long-term plans into account</p>

Table 3 The economic, social and socio-economic and the emergent sustainability tensions of the study

## 5. Conclusions

The role and the meaning of the university institution has become a subject of a substantial scholarly and societal discussion and debate. One could say that university is in the middle of an identity crisis. The development of the ICT sector resulted the network economy in the 80's–90's (Castells, 2001) and the tightened competition of knowledge between companies and nation states have resulted the global trend of higher education reforms (Etzkowitz and Leydesdorff, 2000; Mok and Welch, 2003; Krejsler, 2006; Deem et al., 2008; Moio, 2014). Today all knowledge-producing institutions have to justify their existence in the global competition (Burbules and Torres, 2000; Mok and Welch, 2003; Deem et al., 2008) and also universities are increasingly thought of as competitive actors (Wedlin, 2008; Aula, 2015).

University institution is expanding globally (Frank & Meyer, 2007) and the pressures for increasing openness and interaction with stakeholders inside and outside academia, are growing because of the need to justify funding for the growing number of stakeholders (Funtowicz and Ravetz, 1993, Gibbons et al. 1994). One reason for the pressure is that the higher education sector is most often financed by the state, which strengthens the need for accountability and monitoring (Pinheiro et al. 2015, p. 229). Universities are today thought of as entities operating in the intersection of different institutional domains (Stevens et al. 2008; Wedlin 2008; Aula, 2015).

Since technological development has made the scientific community genuinely global, enabled access to research results for a broader network and taken the possibility to link research data and other information to a next level, scholars talk about a paradigm shift happening in higher education, knowledge production (Mönkkönen and Neuvonen, 2018; Ravetz, 2004, Gibbons et al. 1994, Ziman, 2000). Scholarly discussion of the new academic culture, where the possibilities of utilizing research results and participating in conducting research are broader, have been ongoing since the beginning of the 1990's.

The discussion of sustainable development, which is recognized almost unanimously urgent by the academic and global community (Elkington, 1994, Rockström et al., 2009; Whiteman et al., 2012), is one reason for the acknowledged importance of higher education.

Universities' mission to produce societally relevant research and education in order to

enhance sustainable development, has become one of the grand missions of academia (Burbules and Torres, 2000).

This thesis was interested in sustainability as in *sustaining* and attaining a university system, which is ecologically, socially and economically sustainable. This thesis regarded university as an important stakeholder in the transition towards more sustainable practices and future (Burbules and Torres, 2000; Geels and Schot, 2007; Hahn et al., 2015). The study focused on the social and economic sustainability tensions of the Finnish university system and recognized the ecological dimension of sustainability as the dominant driver of sustainable development movement.

Hahn et al. (2015) have suggested a framework for studying and managing tensions, which arise between different systemic levels in the corporate context, when striving for sustainable solutions. The framework stresses the usual practices in management studies of sustainable development, where only win-win situations are concentrated in sustainability studies. Since universities can be defined as quasi-business organizations (Marginson, 2016), independent actors in the global competition (Mok and Welch, 2003; Krejsler, 2006), I have justified the application of the framework in the context of universities. Recognizing sustainability tensions strives making all possible solutions, approaches and tensions visible. When one is not limited by the sole win-win solutions, obtaining a broader perspective on (sustainability) strategies is possible (Hahn et al., 2010; Hahn et al., 2015).

The reason for the focus of this thesis was that the most topical discussions of HE tensions, concern social and economic aspects e.g. the autonomy of the modern university institution (e.g. Krejser, 2006; Deem et al. 2008), the global competition of universities and its' consequences: the increasing weigh on rankings and series of university mergers (e.g. Altbach, 2004; Harman & Harman 2008). In Finland more particularly the consequences of the law reform in 2009 and the role of government in the university system (e.g. Aarrevaara & Hölttä, 2008; Pekkola, 2009; Tirronen, 2015).

This was a qualitative study following the research tradition of phenomenology with the ontology of social constructivism. It was focused on the management perspectives of two Finnish universities and senior official perspectives of the Ministry of Education and Culture.

The purpose of this thesis was to shed light on the Finnish university system and form a systemic point of view of its' tensions.

## 5.1 The Main findings of the study

Next I am going to present the main findings of the study by answering to the research question: *What kind of social and economic sustainability tensions exist in the Finnish university system?*

The beneath listed tensions from 1.–9. were detected from the scholarly discussions. The tensions 10. and 11. were emergent tensions stemming from the interviews. All 11 tensions were recognized by all of the interviewees of this study. The tensions 1.–5. can be applied to higher education on a global scale, tensions 6.–11. are applicable on the Nordic context of higher education, especially on the Finnish context.

