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Potential of Work-Time Reduction Policies to Improve Quality of Life and Reduce Environmental Impacts in Developed Countries: The Case of Norway

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Master of Science in International Environmental Studies

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Declaration

I, Julie Alexandra Lie Pau, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Signature.....

Date.....

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Abstract

In the national and international policy agenda the societal challenges and dilemma of working time is a big matter of debate because it links to major sustainability challenges reflected in the Sustainable Development Goals (SDGs). This includes access to employment, work-life balance and the climate crises. Some politicians and economic leaders in Western industrialised countries state that we must work longer hours and more years in the future to maintain the welfare state and keep employment rate at the same levels as today in the context of an aging population. Others claim Work-Time Reductions (WTR) can be part of the solution to sustainability challenges, based on suggestive evidence of positive impacts on sustainability indicators like life satisfaction, work-life balance and reduced emissions. Hence, there is disagreement on how to best meet future societal challenges in terms of working time. The societal dilemma at stake is the choice between additional leisure time and additional purchase power, two objectives that may not be maximised simultaneously. The aim of this thesis is to advance our understanding of the feasibility of implementing WTR as a policy to improve quality of life and reduce environmental impact in developed countries. In pursuing this aim, semi-structured interviews with key informants has been conducted in Norway to assess the scope for advancing WTR policies in a developed country setting. The thesis also assesses the popularity of WTR policies amongst concerned stakeholders, and attempt to understand the broader socio-economic considerations and structural factors that need to be accounted for a successful implementation. Although there is limited support towards WTR policies at this point, this thesis suggests that implementation will be feasible if 1) there is broad understanding for potential aims and outcomes of the policies, 2) lower-paid workers are financially compensated, 3) affected employees are involved in the design of WTR policy, and 4) additional policies are implemented in order to ensure reduction of environmental impacts.

List of abbreviations

e.g. – For example

EU area – Member States of the EU who has adopted the Euro as their currency

EU – European Union

GDP – Gross Domestic Product

GHG – Greenhouse Gases

i.e. – That is

IPBES – The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

IPCC – Intergovernmental Panel on Climate Change

LO - the Norwegian Confederation of Trade Unions (Landsorganisasjonen i Norge)

NITO – the Norwegian Society of Engineers and Technologists (Norges Ingeniør- og Teknologiorganisasjon)

NMBU – The Norwegian University of Life Sciences

Noragric – Department of International Environment and Development Studies

NRK – Norwegian Broadcasting Corporation (Norsk rikskringkasting)

NSD – Norwegian Centre for Research Data guidelines (Norsk senter for forskningdata)

NTL – the Norwegian Civil Service Union (Norsk Tjenestemannslag)

OECD – The Organisation for Economic Co-operation and Development

RQs – Research Questions

SDGs – Sustainable Development Goals

SSB – Statistics Norway (Statistisk sentralbyrå)

TEKNA – the Norwegian Society of Graduate Technical and Scientific Professionals (Teknisk-naturvitenskapelig forening)

UN – United Nations

WTR – Work-Time Reductions

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1 Introduction

Scholars and researchers argue that long working hours negatively affect peoples' health and work-family conciliation (Costa et al. 2006; Åkerstedt et al. 2003), leisure time (Schor 2005; 2008), the economy and unemployment rates (Golden and Figart 2013) as well as climate and the environment (Kallis et al. 2013; Pullinger 2014; Schor 2005). Authors in this line of thinking point at Work-Time Reductions (WTR) as a possible contributing solution to improve sustainability indicators reflected in the Sustainable Development Goals (SDGs), such as improvement of life quality and reduction of environmental impacts (e.g. Golden and Figart 2013; Holmøy and Strøm 2014; Kallis et al. 2013; Nässén and Larsson 2015; Schor 2005; Zwickl et al. 2016).

Historical trends show that annual human working hours around the world have gradually declined throughout the 20th century after being on its peak in the middle of the 19th century (see figure 1) (Lee et al. 2007; Schor 2005). However, the speed of reduction in working time has slowed down over recent decades (Schor 2005). Despite this decline, several developed countries and societies are considering further WTR (Kallis et al. 2013). Over a lifespan, WTR can come in various forms. It may be achieved by either reducing the number of working hours per day, the number of working days per week, the number of working days per year (e.g. through increased vacation, holidays and/or parental leaves), by reducing the number of working years within a life span (e.g. through regulations on retirement age), or through different combinations of the previous options in terms of flexibility. Additionally, WTR policies could either be implemented for the entire workforce or just for certain sectors (De Spiegelaere and Piasna 2017).

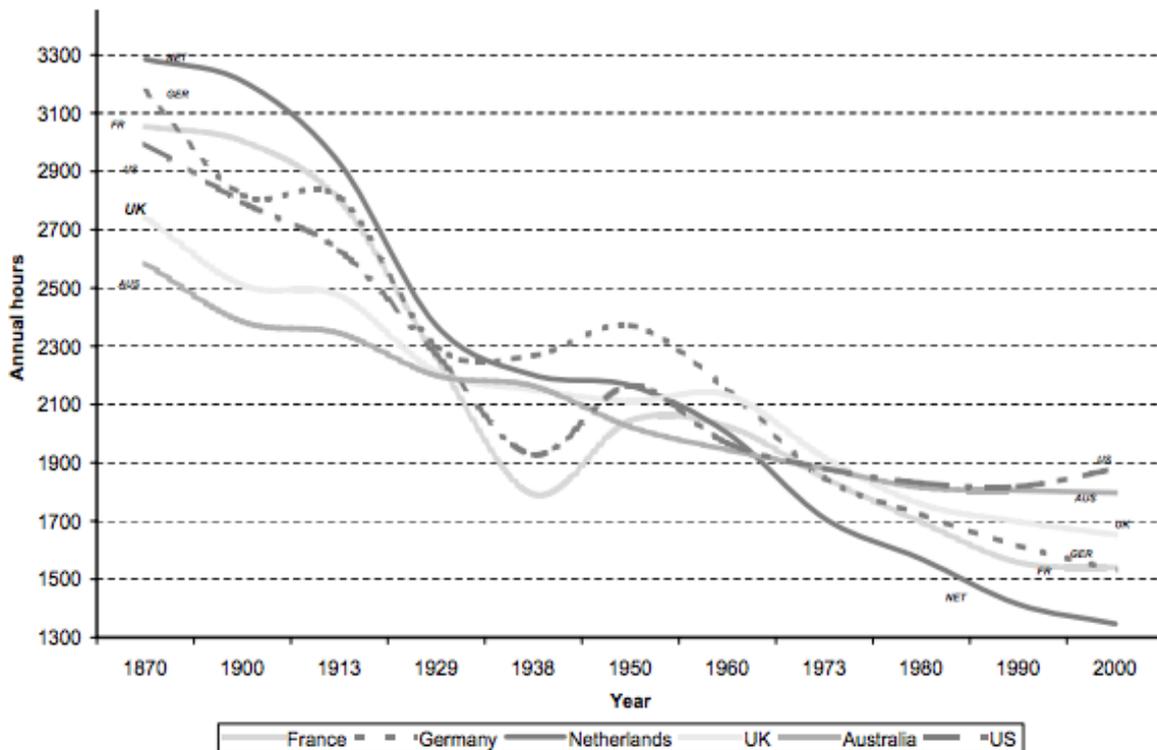


Figure 1: "Historical trend in annual working hours in selected countries (1870-2000)". Source: Lee et al. 2007:25

Although the reasons for wanting to implement WTR policies are varying, there is often an occurring societal dilemma when the topic is debated: Should future increases in work productivity be invested in further growth and purchase power, or should they rather be invested in WTR to gain leisure time? In European countries a prominent aspect of the debate regards whether it is *increased* or *reduced* working hours that will be the best design for maintaining welfare states (Finansdepartementet 2013; Holmøy and Strøm 2014; Schor 2005). The dominant narrative among political leaders and the business sector is that working time will have to increase in the future if welfare states are to be maintained in the face of an ageing population (Finansdepartementet 2013).

A growing body of literature discusses how working hours could be adjusted in order to tackle key policy challenges, including 1) human health and well-being in context of increasing rates of stress and mental and physical health problems (Cheng et al. 2014; Costa et al. 2006; Folkvord and Wergeland 2008; Åkerstedt et al. 2003), 2) expected raises in unemployment from the growing automation of work (Ford 2015; Gerold and Nocker 2017), and 3) environmental pressure in the context of global climate and other environmental changes from ever growing production and consumption (Kallis et al. 2013; Pullinger 2014;

Schor 2005). Hence, WTR are suggested as a possible strategy to enhance social, economic and environmental sustainability by improving quality of life and reducing environmental impact.

1.1 Aim and research questions

The aim of this thesis is to advance our understanding of the feasibility of implementing WTR as a policy to improve quality of life and reduce environmental impact in developed countries.

With this aim in mind, the thesis will use the case study of Norway to pursue the following specific objectives:

1. To assess the scope for advancing WTR policies in a developed country setting.
2. To assess the popularity of WTR among concerned stakeholders and their level of support or resistance to different variants of this policy.
3. To understand the broader socio-economic considerations and structural factors that need to be taken into account for a successful implementation of WTR.

In pursuing these goals, the research will be guided around five research questions:

1. What are the main barriers and opportunities for implementing WTR policies?
2. Who would benefit the most from WTR and who would bear the costs?
3. What is the level of support for WTR policies among affected stakeholders?
4. How would support to/rejection of WTR policies change across alternative WTR scenarios (e.g. 35, 30, 25 or 15h/week) and WTR options (e.g. shorter workday, shorter workweek, longer holidays/parental leaves or earlier retirement)? What are the reasons underlying this support or lack therein?
5. Are there any structural factors or premises that need to be in place before it is possible to implement WTR policies? Which ones?

The thesis contains seven chapters, which is organised as follows: Chapter 2 contains theoretical framework and relevant background information to the topic of WTR. Chapter 3 provides context information relevant to the case of Norway, which is used as a case study to test the feasibility of WTR implementation in a developed country setting. The methodology used in this study is described in Chapter 4. Chapter 5 presents the relevant findings, while chapter 6 is discussion. Finally, the research is concluded in chapter 7.

2 Theory and background

2.1 Sustainability science and the critique of growth

Sustainability science seeks to tackle the long-term challenge of sustainable development, understood as integrating “society’s development goals with the planet’s environmental limits” (Clark and Dickson 2003:8059). Thus, sustainability science focuses on the relationship between nature and society and its interactions. It emerged as an approach to advance sustainable development during the 1980s and 1990s. Because of its focus on interactions between different fields of knowledge to tackle sustainability problems and solutions, sustainability science is typically classified as an approach of interdisciplinarity. This approach strives to develop a common set of languages, concepts and a common ground that draw upon different elements in various disciplines to better understand a field (Vedeld 1994:10). As illustrated in figure 2 sustainability science focuses on the relationship and interaction between society, the economy and the environment.

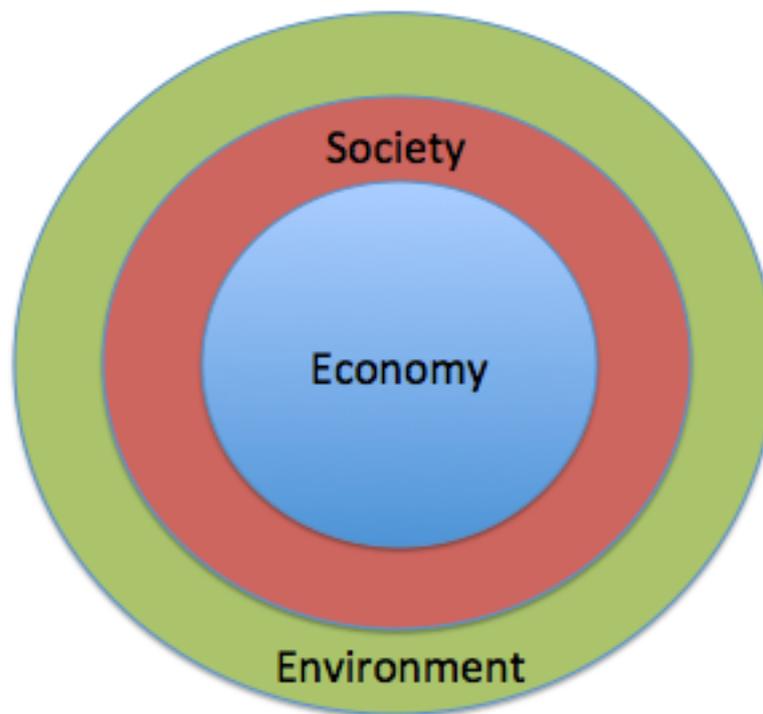


Figure 2: "The green economics paradigm". The economy operates within society, and the whole society is within nature. Source: Redrafted from Scott Cato 2009:37.