- |   |  |
|---|--|
| 1. The tension regarding entrepreneurial university | 6. Pressures on the 'public purse'                                   |
| 2. Pressure for societal impact and interaction     | 7. Role of the state in the university system                        |
| 3. Academic freedom and autonomy of universities    | 8. Structural development of universities, university profiling      |
| 4. Academic work and profession in change           | 9. Academic leadership and legitimacy of the management              |
| 5. Role of university institution in the future     | 10. The Emergent, regional political tension                         |
|   | 11. The Emergent tension: political power over the university system |

Economic perspective was dominant in the interviews of this study. The strongest perceived tensions were pressures for societal impact and interaction and pressures on the 'public purse'. The tension of entrepreneurial university was not recognized as significant by the interviewees even though the critical academic discussion on the matter is lively.

University leaders' perspective was more aligned with the scholarly discussions. Especially the tensions regarding academic community were recognized by the university leaders, but not by the officials to the same extent. The individual perspective of the tensions regarding

the academic community was acknowledged to some extent by the university leaders but less by the ministry officials. On the other hand, the tension of the academic leadership and legitimacy was recognized more by the officials than the university leaders.

The tension regarding the future role of university was discussed only little and neither university leaders nor the ministry officials sensed much threats or competitors concerning university institutions' dominant position in the field of higher education. The so-called paradigm shift in knowledge production and science was not discussed, though some scenarios of the future applications and scenarios were discussed.

The tensions regarding structural development and regional policy were perceived as somewhat significant by the leaders of both of the universities. There was a clear tension between the perspectives of the two universities. The Northern region perspective wished for more systemic considering, when designing the HE profiles as well as understanding of the migration flows (from North and East to South and West). The Capital region perspective saw Finland's university network as dense and argued that clearer profiling measures should be performed. Both of the universities expressed mistrust on the transparency of the profiling process and called for clearer vision for the future of the Finnish higher education system.

## **5.2 Theoretical contribution of the research**

The contribution of this thesis was, first of all, to view Finnish higher education through the emergent corporate sustainability lens uniting the perspectives of sustainability studies, higher education studies, political science and management studies in the theoretical framework providing a novel angle to perceive higher education.

Secondly, this thesis provided three management perspectives from different, opposite sides of the Finnish higher education system and thirdly, a systemic perspective of the Finnish university system and its' social and economic tensions.

The theoretical contribution of this thesis was the development of the integrative framework by Hahn et al. (2015) and its' application on the higher education context. The application resulted a new, systemic perspective on the Finnish university system and the tensions between university management perspectives (organizational level) and the ministry



perspective (systemic level). In addition the integrative framework was developed further by adding two levels the meta-level of scholarly discussion and the systemic next level.

The meta-level of scholarly discussion illustrated the scholarly discussions of this thesis. It was added to the framework in order to highlight the differences of the university leaders and ministry officials and the scholarly discussions of the theoretical framework of this thesis (see Figure 8). The systemic next level was added in order to highlight the tensions perceived as strong by all of the organizations. In this thesis the systemic next level portrays the state of Finland, which is the next biggest containing system of the university system.

### **5.3 Limitations of the study**

The most obvious limitations of this thesis are the ones resulting from methodological choices made based on the objectives and resources of this study. The scholarly discussion is guiding this study strongly, since the tensions of higher education were not researched to an extent, where it would be natural to approach the topic with open or narrative interviews. The theory-leaning nature of this study depicts and frames the tensions leaving the interviewees less freedom for defining the tensions themselves.

The total eleven sustainability tensions are intertwined, complex perspectives on higher education per se. Each of the tensions could be studied to a greater extent. In this study tensions are strived to be presented as simply as possible in order to reach the systemic perspective on the university system. If perceived more in-depth, each of the tensions has many poles and micro-tensions within. The social and economic sustainability tensions of this study are multidimensional and thus this perspective provides simplified snapshot over the university system.

Eleven interviewees from the two universities and the Ministry of Education and Culture were used as the sample of this study. More universities would have provided even more reliable and richer data to be studied. The interview data dates back to Spring 2017 and since a lot has happened in the field of Finnish higher education, e.g. the strike of the university personnel in winter 2018, Finnish companies are interested in hiring doctors (Holopainen, 2017) and a lot of discussion on the HE budget and the meaning of research in the media, it remains as a mystery whether the interviewees would have answered differently in the Spring 2018.