In order to create a common understanding of sustainability, Kates et al. (2001) emphasise the need for including knowledge and key processes of the three fields across different scales and from local to global perspectives. These fields include both natural and social sciences with

elements from politics, technology, ecology, economy as well as human behaviour and lifestyles (Clark and Dickson 2003; Kates et al. 2001).

A core theme in sustainability science is to evaluate how activities in society and the economy affect the environment. It is then timely when scholars and others ask whether we are starting to trespass and approach limits with no points of return (Costanza et al. 1997; Raworth 2017; Rockström 2009; Vatn 2015). Rockström et al. (2009) have explained how several planetary boundaries have already been overshoot because of human-nature interaction (Steffen et al. 2015; Vatn 2015). This is also addressed in the latest reports published by the UN-led Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). IPCC published in October 2018 a special report that addressed the global impacts if we do not limit global warming to 1.5°C, which can lead to negative consequences such as on biodiversity, ecosystems, food security, tourism as well as increased frequency on extreme events (IPCC 2018). In May 2019, IPBES published a Global Assessment Report on Biodiversity and Ecosystem Services where they estimate that one million species are threatened with extinction, including both animals and insects. They furthermore address the need for protection of biodiversity on land, in marine and freshwater ecosystems as well as in cities (IPBES 2019).

Kate Raworth (2017) draws parallels to the planetary boundaries when addressing the greatest challenge of the 21st century; that humanity should move into an ecologically safe and socially just space. She describes how we are far beyond the social and environmental boundaries, despite the fact that human well-being has improved over the past 70 years. However, as Rockström et al. (2009) point out, we are among the first generations to be aware of what is happening so that we can act towards a more sustainable society. Raworth, moreover, highlights the Sustainable Development Goals (SDG's) as an attempt of moving into this safe and just space (Raworth 2017). Clark and Dickson (2001:8059) emphasise thus how the challenge of sustainability science is “the reconciliation of society's development goals with the planet's environmental limits over the long term”.

One of the main aspects to be discussed in relation to transgressed boundaries is whether it is sustainable to constantly strive for economic growth. Costanza et al. (1997:12) define this as “increasing material consumption” (Costanza et al. 1997; Vatn 2015; Raworth 2017). Mainstream economics consider economic growth (GDP) as the central objective for

achieving social prosperity. Raworth (2017) refers to the market relationship between businesses and households and “how income flows round the economy” (Raworth 2017:62). Through labour and capital, households earn income based on wages and profits that they spend purchasing goods and services from firms. The flow of income is thus brought to life by the interrelationship between production and consumption (Raworth 2017). Hence, working time, as part of labour, is seen as an important factor for earning income that could flow round the economy.

As the economy grew, there were emerging consequences from the interaction between the three important aspects of our planet; economy, society and the environment. Thus, Costanza et al. (1997) suggested the need for the concept of economic growth to be revised. They furthermore emphasised the interdependence of the three planetary aspects and that “we need to move from an economics that ignores this interdependence to one which acknowledges and builds upon it” (1997:12-13). These thoughts led to the outspring of ecological economics, which was introduced by Herman Daly, among others, as well as the Club of Rome during the 1970s (Raworth 2017:74). Costanza et al. (1997:13) point out how this was a “return to the classical roots of economics”, despite the need of a paradigm shift. Ecological economics mainly differs from neoclassical in regards to the portrayal and interpretation of how the economic system works and interacts with the environment. The neoclassical portrayal separates the physical environment from the economic system, and thus illustrates the environment as something placed on the outside of the system. However, ecological economics view the economic system as integrated and embedded within the environment (Vatn 2015).

In line with this way of thinking, Degrowth/postgrowth and green growth are other relevant aspects worth mentioning. Degrowth is a term that emerged in 2008 as a continuation of the critique of the growth society from the 1970s. Described as a “revolutionary idea” (D’Alisa et al. 2014:xxv), degrowth is about transforming our ways of producing and consuming, and furthermore about how we could reduce our production and consumption substantially in order to decrease environmental pressures. Hence, WTR are often among the main policy proposals suggested by degrowth/postgrowth advocates, because it is seen as a way of reducing production and consumption (Ashford and Kallis 2013; Kallis et al. 2013). Nevertheless, green growth has a slightly different approach. The OECD defines green growth as something that fosters “...economic growth and development, while ensuring that

natural assets continue to provide resources and environmental services on which our well-being relies,” (OECD 2019a). Economic growth is thus here seen as something compatible with protection of the environment. Hickel and Kallis criticise this aspect when they call green growth a “misguided objective” (2019:1) as they find no empirical evidence that economic growth can have an absolute decoupling from resource use and carbon emissions.

It is advantageous to evaluate how social and economic aspects of production and consumption affect the environment. Thus, advocates for degrowth/postgrowth often point to WTR policies as a way of stabilising the levels of production and consumption as to avoid further environmental degradation. However, in order to achieve this degradation, the relationship between the levels of income and levels of production and consumption needs to be further explored (Shao and Rodríguez-Labajos 2016).

2.2 The case for reduced working time

Advocates for WTR often refer to a handful of well-known theorists and economist who have previously spoken warmly about the relationship between work and leisure time. One famous economist that is frequently mentioned is John Maynard Keynes and his predictions of the greatest fear for the year 2030: leisure (Keynes 1933, cited in Bregman 2017; Tveitereid 2018). He described leisure as “a longed-for sweet – until you get it” (1933:367-368), and added that since people were so used to working, they would simply not know what do to with freedom. Additionally, Keynes speculated that by 2030 the standard of living in the Western world would be at least fourfold the level in 1930, and furthermore proposed that people would work 15-hour weeks (Keynes 1933, cited in Bregman 2017). A century and a half before him, Benjamin Franklin predicted that four hours of work each day would be enough. Beyond that working time, he claimed life should be spent on leisure (Bregman 2017). The British philosopher John Stuart Mill discussed how the best way to spend wealth was on more leisure time, and that technology should be used in favour of restricting the working week (Mill 1848, cited in Bregman 2017). Employers and businessmen of those times often mentioned how they were afraid that leisure would only increase crime rates (Hunnicut 1984) and lead to laziness and mental issues among people (Bregman 2017). As a contrast, Paul Lafargue (1904) argued how laziness was important for progress of humanity, and furthermore characterised work as something that transformed machines into “...an instrument of enslavement for free beings” (Lafargue 1904:23).

Henry Ford, businessman and founder of Ford Motor Company, was the first to introduce the five-day workweek. At first people thought he was crazy, before following his footsteps by giving their workers two days of leisure at the weekend (Bregman 2017). Ford saw a rested worker as a more productive worker, and furthermore argued that more leisure would lead to higher sales and consume of his cars. A contemporary businessman, Carlos Slim has advocated a 3-day workweek as a way of handling unemployment from greater technology and avoiding early retirement (Laya 2016). However, André Gorz has a contradicting way of looking at unemployment. As another WTR advocate, he describes his thoughts on the current work ideology and ethics as “obsolete” and characterises it as a “crisis” (Gorz 2010:219-220): He highlights the many politicians, on both wings, who urge us to work more in order to solve unemployment. Furthermore, he emphasises how current work ideology insists that the more we work, the better it is, and additionally how people who work less are acting against the community (Gorz 2010). Nevertheless, Gorz point out how working less can contribute to work-sharing, and thus solve unemployment.

2.2.1 WTR and sustainability

The literature on WTR suggests that it can be a potential solution for major challenges of the 21st century by: 1) protecting human health and well-being in context of increasing rates of stress and mental and physical health problems (Cheng et al. 2014), 2) preventing unemployment that rises, also from the growing automation of work (Ford 2015), and 3) reducing environmental pressure in the context of global climate and other environmental changes from ever growing production and consumption (Gerold and Nocker 2017; Pullinger 2014), These three challenges are furthermore related to improving three dimensions of sustainability; social sustainability, economic sustainability and environmental sustainability, in order to improve quality of life and reduction of environmental impacts.

2.2.1.1 Social sustainability

Perhaps one of the most common and discussed challenges in relation to work, employment and social sustainability is the strained relationship of work-life-family balance and conciliation. This is something that an increasing amount of people in the developed world can relate to (De Spiegelaere and Piasna 2017). Costa et al. (2006) state that this relationship needs to take into consideration the variety of workers, being younger, older, women, families, income levels and expertise, as well as their social interactions such as leisure time activities and consumption patterns. De Spiegelaere and Piasna (2017) emphasise the challenge of achieving this balance because of the unequal division between working 40

hours a week combined with unpaid household work, as well as engaging in hobbies and social activities. This is particularly challenging for women, but also an issue for men. Albertsen et al. (2008) analysed the relationship between long working hours and work-life balance. They found strong evidence that unconventional working hours negatively influenced work-life balance. Long hours were also associated with a lower standard of work-life balance among women. Although results also showed a support among men, they were less precise. They found some supporting evidence that long working hours had negative effects on the well-being of children. Additionally, their results reveal that increased influence on own work schedules as well as WTR with wage compensation have positive impacts on social life indicators (Albertsen et al. 2008). De Spiegelaere and Piasna (2017) claim it is not just the amount of working hours that affect work-life balance, but also the amount of overtime, work schedules, time pressures as well as what kind of job people have. Moreover, they highlight that it is not given that WTR in itself will improve work-life balance for all workers, there is also a need to take gender aspects into account in order to avoid further inequality among men and women (De Spiegelaere and Piasna 2017).

Working time can also be seen in relation to influencing increased risks of physical health troubles, as well as rates of stress and general well-being. Several studies show correlations between incidence of diseases, injuries, stress and longer working hours where working time is seen as a risk factor (Cheng et al. 2014; Costa et al. 2006; Dembe et al. 2005; Virtanen et al. 2011). Nevertheless, these correlations were found to be more common with working hours exceeding 50-60 hours per week (Cheng et al. 2014; Virtanen et al. 2011), as compared to 35-48 hours. Cheng et al. (2014) found that long working hours contribute to higher risk of cardiovascular diseases, particularly for men. Dembe et al. (2005:688) found that workers with overtime work have 61 % higher risk of injuries compared to jobs without overtime. Additionally, they found that workers who had 12-hour days, or longer, had 37 % increased risk of injuries, while people who work at least 60 hours per week had 23 % higher risk. Costa et al. (2006) found that long hours of heavy physical work is seen as a significant factor for fatigue, musculo-skeletal disorders, trauma, injuries, anxiety, sleep troubles and heart diseases.

In addition to work-life and family conciliations and physical health troubles social sustainability also include aspects of health, happiness and well-being of people. Landes et al. (2015) describe different ways of defining 'happiness', and highlight definitions that separate

between 'affective' happiness and 'evaluative' happiness. The 'affective' happiness relates to the presence of positive feelings, such as joy and pleasure, and the lack of negative feelings such as pain and sorrow. The 'evaluative' happiness relates more to the positive judgment people conceive in their own life. While this type of happiness is looked upon as stable and less prone to adaptation, the 'affective' happiness is more momentary and open to adaptation because of its concept of 'fleeting feelings' (Landes et al. 2015:11). In this line, it appears working time, and thus having a job, relate most to the evaluative happiness, although the affective happiness might occur during various moments at work.

Pullinger (2014) points towards a possible uneven relationship between paid work, working policies and leisure time. Costa et al. (2006) found that flexibility of working hours could lead to results of improved health with less stress and improvement of psychosocial well-being. They furthermore found that flexibility of work-hours, physical work and age are among the most important factors influencing health and well-being. The European Agency for Safety and Health at Work (EASHW) found a direct correlation between stress and burn-out and long working hours (De Spiegelaere and Piasna 2017; EASHW 2009). Virtanen et al. (2011) found that working long hours increases development of depression and anxiety symptoms in women. De Spiegelaere and Piasna (2017) emphasise how time and efforts accomplished at work needs to be compensated through recovery, and that time off via leisure time is important for recovery and thus improvement of well-being (Sonnetag 2001). They moreover claim it is not enough to reduce working hours to achieve a reduction of stress and burn-out without simultaneously looking at workload intensity that create time pressure (De Spiegelaere and Piasna 2017). Costa et al. (2006) indicate that time pressure is an additional factor with relevant influence on individual stress and social life. If workload is not reduced hand-in-hand with the reduction of working hours, then this might create rebound effects through increased time pressure that will further increase cases of stress and exhaustion among workers.

Åkerstedt et al. (2003) conducted a quantitative study on how working hours influence health and moreover how flexibility can help sustaining working life to retirement. They mainly refer to 'flexitime' when they talk of flexibility, which is defined as "the ability to vary the time for starting or finishing work according to the individual needs" (Åkerstedt et al. 2003:3). Although they point out there is little systematic research on the connection between influence on work-hours and health, they still found correlations and supporting evidence

between certain relationships that stand out in regards to work and health. They found that unpaid overtime work hours combined with force or the lack of pleasure at work will likely influence people to quit the workforce before reaching normal age of retirement. Low influence over own working hours, irregular working hours with night shifts as well as varied lengths of shifts were all associated with quitting work due to mental strain. Low influence over work-hours also correlated with a higher risk of sick leave, both short- and long-term (Åkerstedt et al. 2003).

Folkvord and Wergeland (2008) studied the relationship between sick leaves and WTR. They criticise the use of sick leave as a measure of health, work environment and inclusion, and thus the successfulness of WTR policies. Moreover, they claim this is wrong. Usually, with an implementation of WTR there could be a short-term decrease of acute sick leave. However, the long-term effects show an increase of total sick leave. To explain they emphasise the reason why certain workplaces have low rates of sick leave: Some workplaces might ‘get rid of’ the factors that usually keep the rates on a high level, which are workers with health problems and all workers above the age of 55. Additionally, these workplaces typically avoid employing such workers during new recruitments (Folkvord and Wergeland 2008:71). However, with WTR, and in the case of a six-hour workday, total rates of sick leave will likely increase. The authors explain by emphasising that WTR will include a higher number of workers. This includes elderly and those with health problems, so they can manage to stay longer in the workforce. Moreover, long-term sick leave is due to serious illnesses and chronic pains that will not disappear just because of two years with a six-hour workday, which has been the most common time period of WTR trials. However, long-term sick leave might decrease after several years of working six hours.

2.2.1.2 Economic sustainability

According to the UN, the Sustainable Development Goal 8 is to “promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all” (UN 2016). Furthermore, the UN elaborate: “Sustainable economic growth will require societies to create the conditions that allow people to have quality jobs that stimulate the economy while not harming the environment” (UN 2016). From this perspective, economic sustainability seems to involve the process of keeping economic growth sustainable, without compromising environmental sustainability. However, a growing body of literature suggest that economic growth and environmental sustainability may be difficult or impossible to

harmonize (Hickel and Kallis 2019). From a degrowth or postgrowth perspective, economic sustainability could also solely involve stability in macroeconomic indicators, such as employment rates, without focusing on the aspect of economic growth (Ashford and Kallis 2013; Costanza et al. 1997; Raworth 2017; Zwickl et al. 2016).

Ford (2015) makes a vital aspect of work and employment in the 21st Century when he describes the fundamental shift in the era of technology we are currently in: machines go from being tools for workers to increase productivity to becoming workers themselves. He emphasises the enormous speed in the development of computer power and technology and how society and the labour market might not be fully prepared for the consequences of this speed. This could thus cause high rates of unemployment. The jobs that are most likely to be affected by machines are the ones that Ford calls “routine” or “predictable” jobs and lower-paid jobs. If a job is relatively easy for someone to learn by repeating and studying the tasks, then it is likely that algorithms can learn these routines and in the future take over jobs that were held by humans. Nevertheless, there are two work sectors that this technological development would not affect so much, at least for now: higher education and healthcare sectors. As this transformation will develop companies of newer industries, such as Google and Facebook (Ford 2015), will start to hire fewer people and still manage to be influential and achieve high market values. This transformation will eventually put pressure on societies and economies, also together with other challenges including aging populations, climate change and resource scarcity. Potential consequences of these challenges may include increased inequality and technological unemployment, and Ford wonders: “Can accelerating technology disrupt our entire system to the point where a fundamental restructuring may be required if prosperity is to continue?” (Ford 2015: xii-xviii).

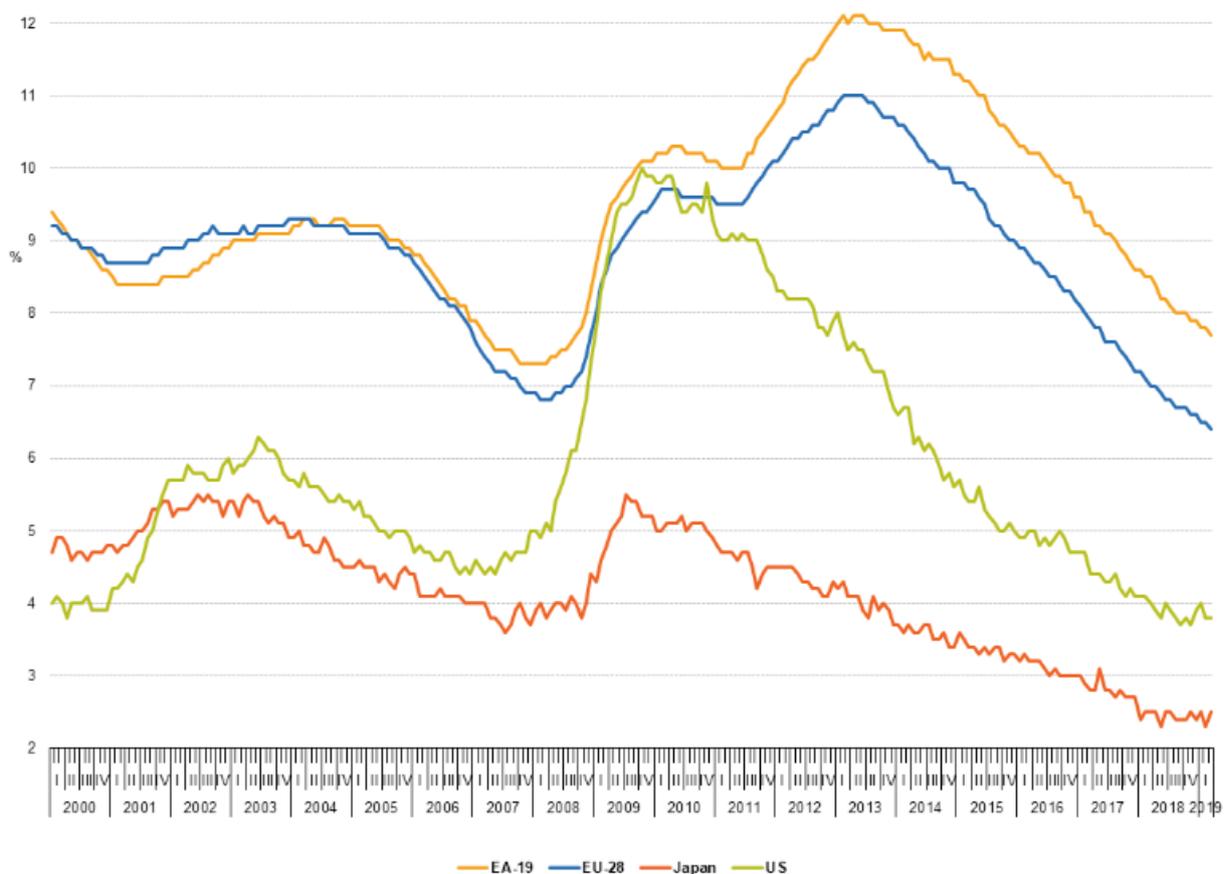
When employment and WTR are discussed in relation to economic sustainability, it is common to discuss WTR in terms of work-share and how to achieve this within a sustainable economy (Ashford and Kallis 2013; Zwickl et al. 2016). Work-share can primarily happen through two strategies: 1) dividing all fulltime jobs into shorter fulltime jobs, or 2) dividing a certain amount of fulltime jobs into two-three part-time jobs. Perbost (2011:28) explains how the first strategy prioritises the total number of jobs, while the second favours individual quantity of work. The topic of work-share often regards whether it can actually contribute to higher employment rates or increased unemployment (Zwickl et al 2016). Ashford and Kallis (2013) emphasise two argumentative sides in the work-sharing debate; economists and

environmentalists. Economists are usually unconvinced when it comes to WTR, while environmentalist usually applaud it. What economists are ultimately concerned with is that WTR will lead to less work in the long-term, as they may lead to increased labour costs and restrain output. Environmentalists often argue that WTR might reduce consumption but also secure employment, even without growth (Ashford and Kallis 2013). However, to reduce environmental impacts, there might also be a need for a following reduction in income (Pullinger 2014; Schor 2005). In terms of the aspect of employment, Ashford and Kallis (2013) have a slightly different approach; they first of all argue that WTR might lead to short-term employment gains, however they argue for a four-day workweek but with increases in wages. This is unlike most other environmentalists and the most common opinion on the topic. Furthermore, they argue that instead of making employed people economically insecure, by giving them leisure time and reducing their wages in order to save the environment, people need “sustainable earning capacity” (2013:53). They claim that economists and politicians who are in favour of increasing working hours are wrong, but so are environmentalists who support WTR without taking into consideration the rebound effects of such policies.

The outcomes of WTR depend on several aspects (Ashford and Kallis 2013). First of all, it depends on how people spend their leisure time, whether through high- or low-consuming activities. Second, it depends on the effects that WTR have on labour costs and productiveness. Third, it is dependent on the total number of employees that would change with WTR and income, accordingly. Fourth, it depends on how WTR implementations vary by work sectors, occupations and firms (2013). When arguing for why WTR without a reduction in income might be good for employment, the economy and the environment, Ashford and Kallis mostly highlight the consideration for workers and their earning capacity to purchase services and goods. WTR should not happen at the expense of (poor) workers, even though it is also seen as a strategy to save the environment. To make WTR beneficial for the environment, they propose additional (social and) environmental policies, such as ecological taxes that can help people shifting consumption patterns to more environmentally friendly activities. They also emphasise the power of unions and their important role in processes of WTR implementation, which is also highlighted by De Spiegelaere and Piasna (2017).

Figure 3 shows the evolution of trends in unemployment rates the past 19 years in Europe, Japan and the United States. This scope is chosen to offer an insight into the Western world, which is the focus of this thesis in order to narrow it down. Europe is represented by countries in the European Union, through all member states (EU-28) and the euro area (EA-19), which are member states that have replaced their currency with the euro (European Commission 2019). Japan and the US represent their respective countries. The graphs show fluctuating rates since 2000, however from 2013 the rates gradually decline. Japan has substantially lower rates than both US and Europe. By the end of 2018 Japan had rates of 2.4 %, Europe 6.6 % and the US had 3.8 % (Eurostat 2019). Given the current trends of relatively low

Unemployment rates EU-28, EA-19, US and Japan, seasonally adjusted, January 2000 - March 2019



Source: Eurostat (online data code: une_rt_m)



unemployment rates in Europe and even lower in Japan and the US (Eurostat 2019; Trading Economics 2019), it might seem like Ford’s worries about technological unemployment are so far out of sight.