The integrative framework by Hahn et al. (2015) is suitable for studying the tensions in the context of HEIs, since universities of today are more corporate-like, which is also validated by the findings of this study. Still, since the majority of the HE budget in Finland comes from the state, one has to remember that it is always problematic to compare private sector and HE sector to each other. The state is in the agent practicing ownership steering and its' missions are not to maximize the profits of HEIs. The political dimension of the steering relationships between the state and HEIs is a special feature of the relationship, which makes the analysis at least three-dimensional unlike in the case of a corporation and its' stockowners.

Sustainable development is seen in this thesis through a logic of: universities produce knowledge, more knowledge is needed to solve problems regarding sustainability, universities produce knowledge and thus more sustainability is obtained if the university sector is functioning well. This logic is not flawless, since university sector can also result unsustainable outcomes and one can also argue that new knowledge and solutions can be provided outside university. Since higher education in Finland is free of charge and like commented by several interviewees, advances social stability in many ways, one can argue that well functioning university sector advances social, environmental and economic wellbeing of people in Finland.

#### **5.4 Suggestions for further research and implications for practice**

This study opened many interesting topics for further research. First of all, all of the eleven sustainability tensions and their interrelated nature could be studied more in-depth. Also, the data of this study is rich and could be studied to greater detail focusing on the differences of the university perspectives (e.g. discourse analysis). Also the spatial and temporal contexts of the integrative framework could be focused on more or the aspect of change: how do the both universities see the preferred change processes towards better functioning university sector.

This study focused on the university management perspective and the perspectives of the ministry officials. The eleven social and economic sustainability tensions could be studied focusing on researchers, academic staff and students in order to reach even more holistic understanding of the university system. I regard this as a societally important topic, which would benefit the lack of researcher perspective emerged in the results of this study. Also

since companies are so strongly interlinked with the Finnish university system, their perceptions of the tensions would be relevant as well.

Also the political dimension of the state-university steering relationship could be studied to a greater extent and this way obtained more useful information for public management, financing and measuring publicly owned and funded institutions.

Last but not least, the 11 social and economic sustainability tensions could be elaborated and focused on a greater extent and study how the integrative framework could be exploited in the preparation of legislation and in the practices of the university managements.

Based on the knowledge gained from the research process I wish to highlight the regional aspect of Finnish higher education and science politics. The profiling measures, which are warmly welcomed in the Finnish scientific community, are in the implementation process, which in the long-term cycled university context, take time. Still the tensions, which emerged from this thesis could be taken into account in the policy making process more clearly. The dialogue between universities and the ministry could be more open regarding the expressions of mistrust and doubt concerning the financing model and profiling measures. Based on this study Finnish universities do not collaborate, if the physical distance is too long. This is against the profiling logic. It would be beneficial for universities, though located far away from each other, to collaborate if the strategic focus areas match. This could produce synergies and new knowledge, because of the spatially forced different perspectives.

Even more knowledge of the reality of individual researchers should be obtained and communicated to the managerial level of the university system. The meaning of the emerging third space, the changing academic profession and changing pressures towards researchers should be clear for all leaders and policy makers. The understanding of the everyday life and pressures of different kinds of academic workers could be increased. I also argue that clearer definitions for autonomy of universities and societal impact and interaction are a matter worth considering. More clearly stated definitions would increase the common understanding of the goals of the universities.

Science and research practices are in the middle of changes (Gibbons et al. 1994, Mönkkönen & Neuvonen, 2018). How does the development of technology affect knowledge production

and universities? Finnish university leaders and senior officials could look even more into the future. Like one of the interviewees of this study said, the secret of the long age of the university institution is its' ability to modify just as much as needed in order to sustain itself.

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## **Appendix 1: The interview questions**

### **1. Esittely, arvot ja organisaatio**

Kysyn ensin aloituskysymykset.

Nimenne?

Tittelinne?

1. Miten kuvailisitte jokapäiväistä työtänne, mikä on toimenkuvanne?
2. Mitkä ovat organisaationne arvot?
3. Miten koette näiden arvojen olevan läsnä organisaationne arkipäivässä?
4. Miten koette omien ja organisaationne arvojen yhteensopivuuden? Ovatko ne linjassa?

### **2. Kysymykset liittyen sosiaalisen ja taloudellisen kestäväyyden jännitteisiin**

#### **Henkilöstö ja hallinto**

5. Akateemisen työn muutos on asia, josta käydään vilkasta keskustelua. Mitä mahdollisuuksia ja haasteita näette tässä asiassa suomalaisten yliopistojen tulevaisuuden suhteen?