Figure 3: Unemployment rates in EA-19, EU-28, Japan and US from January 2000 to March 2019 (Eurostat 2019)

2.2.1.3 Environmental sustainability

A third challenge concerns environmental pressures from increased production and consumption, from both industries and households. There have been done various studies on how working time affects environmental impacts, although up until now most of them have had macroeconomic approaches. Knight et al. (2013) found that working time is significantly correlated with environmental pressures in 29 high-income OECD countries, including ecological footprint, carbon footprint and carbon dioxide emissions. They further suggest that this significant relationship “may be an attractive target for policies promoting environmental sustainability (Knight et al. 2013:698). Some of the studies claim there is a significant link between shorter work-hours and a decrease of environmental impacts, of which is mainly due to an associated reduction in income (Devetter and Rousseau 2011; Nässén and Larsson 2010; Pullinger 2014; Pullinger 2012; Shao and Rodríguez-Labajos 2016; Shao and Shen 2017).

However, there are also studies showing that shorter working hours lead to higher environmental impacts, in terms of more carbon intensive activities and use of time, controlling for income effects (Pullinger 2014:12; Shao and Rodríguez-Labajos 2016; Shao and Shen 2017). Shao and Rodríguez-Labajos (2016) found a significant relationship between working time and environmental impacts only in developed economies and not in developing countries. Their findings show a clear turning point from positive to negative effects in high-income countries after the year of 2000. The first time period (1980-2000) show positive effects and the second time period (2001-2010) show negative effects due to the rebound effect of energy-intensive activities (Shao and Rodríguez-Labajos 2016). Shao and Shen (2017) also found a shift in the relationship between WTR and environmental impacts from positive to negative when they examined 15 European countries from 1970-2010. King and van den Bergh (2017) analysed different scenarios in United Kingdom to see what WTR policy was most effective regarding reductions in greenhouse gas (GHG) emissions. They found that the best performing scenarios included a four-day workweek, which made it possible for employees to reduce commuting, and for companies to have less energy use. Nevertheless, with work-share without a reduction of days or hours and change of opening hours in shops and offices, an increased number of employees can in fact lead to more

consumption and commuting. Thus, this will not give environmental benefits (Ashford and Kallis 2013).

Pullinger (2014) explains how WTR could improve well-being of people and simultaneously reduce environmental pressures if the right conditions are in place. He explains this through the $I = PAT$ equation: I, impact = P, population, A, affluence, and T, technology. Schor (2005) explains how $I = PAT$ includes a correlation of working hours with consumption. The total environmental impact (I), driven by per capita level of consumption is seen as the product of total population (P). This is multiplied with average affluence (A) times technologies used to produce what is consumed (T) (Pullinger 2014; Schor 2005). The most influential aspect leading to reductions in I, would be a decrease in A below the level of what it would usually be without WTR (Pullinger 2014). WTR policies have historically happened with unaffected income, meaning that rates of hourly wages continued to increase after implementation of WTR. In order for reductions in A, then all or most productivity gains should translate into increased leisure time rather than wage increases. This means reductions in working time correspond with income reductions. In some cases, wage rates could be stabilised or have only slight increases for some instead of the usual full increase of hourly rates. This could be done to avoid further income inequality and negative effects on well-being and happiness (Kallis et al. 2013; Pullinger 2014). This is related to what kind of WTR policy design is chosen and will be further discussed in section 2.2.2. Essentially, to achieve a considerable reduction of environmental impacts, I, and avoid rebound effects, there is a need for stabilisation in affluence, A, in terms of working time and income. The rebound effect would be that people consume more energy-intensive activities with WTR, especially without reductions in income. This would have a negative effect on I (Pullinger 2014; Schor 2005). However, Schor (2005) points out that it has historically been challenging to gain support amongst employees for WTR policies with corresponding reductions in income.

Although WTR also has effects on P and T it is less clear to know to what extent and exactly how they are affected. Pullinger mentions how WTR has been used earlier to advocate higher birth rates in terms of beneficial parental leaves, which would give potential effects on P. Concerning T, WTR would give the most positive effects on I if it goes hand in hand with a change in T towards innovation and more effective, but also environmentally friendly technologies to produce and distribute the goods and services we consume (Pullinger 2014; Schor 2005). In 2005 Schor recommended people in the global North to choose a 'greener'

future containing a renewal of economic and social thoughts with focus on “quality of life, rather than quantity of stuff, with reduced worktime and ecological sustainability at its core” (2005:48). She moreover emphasised how our planet depends on the need for changing patterns of environmentally destructive and “consumer-driven growth” (Schor 2005:48). Although P and T is important for the IPAT-equation, this master thesis will mostly focus on the link between A, affluence and I, impact, given its scope and time frame.

In order for WTR to be effective for both well-being and environmental impacts, several additional policies could be implemented, including environmental tax reforms, investments in green research and development (Knights et al. 2013; Pullinger 2014:18). There is no guarantee that people will consume less materialistic goods and energy-intensive activities, but with additional policies there might be a better chance for improved environmental impacts as well as workers’ rights and earning capacity have been safeguarded (Ashford and Kallis 2013).

2.2.2 Variants of WTR

WTR can come in several different variants. The question often regards whether it is a reduction of the working day, week, month, year, life or a combination of these. As illustrated in table 1, WTR may be achieved either by reducing 1) the number of working hours per day, 2) the number of working days per week or month, 3) the number of working days per year 4) the number of working years within a life span, 5) through different combinations of the previous options in terms of flexibility. None of the options are treated as ‘the correct one’, because this is dependent on various aspects that differ across countries, societies, organisations and contextual factors (De Spiegelare and Piasna 2017; Kallis et al. 2013; Pullinger 2014).

Table 1: Variants of most common WTR

Reduce amount of hours per day	<i>E.g.</i> , six-hour workday	<i>E.g.</i> Tine cheese factory in Norway, Svartedalen retirement home in Sweden
Reduce amount of hours per week/month	<i>E.g.</i> , four-day workweek or part-time work	<i>E.g.</i> UK, Perpetual Guardian in New Zealand

Reduce amount of hours per year	<i>E.g.</i> , through extended holidays or additional leaves	
Reduce number of working years within life span	<i>E.g.</i> through adjusting retirement age or by having career breaks or parental leaves	<i>E.g.</i> In Norway it is possible to retire at age 62, although the normal retirement age is 67.
A combination of above options	In terms of flexibility	

Source: Own elaboration based on De Spiegelaere and Piasna (2017), Kallis et al. (2013) and Pullinger (2014).

The most prominent example when reducing amount of hours of a working day is a reduction to six working hours over a five-days week. Reducing the working week is often proposed as a reduction from five to four working days, however it can be further shortened. For example, Carlos Slim has suggested a 3-day working week (Laya 2016). It is also possible to shorten the working month to e.g. three weeks of six working days and then one week off (De Spiegelaere and Piasna 2017). Additionally, a reduction of the working week could also imply inclusion of part-time workers. When reducing working hours per year it can either happen through extended holidays or additional leaves. Reducing working years within the life span can include parental leaves, career breaks or adjusting the age of retirement. Work-share could be a consequence of several of these variants, as it opens for inclusion of more workers in the workforce. Flexibility opens up for a combination of two or more of these options. Pullinger (2014) explains how work flexibility through the life course can combine policies to help people organise their time and work preferences through all life stages, to improve people's sovereignty over own time (Klammer 2004), but also to redistribute work by supporting a comeback to the workforce after being absent for a period of time.

De Spiegelaere and Piasna (2017) point to how the different WTR options have different beneficial effects on various issues, such as on gender, employment and sustainability. They argue that a shorter working day and week are beneficial for work-life balance, because parents could enjoy more time with their children on a day-to-day basis, although, some people would perhaps prefer spending time with children through additional leaves. When evaluating whether WTR is beneficial for employment, they argue that a six-hour workday

might lead to more work-intensification than, additional leaves. The latter might imply replacement of employees or economic ineffectiveness if leaves are paid. Lastly, the benefits of the different WTR-approaches depend on what goal each policy has. If the aim is to extend working lives, then it will be more effective to offer leaves and career breaks rather than to adjust retirement age for earlier retirement (De Spiegelare and Piasna 2017).

Pullinger has come up with the “green life course approach” (2014:16), in which he lists two equity goals. They include 1) encouraging high-income households with WTR and reductions of income in order to decrease income inequality and environmental pressures, and 2) increasing economic support for those with lower-paid jobs so they also could afford WTR. One possibility is to provide those with minimum wage (less than average income) with a guarantee of WTR without loss in net income for a period of time, and instead receive financial compensation (LaJeunesse 2009; Pullinger 2014).

Kallis et al. (2013) make an interesting and important point when discussing variants and policies of WTR, which is whether there is talk of reduction of working hours per *worker* or per *person*. They emphasize how this is dependent of the objective of the WTR. If work-sharing is the objective, and not the total work reduction, it means there are fewer hours worked per worker but still the same amount of working hours per person. They furthermore address two emerging problems of the work-share objective: 1) Increase of environmental impact, and 2) partial unemployment if hourly wages are not raised (2013:1562). The former is discussed in part 2.2.1.2. The latter is a crucial point that can affect the outcomes of a WTR policy:

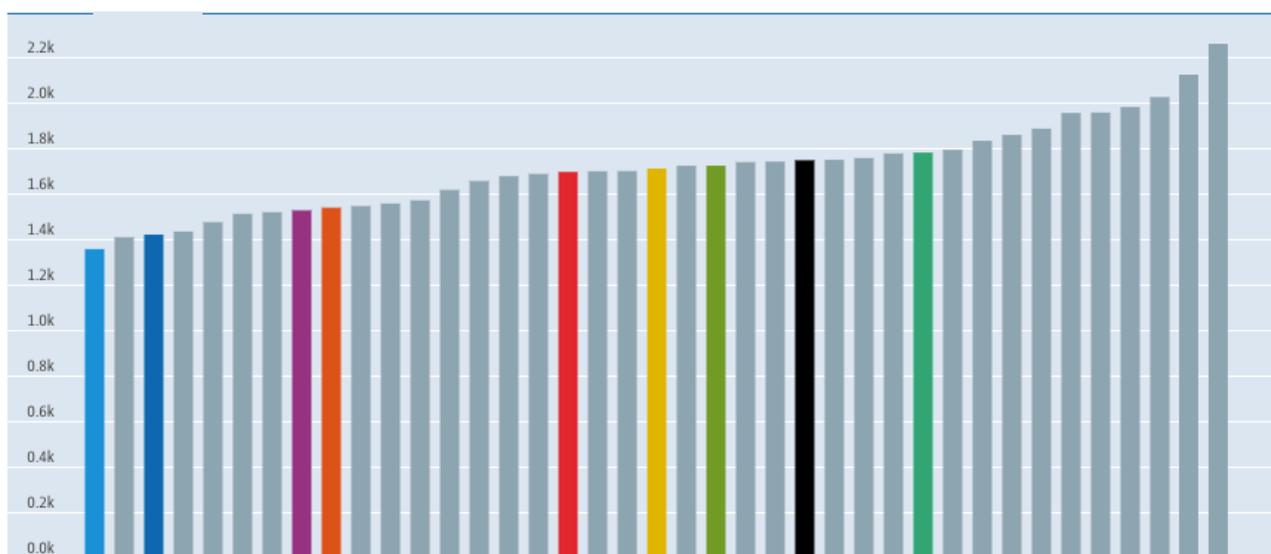
“There is a thin line distinguishing part-time work as an opportunity from part-time work as a punishment, and this basically has to do with the level of wage and the degree of choice, *i.e.*, the availability of full-time jobs” (Kallis et al. 2013:1562).

Nonetheless, this thin line becomes extremely important and crucial in the design of WTR policies to avoid implementation problems. Hence, it is something policy-makers should keep in mind.

2.2.3 Work-hour trends around the world

The literature describing work-hour trends in the world typically distinguishes between the developed and developing world, as they follow different patterns (Golden and Figart 2013; Kallis et al. 2013; Lee et al. 2007). Although industrialisation typically involves an increase of work-hours, it has been made the case that once a country becomes more productive and richer through economic growth, statistics show a decrease in working hours (Kallis et al. 2013; Lee et al. 2007; Voth 2000; Voth 2003). Schor (2005) exemplifies this by pointing to the relationship between capitalism and working hours. She mentions the early stages of capitalism in Great Britain in the 17th and 18th Century as a starting point for where working hours typically started to increase, and how this relates to the growth of markets. After this, the annual working hours continued increasing and eventually reached its peak in the middle of the 19th Century in Great Britain and United States. Around this time, organised labour started realising the exhausting effects of long work-hours, and thus began the desire to achieve shorter hours at work. Hence, annual working hours started declining as laws of maximum hours were implemented in response to pressure from unions (Lee et al. 2007; Schor 2005).

Generally, developing countries work more and longer hours than developed countries (Kallis et al. 2013; Lee et al. 2007; OECD 2019b). These trends are also apparent within the OECD countries. Figure 4 shows how less developed countries such as Mexico, Costa Rica and Korea work more hours on an annual basis than e.g. Germany, Denmark and Norway, although the US works more than many countries in Europe (OECD 2019b). Average weekly hours often range from 35 hours to 45 hours on a world basis. Lee et al. (2007) emphasise that a significant amount of developing countries often even exceed 48 hours. For instance, in the 2000s Costa Rica had 49 weekly working hours, while Norway had 36.3. This division does not necessarily mean that a country becomes rich by working fewer hours, however Kallis and colleagues point to a likely



relationship between working hours and the development phase of a country. They furthermore claim how working hours presumably decrease when a country transforms from being “industrialising to a more service, higher added-value economy” (Kallis et al. 2013:1548). Although Europe generally works fewer hours than the rest of the world, Schor (2005) highlights how the speed of the declining trend of work-hours slowed down between the years 1980 and 2000 in Europe.

Figure 4 : Annual working hours in the OECD in 2018 (OECD 2019b).

Kallis et al. (2013) highlight another historical trend regarding working hours, which is the introduction of WTR during crises, and particularly during economic crises. They exemplify this by referring to President Roosevelt and how he during the Great Depression in 1933 introduced a work-sharing program in the United States. Additionally, Roosevelt established the 40-hour workweek in 1936 that many countries in the developed world chose to follow (Lee et al. 2007). Brazil and Chile also introduced WTR during economic downturn in the 1990s (Kallis et al. 2013). Lee et al. (2007) point to the reduction of working hours during post-World War I and II. However, they emphasise that working hours have fluctuated during both economic progress and turbulence between 1929 and 1950. Although working hours at times have declined during turbulence, there are also periods where they show an uphill trend, for instance during World War II (Lee et al. 2007; Schor 2005). It cannot be claimed that WTR policies should be implemented during crises, however history tells us they have been introduced during such times before.

Huberman and Minns (2007) claim that reductions in work-hours per person are lower than per employee, and explain this by highlighting how many European countries have higher rates of workforce participation by e.g., women and part-time workers. A few examples of countries are the Netherlands, Germany and Norway. It might be difficult to know exactly why work-hours are low. Kallis et al. (2013) state it might be because WTR lead to work-share, or because part-time workers might have increased the workforce and made average working hours decline. Additionally, Europeans work more than the average percentage in certain countries. For instance, in Great Britain 25.5 % of employees work more than 48 hours weekly, in Greece 18.8 % and the Netherlands 7 % (Kallis et al. 2013; Lee et al. 2007).

2.2.4 Experiments with WTR

Various experiments of WTR have taken place around the world. Four of them are highlighted below to offer an insight into some of the accomplished effects and noted challenges: Netherlands, France, Sweden and New Zealand.

The experiments in Netherlands, which lasted from 1980 to 2017, were influenced by its high rates of part-time workers. Thus, it included a combination of voluntary and individual WTR on a mass scale, rather than collective policies (De Spiegelaere and Piasna 2017). The experiments were financed by employees through a reduction of income. With the large share of part-time workers, of which 76 % are women (much due to the absence of childcare), the average working week is less than 30 hours when including both full- and part-time workers. The WTR was designed as a four-day workweek. The example from the Netherlands shows that although they managed to put a lot of people to work, the additional worked hours were below average. De Spiegelaere and Piasna highlight how the Dutch experiment had “limited employment effect”, perhaps because fulltime workers in reality did not reduce their hours, but rather continued to work overtime.

France is a rare example where WTR policies have been permanently implemented by law. This implied a 35-hour week for all companies. The experiment lasted from 1998 to 2008. They did not reduce income, however they implemented a salary freeze for 18 months, and additionally reduced taxes for lower-paid workers. WTR in France led to job creation for 350.000-500.000 workers, however it is not clear whether it was because of WTR or in spite of it (De Spiegelaere and Piasna 2017). In addition, WTR led to a reduction of part-time workers, particularly for women, but men also reported more involvement in family responsibilities. A third observed effect was an increase in the employment rate of older workers, although the rate among older workers was low before the WTR implementation. Nevertheless, the French WTR has been questioned in terms of its goals and effectiveness, due to wide schemes regarding overtime work. President Nicolas Sarkozy rather favoured freedom to earn more money through more work, than freedom of leisure. Thus, a lot of people have ended up working more than 35 hours per week (Folkvord and Wergeland 2008).

The experiments in Sweden (2014-2016) involved implementing a six-hour workday for a period of 23 months in Svartedalen retirement home in Göteborg. It was fully financed by the municipality of Göteborg and overall aim was to see the long-term effects of a shorter

working day. The experiment contained political controversies from the beginning, as only some political parties were supportive and others strongly opposed it. The opponents claimed it was waste of public money. Additional workers were employed in order to meet the reduction in hours. The salaries remained the same for old workers, and the municipality paid salaries to new workers. One observed effect from the WTR experiment was considerable health gains for nurses, particularly for those over 50. Sick leave rates decreased immediately during the experiment for fulltime employees, but increased within the reference group. They also observed an improvement of quality of service, as staff did more activities with residents. However, it is difficult to state whether it was a consequence of the WTR. There was, however, an economic effect in terms of extra costs for extra staff to fill in on shifts. Since salaries stayed the same, no savings were made. Nevertheless, the immediate reduction of sick leaves led to some budget savings (De Spiegelaere and Piasna 2017).

One of the latest experiments that resulted in a permanent implementation of WTR, was when New Zealand financial service company Perpetual Guardian implemented a permanent four-day workweek of 30 hours in 2018. Salaries stayed the same, and workers reported improved work-life balance and reduced stress (Dobush 2019). They reported that productivity in fact increased 20 % (4dayweek 2019). The founder of the company, Andrew Barnes, claimed: “It’s not just having a day off a week – its about delivering productivity, meeting customer service standards, meeting personal and team business goals and objectives,” (4dayweek 2019).

3 Case study: Norway

To test the feasibility for further advancing reduced working hours in developed countries, this master thesis uses Norway as a case study. The aim is to discover whether the WTR and labour debates in Norway conform to literature on the topic, or whether discussions stand out in any way.

Norway is a suitable case for the purposes of this study because it is a developed high-income country, in which most WTR policies have taken place so far. As a Nordic country, Norway is also known for its policy efforts towards work-family life conciliation. According to statistics from OECD, Norway was ranked the second highest OECD country in 2018 with high work productivity measured as \$80.5 GDP per hour worked, only beaten by Ireland with \$86.2 (OECD Stat 2019). It could thus be argued that the high work productivity also makes Norway a suitable case for implementing WTR policies. Additionally, Norway was chosen because the undersigned is a resident of the country and also because of the current presence of the WTR debate in the public discourse. Although the country does not have comparatively high working hours (around 7,5-8 hours daily) (Arbeidstilsynet 2018), there are high rates of work-related stress compared to European averages (EU-OSHA 2013; NRK 2015). The last time a WTR was implemented was in 1986 (Arbeidstilsynet 2018; Folkvord and Wergeland 2008). While Norway is known for its advanced policies on work-family conciliation (NAV 2019), residents in Norway are also affected by the so-called “time-squeeze” (or in Norwegian: “tidsklemma”). This term entered the Norwegian language in the 1990s to describe the challenges of (not) having enough time to meet the expectations and commitments from work- and family life (Tjora 2017). It is particularly describing for parents with small children who struggle to make ends meet.

3.1 Working time in Norway

The Norwegian Labour Inspection Authority (Arbeidstilsynet) regulates work-hour limits in Norway. The law says that prevailing working time should be maximum 9 hours per day and maximum 40 hours per week. Jobs that require shift work have less maximum weekly hours (Arbeidstilsynet 2018). Weekly working hours and normal hours of work are today at 37.5 hours. Until this was negotiated through wage settlements in 1986, Norway had gone through different historical stages of working life. From an agricultural society, where work efforts were not measured in working hours but dependent on seasonal weather conditions, to a stage

where technology began to dominate workers. The industrial revolution changed working conditions and made workers more dependent on factory owners, the watch and machines through disciplined work.

Up until the last part of the 1800s, workers did not have much protection. In 1885 the Workers' Commission was established in order to promote labour protection (Folkvord and Wergeland 2008). The commission reminded of the challenges of setting aside enough time for family life, reading books and other leisure activities when average daily working hours were 11-12 hours each day. They wanted to legislate the ten-hour workday in order to release the workers from labour to spend time with family and increase their 'intellectual and moral level'. However, it was not until 1916 that the ten hours were legislated as normal hours of work. The common thought up until then was that working conditions, hours and salaries were private affairs and not something that the state should get involved in (Folkvord and Wergeland 2008:99). In 1919 the eight-hour workday was legislated. Hence, this was well before President Roosevelt established the 40-hour workweek in the US that many developed countries followed. To begin with, several shift workers, such as housemaids, hotel staff, waiters/waitresses and nurses were not included in the legislated eight hours in Norway.

Working time among Norwegians has been reduced by one third since World War II. Since the 1970's, men's weekly work-hours have been reduced from 44 to 37 hours. Women's hours are today 31 hours on average (Arbeidstilsynet 2018; Statistics Norway 2007).

Women's workforce are more characterised by part-time jobs than men's (Wergeland 2012), although The Norwegian Confederation of Trade Unions (LO) are striving to include more women in fulltime jobs (Statistics Norway 2007; 2017). De Spiegelaere and Piasna (2017) have made remarks about the distinction between actual working hours spent at work versus formally agreed working hours. The amount of actual working hours is often higher than what is formally agreed upon, commonly due to overtime work because of high workload (Folkvord and Wergeland 2008). This was also highlighted by Lee et al. (2007) and Kallis with colleagues (2013).

The Norwegian debate about the six-hour workday saw the first light in the 1920s. In the early 1930s LO began to demand for six daily working hours for shift workers, and maximum seven-hour workdays with full wage compensation for the rest (Folkvord and Wergeland 2008). The six-hour debate became widely established during the 1970s and 1980s. Ever

since then the momentum of the debate has fluctuated. From early stages in the 1970s and 1980s the main argument of the debate was to include more people (particularly women) into the workforce, as well as including more women in fulltime jobs. In 1985 the six-hour workday for all with full wage compensation was adopted into LO's plan of action, with 40% support among LO members (of which 70 % were women) (Folkvord and Wergeland 2008). Arguably, it was the peak of the six-hour movement in 1986 that led to the wage settlement on 7.5 normal hours of work in 1986-87. This is still in force today, but only in tariff and not by law. Although the six-hour workday has met resistance on its way, particularly by conservative politicians, some favour it as the next big reform in the Norwegian welfare state and working life (Folkvord and Wergeland 2008).

3.2. Current debates on WTR in Norway

Certain parts of LO have supported WTR policies for decades. The support towards the six-hour workday that grew over the 1970s and 1980s gradually continued in the following decades. In 2014 different voices of the six-hour movement formed a grassroots movement called the Action Committee for the Six-Hour Workday. They are still active today. The committee consists of women only, who advocate the six-hour workday with full wage compensation (Sekstimersdagen s.a.). Their main arguments appeal to the right of having fulltime work, more leisure time, less consumption, better life and improved climate and planet. They moreover argue that a six-hour workday could be realised and implemented through three wage settlements and collective bargaining: This means shortening the workday by 30 minutes in each settlement. The normal workday could then be reduced from 7.5 to six hours. Although they favour full wage compensation, particularly for the lower-paid workers, they state that some of the productivity growth could be translated into leisure time (Sekstimersdagen s.a.).