- Usein tässä akateemisen työn muutos -keskustelussa mainitaan, että “halutaan huippututkimusta ja johtajuutta samasta paketista”. Miten tämä työn vaatimusten muutos näkyy suomalaisten yliopistojen strategioissa?

6. Opetus- ja kulttuuriministeriö linjasi vuonna 2014 (Uudistava Suomi: Tutkimus- ja innovaatiopolitiikan suunta 2015–2020) yliopistojen rakenteellisen kehittämisen nopeuttamisesta valtionrahoituksen edellytyksenä. Mitä haasteita tähän rakenteellisen kehityksen nopeuttamiseen liittyy yliopistojen johtamisen näkökulmasta?

7. Yliopistolain uudistuksen jälkeen rehtorit ja yliopiston johto saivat lisää valtaa, koetteko että tämä vaikuttaa johdon legitimiyyteen suomalaisten yliopistojen tiedeyhteisöissä?

#### **Tutkimus ja opetus**

8. Mitä mahdollisia ongelmakohtia suomalaisten yliopistojen strategiatyössä on kun puhutaan perustutkimuksen laadun nostamisesta ja yritysyhteistyön sekä innovaatioiden lisäämisestä?

9. Mitä olette mieltä väittämästä: “Yliopistojen on vaikeaa toteuttaa tehtävänsä nykyaikaisessa markkinaehtoisessa maailmassa?”

10. Miten koette yliopistojen profiloitumisen problematiikan sosiaalisen kestävyuden kannalta (esim. akateeminen vapaus, tasa-arvo, yhteiskunnallinen vaikuttavuus) ja toisaalta taloudellisen kestävyuden kannalta (esim. turvattu taloudellinen asema, kestävä talous)?

11. Millä tavoin yhteiskunnallinen vuorovaikutus on huomioitu suomalaisten yliopistojen strategioissa?

- Kuinka helppoa suomalaisten yliopistojen on olla vuorovaikutuksessa ympäröivän yhteiskunnan kanssa?

### **Taloudenpito ja rahoitus**

12. Onko tämänhetkinen yliopistojen rahoitusmalli teistä toimiva? Miksi?

- Yliopiston rahoitusvaatimuksissa arvioidaan sekä laadullisia näyttöjä (esim. tutkimuksen laadun suhteen), että määrällisiä näyttöjä (esim. julkaisujen määrän suhteen). Miten koette tämän asetelman?

13. Onko suomalaisilla yliopistoilla sopivasti, liikaa vai liian vähän määräysvaltaa omaan toimintaansa? Miksi?

14. Akateemisessa ja julkisessa keskustelussa puhutaan paljon yrittäjyydestä ja yrittäjämäisestä yliopistosta. Miten määrittelette käsitteen “yrittäjämäinen yliopisto”?

- Miten käsite on mielestänne linjassa yliopiston tehtävän kanssa?
- Miten yrittäjämäisyys näkyy suomalaisten yliopistojen strategioissa?
- Miten yrittäjämäisen kulttuurin sekä toiminnan lisääntyminen on näkynyt yliopistoissa viimeisen viiden vuoden aikana?

15. Tuleeko teille mieleen muita erikseen mainittavia, yliopiston strategian kannalta merkittäviä, ongelmallisia teemoja, jotka aiheuttavat lisätyötä?

### **3. Yliopiston rooliin ja yliopistoinstituutioon liittyvät kysymykset**

16. Miten määrittelisitte organisaationne roolin suomalaisessa yhteiskunnassa?

17. Mikä on mielestänne yliopistoinstituution rooli tulevaisuudessa Suomessa ja maailmassa?

18. Mitä yhteiskunnallisia paineita organisaationne tässä roolissa, kokee? Entä suomalaiset yliopistot yleisesti?

19. Mikä on mielestänne ihanteellinen valtion rooli yliopistojärjestelmän suhteen?

20. Bengt Holmström mainitsi puheessaan eduskunnalle 29.3.2017, että ”Suomessa yliopistoja voitaisiin mahdollisesti yksityistää tai päästää vapaaksi” (Virkkunen, 2017). Mitä olette mieltä tästä?

#### **4. Lopetus ja haastattelun reflektio**

21. Tuliko teille mieleen kysymyksiin liittyviä asioita, jotka haluaisitte mainita kun puhutaan sosiaalisesta ja taloudellisesta kestävyydestä yliopiston kontekstissa?