Across the political spectrum, the debate often regards whether we need to work more or less to maintain the welfare state. The Norwegian political right generally claims that there is no other option than to work more hours and years. Left-wing politicians are generally more open to WTR and often see it as being compatible with maintaining the same levels of welfare (Finansdepartementet 2013; Folkvord and Wergeland 2008; Wergeland 2015). Research and reports on the topic point to the time-squeeze and discuss WTR as a policy to tackle it. Leisure time is also viewed as a way of reducing unemployment rates through work-share (Omvik 2014). Despite this, politicians of the main political parties, representatives of the

business sector and most employer's associations in Norway mostly want Norwegians to work more in the coming years. They explain by arguing for the future needs and challenges of e.g. an aging population and keeping the pace of steady increases in income and purchase power (Finansdepartementet 2013). The arguments are often grounded in economic arguments. Opponents rather advocate increased work efforts to increase taxes that can feed into future public welfare than to look at WTR policies (Holmøy and Strøm 2014).

As of recent stances on the topic, the Norwegian Prime minister Erna Solberg, leader of the Conservatives party (Høyre), claimed in August 2018 that Norwegians might have to increase working hours to 43 hours per week to avoid cuts in welfare. She highlighted the future scenario of an increasing amount of elderly people and the lower contributions and growth from the oil and gas industry. Furthermore, she stated that the six-hour workday would dismantle the welfare state (Dagens Næringsliv 2018). The Labour party (Arbeiderpartiet) contradicted this and announced shortly after that they were willing to consider experiments with the six-hour workday. They offered to provide subsidies for companies who wish to try it as a way to tackle high rates of sick leave as well as rising unemployment. It is worth noting that current unemployment rates in Norway are at 3.5 % (Statistics Norway 2019), which is twice as much as 40 years ago, if still low relative to European standards (Eurostat 2019). The Labour party also suggested supporting follow-up research to find the effects of WTR policies (Sæther 2018). The political debate often revolves around the financing of such an implementation and policy, and whether it would compromise the welfare state as we know it today.

Statistics Norway published a report in 2014 called "Do we need to work more? Consequences of less material growth" (Holmøy and Strøm 2014). This report explores the scenario of six-hour workdays. It attempts to calculate how WTR would affect the Norwegian economy, the welfare state, and consumption patterns in the coming decades until 2060. The 2060-scenario was used to follow the same scenario made by the Norwegian Ministry of Finance in their White Paper (Perspektivmeldingen) from 2013 (published every fourth year). Every fourth year they address and predict future challenges for Norwegian economy in the upcoming 50 years, and thus how the government plans to solve them (Finansdepartementet 2013). Holmøy and Strøm's report views higher tax rates as a necessity for keeping the welfare state, but challenge the generalised assumption in the dominant policy discourse that increased working hours will be needed. In fact, findings of the report show that even with a

reduction in daily working hours from 7.5 to six hours, the overall consumption will still be nearly twice as much in 2060 compared with current levels (Holmøy and Strøm 2014). Their calculations also show that private consumption per capita will be 32 % lower in 2060 with WTR than it would be without. Hence, the trade-off between further leisure time and further consumption. Additionally, Holmøy and Strøm's (2014) findings show that it would be possible to maintain the same welfare system in 2060 even with reductions from 7.5 to six working hours. In order to avoid breaking the fiscal rule, their calculations state household incomes should be raised by 12 percentage points. Taxes will in fact need to be raised even without WTR, in which they predict would be with 10 percentage points.

In 2013 the Employer's Association (Spekter) conducted a survey among a representative sample of Norwegians, which included questions about taxes. 49 % said they would work more hours per week in order to maintain the welfare state, while 38 % said they would prefer a tax increase. 14 % were undecided (Spekter 2013). In 2017 they ordered a new survey about attitudes towards working time among a representative sample in the Norwegian population. 50 % of the asked said they would be willing to work longer until retirement in the future, to maintain the welfare state. There were not any differences between full- and part-time workers, however a larger amount of students (71 %) specified that they would consider staying longer in the workforce. The age groups under 30 and over 66 would be more willing to work until the age of 68, with 31 % in each. Six out of ten part-time workers would consider working more if they had more influence over own time, and a workday adjusted to various life situations. 52 % of all workers would consider working more hours per day in exchange for more days off, although this was more attractive to men than women, as well as age groups under 30. The survey did not include questions about taxes, as the one in 2013 did (Andersen 2017).

Some companies in Norway have tried the six-hour workday, however the trial periods have rarely been longer than two years. LO proposed an experiment of a six-hour workday (30-hours week) and encouraged companies to try this out in 2009 (LO 2009). Tine dairy cheese factory in Heimdal, a company who tested the six-hour workday already in 2007, are in fact the only ones who have made it a permanent policy in Norway (Folkvord and Wergeland 2008; Wergeland 2015). They saw an almost immediate improvement of work-life balance and still managed to keep same productivity rates with six hours as with 7.5. They kept the same salaries and number of employees did not increase. The reason why the experiment at

Tine Heimdal has been so successful is arguably because the management involved the employees in participation of the policy-design from the very beginning (Folkvord and Wergeland 2008; Wergeland 2015). Thus, participation of employees in such policy designs can be key.

LO has over time debated their position and priority on the topic. As with the Norwegian political parties, LO has had divided opinions inside the organisation (Omvik 2014, Sæther 2018). The advocates for WTR policies within LO have previously argued that they should come with wage compensations. Their plan for action 2017-2021 claims that they are going to develop a holistic plan during this time period for how to further work with WTR policies (LO 2017). They state that this plan should be based on the experiences from national and international experiments of the six-hour workday or the 30-hour workweek. So far, the plan does not mention whether future work should contain arguments of wage compensation (LO 2017).

Vangelsten and Temesgen (2014) conducted a study among Norwegian trade unions to determine who favoured more leisure time or higher salary. The different unions represented different parts of and occupations in Norwegian working life. They found there is disagreement among unions. For instance, the private sector has different viewpoints than the public sector. It seemed neither realistic nor desirable to advocate for WTR for majority of unions in 2014. The reasons given were varying, but the main arguments seemed to revolve around lower-paid workers and that they could be worse off with WTR if not compensated (Vangelsten and Temesgen 2014). Most unions saw the link between consumption, emissions and climate change. However, particularly two unions in the public sector were more worried about consumption patterns and its influence on emissions and climate change in the developed world than others. These were the Norwegian Union of Municipal and General Employees (Fagforbundet) and the Norwegian Civil Service Union (Norsk Tjenestemannslag – NTL). Two unions in the private sector were technology-optimists and did not believe a reduction of consumption patterns could be a solution to climate change. These were the Norwegian Society of Engineers and Technologists (NITO) and the Norwegian Society of Graduate Technical and Scientific Professionals (Tekna) representing engineers, natural scientists and academics. There seemed to be disagreement among the unions on how to best combat environmental challenges. At the point of debate in 2014 there were not many who identified WTR policies as a strategy to overcome this. The Norwegian Union of Municipal

and General Employees (Fagforbundet), as part of the LO-family, claimed that unions alone could not undertake climate responsibility because it will risk an escape of members (Vangelsten and Temesgen 2014).

The unions expressed that these strategies could not possibly happen without a thorough process with participation from the state and employers. Furthermore, most unions did not believe that employers and their associations would be supportive towards WTR policies. This was explained by the demands of increased productivity and competitiveness among companies in national and international markets. However, the Norwegian Civil Service Union (Norsk Tjenestemannslag – NTL) claimed that because of employers' interest in competitiveness, they could also be interested in WTR policies that would slow down wage increases. Perceptions of union managers were that climate and the environment were not typical motivational factors for workers who wished for WTR policies. The report therefore concludes that such a reform will probably need to widen its focus than to exclusively concentrate on working time. The focus should moreover be on combatting additional challenges in the economy and welfare, such as distributional issues. Additional strategies of reducing environmental impacts should also be determined (Vangelsten and Temesgen 2014). Thus, it would be essential to portray a future with reduced consumption patterns as an improvement for people's lives, in order to influence their will for change through WTR reforms.

At a conference arranged earlier this year (2019), the Action Committee of the Six-hour Workday discussed the option of cooperating more with the environmental movements in the future, in order to achieve improved and more realistic goals of WTR policies (Sekstimersdagen s.a.).

4 Methodology

This master thesis has used a mixed methods research design, which includes a combination of qualitative and quantitative approaches. Qualitative methods are often explained by seeking to understand words and meaning, while quantitative seek to find measurements and numbers (Berg and Lune 2011; Bryman 2016).

4.1 Data sampling

Data sampling consisted of three main stages. The first stage consisted of a comprehensive review of relevant literature, documents, media coverage and existing statistical data on national, regional and global work hours. Second, a stakeholder analysis was conducted to identify the main social actors concerned with the implementation of WTR policies, of which could be approached as potential informants for this research. The third stage contained collection of semi-structured interviews with 16 informants as part of the case study. This stage explored what WTR scenario would be most suitable and feasible for Norway. The time period for the master thesis spanned from March 2018 to June 2019, however the interviews were conducted between January 2019 and April 2019.

4.1.1 Collection of background information

To get an overview of the debate on work time reductions, a review of the knowledge and data on work-hour trends was conducted. The reviewed sources included books, policy documents, scientific literature, and media content, such as articles, podcasts and videos as well as other grey literature. Collected background information was used as the basis for conducting the stakeholder analysis and designing an interview guide. A generic purposive sampling strategy was chosen to conduct research for this study. Purposive sampling, or non-probability sampling, implies that the sample has been strategically selected based on criteria defined by the research questions and the aims of the researcher (Bryman 2016). This differs from probability sampling where the sample is more randomly selected (Bryman 2016). Moreover, the sampling strategy had an a priori approach (Hood 2007), meaning that the criteria for sampling were determined at the beginning of the research and did not evolve along the way (Bryman 2016). Additionally, the sampling had elements of a fixed and non-sequential approach (Teddlie and Yu 2007), as the sample was to a certain extent decided before the data collection started. However, as some informants were added to the sample as

the research evolved, the sampling strategy also included elements of the sequential approach (Teddlie and Yu 2007; Bryman 2016).

4.1.2 Stakeholder analysis

To identify who was going to be part the sample a stakeholder analysis was conducted. The stakeholder analysis was based on four criteria: i) awareness, ii) position, iii) interest and iv) power regarding WTR policies. The first criterion, ‘awareness’, was chosen as it would be essential in order to get relevant and useful information linked to the research questions. Thus, it was pertinent to look for stakeholders who all had certain awareness towards WTR. The second criterion, ‘position’, was chosen because it was relevant to find stakeholders that were both positive and negative towards WTR, in order to have variation among opinions in the sample. The third criterion in the stakeholder analysis, ‘interest’, was chosen in comparison to ‘awareness’ as it could be the case that certain stakeholders were aware of the topic of WTR, although not interested. ‘Power’, as the fourth and final criterion, was chosen to identify to what degree the stakeholders could influence decisions made on the topic. These criteria helped identify several stakeholders in order to conduct the right sample for data collection.

Table 2 shows the list of identified stakeholders relevant to the topic of WTR. Thus, the informants in this master thesis are based on this list. As informants are anonymous in this study, only their stakeholder group is identified in the stakeholder analysis.

Table 2: Relevant stakeholders to the topic of WTR.

Stakeholder	Role	Position towards WTR	Awareness	Interest	Power
Opinion influencers/thinkers /ideologists e.g.:	Writes/talks about the topic in books or op-eds.	Positive, negative	Yes	Yes	Low-medium
Trade and Labour Unions	Negotiate rights of employees in various working sectors	Positive, neutral, negative	Yes	Somehow	High
Employers’ Associations	Negotiate rights of employers in various	Negative	Yes	No-medium	High

	working sectors				
Political parties in Norway:	Positions (government) and oppositions who determine laws	Positive and negative	Yes/no	Yes/no	High to low
Norwegian population	Citizens of Norway who are employers and employees	Positive, neutral, negative	Somehow	Somehow	Low
Think tanks	Write and produce ideas about the topic	Positive, negative	Yes	Yes	Low-medium
Experts on relevant topics such as (social) economics, psychologists, doctors e.g.:	Researchers investigating WTR or relevant topics	Positive, negative	Yes	Yes	Medium
Organisations/other countries who have tried out reduced working time	Experimenters of WTR	Positive, negative	Yes	Yes	Medium-high
Universities	Research and supervision	Neutral, (positive, negative)	Somehow/ Yes	Yes	Medium

4.1.3 Semi-structured interviews

The semi-structured interview was chosen as a method to collect views and opinions on WTR policies. This type of interview allows for flexibility and for the informant to elaborate on their views, although the researcher is following an interview guide with already decided topics and questions (Bryman 2016). The main aim of the interview was to collect information required for answering the specific objectives and RQs.

16 interviews were conducted face-to-face between January 2019 and April 2019. The interview guide consisted of three parts (see appendix II). The first part contained general questions about work and working time. In this part, it was made clear that it would be most relevant to hear the professional opinions of the current workplaces, for instance those within a trade union or a political party.

The second part of the interview contained questions about barriers and opportunities regarding changing existing working time. These questions were slightly more advanced. Some of them were quite open, with one example regarding a question when the informant was asked to list advantages and disadvantages of changing existing working time. It was then up to the informant to talk about whatever advantages and disadvantages he or she identified with changing existing working time. This gave the informant an opportunity to take some lead to what direction the interview was going. Since the interview was semi-structured it was possible to ask follow-up and probing questions when natural. Semi-structured interviews also allow for the possibility to not always ask the questions in the same order in each interview, although the interviewer must make sure that all questions are asked. There were some questions that were more structured and close-ended items in the sense that they had response alternatives. The reason why the interview guide combined open and more close-ended questions was because there were some basic questions connected to the RQs that all informants were asked to give their viewpoints on for comparison. Thus, they worked better with close-ended questions better suited for the analysis. An example is a question relating to WTR implementations and how to best finance WTR policies. This question included response alternatives to give the informants an idea of the most common alternatives and ideas around the topic.

The third and final part of the interview included questions about the informant's personal views on working time in their own lives. The initial reason for including this part in the interview was to see whether the informants' political opinions, formed by their workplaces, differed from their personal ones. This was inspired by the data collection of background information, which revealed that this could be the case. Some informants did not wish to answer questions in this part.

A test pilot interview was conducted with a small pilot sample of informants (N=4), in order to find out whether they understood the questions, also in relation to question order. This was very useful as some of the pilot informants gave valuable input on how to adjust and improve the final interview before proceeding with the data collection.

The informants were contacted by e-mail that presented the research project and what their participation would imply through an attached document that followed the Norwegian Centre for Research Data (NSD) guidelines (see appendix I). Informants were given access to the

interview guide during the interview, as it made it easier for them to answer questions that included response alternatives. It was made clear that they were not supposed to fill out anything by pen, but rather answer through conversation. However, not all informants chose to look at the questions during the interview. There were four informants who did not have access to the interview guide, as they were treated as ‘experts’ that could be asked more detailed questions about a specific topic, for instance relating to health or economics. Nevertheless, they were asked the same questions as other informants. Before every interview the informants were provided with an introductory text that explained the context to prepare them for what type of questions to expect (appendix II). On average one interview lasted approximately 50-60 minutes.

4.2 Data analysis

To identify the main findings for the implementation of reduced working time policies in Norway, a thematic analysis was conducted based on the interview transcripts. All of the interviews were transcribed and imported into the program NVivo, which is often used to analyse qualitative data. Next, transcripts were coded in NVivo, which allows for organising codes into groups that gives overview of the data. The codes were reviewed and recoded through different stages, based on a mixture of relevant themes from literature, relating to the different dimensions of sustainability, as well as the prominent themes that emerged through interviews. Since codes were recoded several times, the data analysis had a grounded theory approach. However, it cannot be said this master thesis uses a grounded theory strategy, as the aim is not to come up with a new theory (Bryman 2016). Thus, NVivo provided the basis to identify relevant themes that could be counted, in order to find out how many of the informants shared, or did not share, the same opinions. All identified findings, such as barriers and opportunities were grouped and counted, before presented through diagrams and figures made in Excel. Hence, the method of quasi-quantification of qualitative data was used (Bryman 2016). The combination of the thematic analysis and counted themes of main findings presented through diagrams, represent the mixture of qualitative and quantitative approaches.

As the transcripts were in Norwegian, and the NVivo program was installed in English the counting was done manually.

5 Results

The results are divided into three main sections containing various diagrams based on findings from the semi-structured interviews. Section 5.1 presents findings in regards to the scope for advancing WTR policies in Norway. This includes identified barriers and opportunities with the implementation of WTR, along with findings on the scope for implementation in terms of relevant work sectors, realistic time frames and most realistic way/process of implementation. Section 5.2 presents support or lack therein for WTR among concerned stakeholders. This includes different preferences of scenarios of WTR, as well as personal considerations among informants. Finally, section 5.3 presents findings relating to socio-economic considerations for successful implementation of WTR in Norway.

5.1 The scope for advancing WTR policies in Norway

5.1.1 Barriers for the implementation of WTR

Figure 5 shows the 11 barriers that the 16 informants identified with the implementation of WTR.

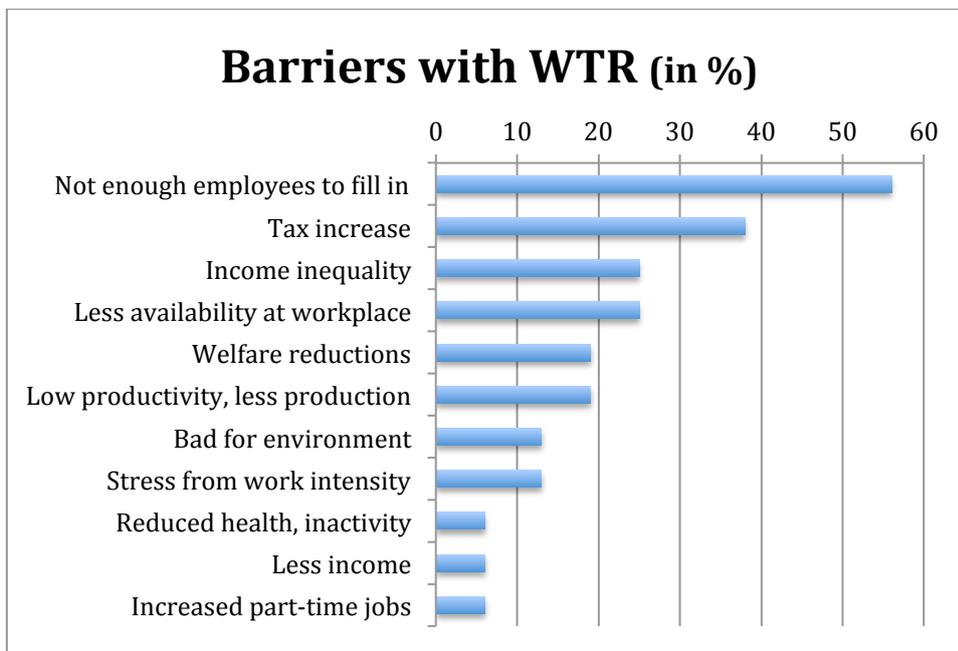


Figure 5: The bar chart presents 11 main barriers with the implementation of WTR, identified by informants.

The top perceived barrier, mentioned by 56 % of the informants, is with the implementation of WTR we will not have enough people to employ in order to fill in on all shifts, particularly in the public sector. The two most important reasons mentioned by informants were the low

unemployment rates of Norway, and the fact that labour is already imported from other countries. The second argument was the upcoming 'elderly boom', that will require more employees in the health sector. Some informants wondered whether it would be possible to shift labour from one sector to another. For instance, workers that may get displaced by automation may be absorbed by new demands in the health sector (informant 8). However, as other informants emphasised, to earn a job in the health sector demands both competence, gained through education, and tasks that are not suitable for everyone. Thus, this is not an easy fix (informants 4, 6, 14). Only one of the informants mentioned the growing automation and robotisation as a concern for the future. This implies that automation is not yet seen as a big concern for employment rates among informants.

The second largest perceived barrier to WTR implementation was 'tax increase', mentioned by 38 % of the informants. The main concerns are that 1) it would be problematic to gain support among the population for increasing taxes in order to finance WTR policies, and 2) it would be challenging to get political parties to advocate for increasing taxes. It was emphasised that politicians would rather gain support by saying we need to work more or longer in order to maintain the welfare state, given the unpopularity of taxes. The third identified barrier, mentioned by 25 % of the informants, concerned how WTR policies might lead to increased income inequality. This was seen to be particularly important in relation to whether the WTR policy is implemented with or without wage compensation. The barrier appears if the implementation happens without a compensation, particularly for lower paid workers. Another important barrier, mentioned by 25 %, was the fear that WTR would lead to less availability of workers at the workplace and offices. The informants see this both as a barrier for employers, but also for co-workers when they spend less time at work or in office. This would imply that it might become more challenging to schedule meetings and get a hold of people. As a result, it could have a negative influence on workflow.

Another barrier, mentioned by 19 % of the informants, is the risk of 'welfare reductions' as a consequence of implementing WTR policies. This concern implies that it will get too expensive to maintain the level of welfare as today if WTR policies were implemented, and that this would ultimately lead to less welfare for people. Some informants argued that this would be a tremendous challenge in relation to the 'elderly boom'. Informant 16 pointed out that people grew up with less welfare in the 1970s, but also emphasised that it would be different to lose something already gained. Informant 4, 8 and 14 wondered whether people

actually want the welfare state that we are building today, or whether it could be acceptable to reduce the level of welfare. The majority of informants, however, spoke of the welfare state and the high level of welfare as a priority.

Another 19 % mentioned low productivity as a barrier of WTR implementation, which again could lead to less production. Furthermore, this implies a concern that workers will not be able to accomplish the same amount of tasks with WTR, which again could affect the competitiveness of businesses to the international market because of lower production. 13 % mentioned the environment as a barrier. This would imply that WTR policies were implemented with wage compensations that would maintain or increase unsustainable levels of production and consumption. Maintenance or increase of purchase power would moreover imply a lead towards further environmental degradation. Another 13 % mentioned increased stress as a barrier of WTR, if actual workload is not reduced proportionally. In that case WTR would only lead to less time to do all work tasks, which again will cause more stress among workers. The last three barriers, each mentioned by 6 % of informants. The findings reveal that the least concerns in relation to WTR implementation regards 1) inactivity, which implies that people will not know what to do with the extra time gained from WTR, and thus become inactive resulting in reduced health, 2) WTR could lead to less income for both workers and companies (if it happens without compensation) because of less hours worked, and 3) implementation of WTR policies could lead to an increase of more precarious part-time jobs in order to fill in the extra shifts required as a consequence of WTR. This is furthermore related to the top barrier 'not enough employees to fill in'.

Although 6 % of informants identified increased part-time jobs as a barrier for WTR, many informants (63 %) identified part-time workers as a big challenge for Norwegian society. However, this was not always seen in relation to WTR. Therefore, it is not identified as a barrier for the implementation of WTR.

Thus, the results reveal that the main identified barriers among the informants mainly relate to a combination of economic sustainability (barrier 1, 2, 3, 5, 6, 10, 11) and social sustainability (barrier 3, 4, 5, 8, 9, 11) except for barrier 7, which also relates to environmental sustainability.

5.1.2 Opportunities for implementing WTR

The informants identified 14 major opportunities for implementing WTR policies (Figure 6).

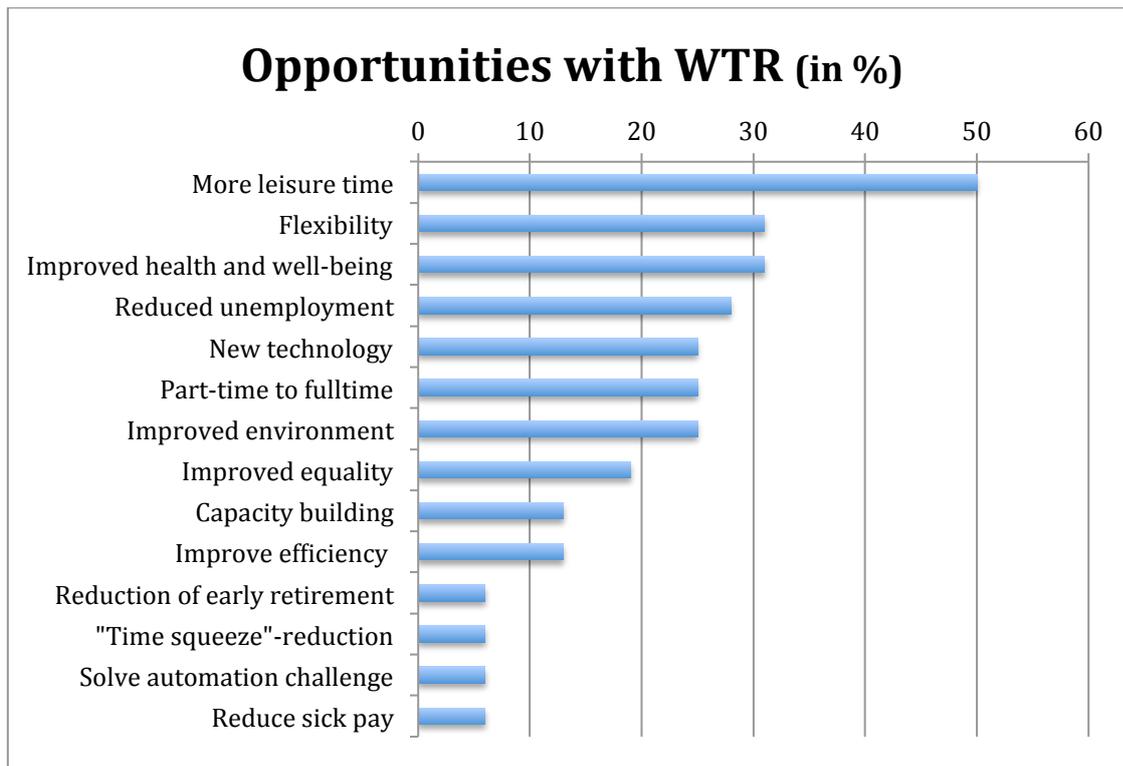


Figure 6: The bar chart presents 14 main opportunities with the implementation of WTR, identified by informants.

The opportunity that most informants mentioned (50% of total) was that WTR policies would lead to increased leisure time, thereby providing basis for wide societal support. Furthermore, this was identified as something positive among both proponents and opponents of WTR. However, opponents typically spoke of this option as something unrealistic. The two top second opportunities, each mentioned by 31 % of the informants was 1) WTR policies would allow more flexibility for workers, both at work but also in regards to work-life balance and family responsibilities, and 2) improved health and well-being, which would imply reduced stress for most people, as well as reduced physical health problems and injuries among workers with physical demanding occupations, such as caring and nursing occupations with heavy lifting. 28 % of the informants mentioned the opportunity of ‘reduced unemployment’, in terms of work-share. This opportunity moreover implied an inclusion of more people in the workforce, since working hours on average were reduced. 25 % of the informants mentioned ‘new technology’ as an opportunity with WTR, but mostly in relation to work-share and how new technology would contribute to new (and green) jobs.

Another 25 % of the informants identified the opportunity of how part-time workers would be able to get fulltime positions with WTR policies. The most prominent example given was in relation to the six-hour workday in terms of three aspects where 1) current part-time workers would likely be able to manage a fulltime job if hours are reduced from eight (or 7.5) to six hours, 2) current part-time workers would be able to get fulltime pay with WTR, and 3) current part-time workers would be able to get the rights and protection as fulltime workers.

An additional 25 % of the informants mentioned 'improved environment' as an opportunity with WTR policies. This implied that a WTR policy was implemented without wage compensation in order to stabilise or reduce production and consumption through less purchase power. Thus, this would be positive for the environment. 19 % of the informants mentioned that 'improved equality' would be an opportunity with WTR policies, of which relates mostly to the case of women and older employees that would get better benefits with WTR. However, this would imply wage compensations in order to avoid decrease of economic security for lower-paid workers that would furthermore increase the gap between average workers and the lower-paid.

13 % of informants mentioned 'capacity building' as an opportunity coming along with WTR. This implied that with the extra time, liberated from WTR, workers could spend it on further education and capacity building to improve skills and knowledge in their jobs. Some of the informants also saw this in relation to the growing automation and robotisation, which implied that workers would gain the opportunities of retraining and further education for new type of jobs, instead of becoming unemployed. However, the latter is less connected to the implementation of WTR policies. Another 13 % emphasised how WTR policies could improve efficiency at work. Some of the informants mentioned how they were more efficient when spending fewer hours at work/the office. In regards to this, it was mentioned how Tine dairy cheese factory at Heimdal actually managed to keep the same level of productivity and efficiency after implementing the six-hour workday. Other informants highlighted that this would be dependent on the type of job each employee has.

The findings reveal that the last four identified opportunities through the interviews each has 6 % support among the informants, of which the first is 1) how WTR policies could lead to a reduction of early retirement, because WTR would contribute to the feeling of being able to stay longer in the workforce, and moreover avoid early retirement, 2) the mention of the 'time

squeeze’ and how WTR could contribute as an opportunity to reduce this squeeze, because of liberated extra time to do things in regards to family responsibilities and improved work-life balance, 3) the opportunity that WTR, in terms of work-share, could contribute to solve future challenges of unemployment caused by automation and robotisation, and 4) how WTR could contribute to reduced sick pay, because people would manage to stay longer in workforce and become less sick. However, informant 13 makes a contradicting point about how rates of sick leave are being used as a measure of inclusion in Norwegian working life, of which the informant describes as ‘intellectual bluntness’ and ‘dishonesty’ among the researchers who uses it as a measure.

Thus, the results reveal how the main identified opportunities among the informants mainly relate to a combination of social sustainability (opportunity 1, 2, 3, 4, 6, 8, 9, 11, 12, 14) and economic sustainability (5, 6, 8, 10, 11, 13, 14), except for opportunity 7, which also relates to environmental sustainability.

5.1.3 Work sectors, realistic time frame and way of implementation

Figure 7 illustrates the informants’ opinions about whether they believe WTR should be implemented across all work sectors, some or none.

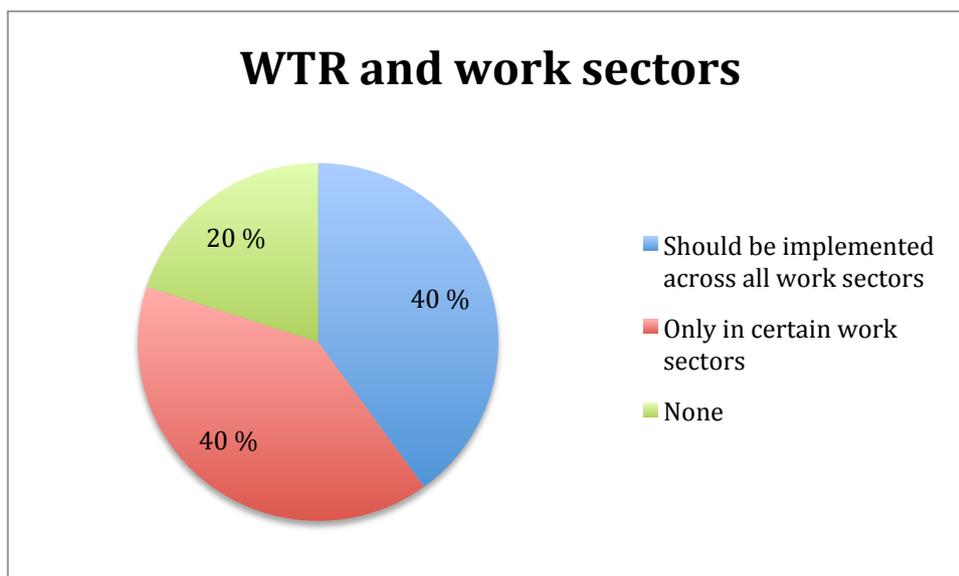


Figure 7: The pie chart presents informants’ opinions about which work sectors they believe should implement WTR.

40 % of the informants revealed that they would prefer WTR to be implemented across all work sectors, although some emphasised how this in that case should happen through

collective bargaining, and accordingly to the workers who are included in tariffs. One informant highlighted that if this were to happen as a norm across all work sectors, then it would be need for additional policy reforms, particularly in terms of economic policies. Another 40 % said that WTR should be implemented in certain sectors, instead of all. This particularly regarded work sectors containing physical demanding occupations or production/factory companies. Several informants highlighted how it could be challenging to implement WTR in the public sector, and also for companies that focused on producing thoughts and ideas rather than services and goods. 20 % of the informants said WTR should not be implemented in any work sectors. These informants were also among the ones who were negative to WTR policies, as revealed in figure 10.

Figure 8 presents informants’ perceptions of time frame for implementation of WTR policies, and thus relates to Q8 part 2 and Q12 part 3 in the interview guide (appendix II).

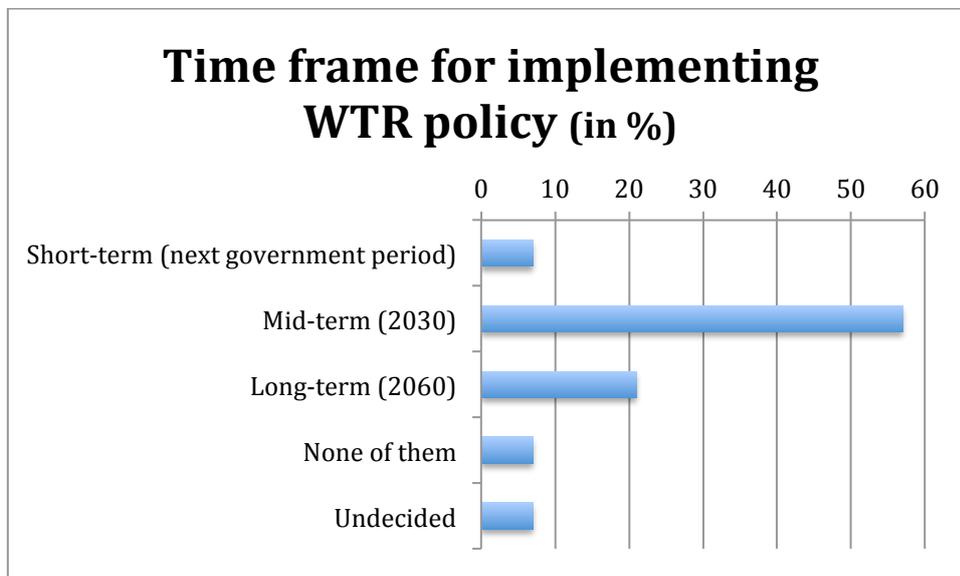


Figure 8: The bar chart presents informants’ perceptions of the most suitable time frame for implementing WTR.

In terms of time frame for implementation of WTR policies, the informants were asked to choose between a short-, middle- and long-term option. Out of 14 informants who replied to this question, 7 % thought it was realistic to implement WTR policies in a short-time period, which was by next government period. The main reason underlying this support was that informants claimed WTR policies could be implemented “tomorrow” if only everyone wanted to. However, whether that would be realistic is a different question, although very relevant. 57 % of the informants mentioned the mid-term scenario as the most realistic scenario, of which was implementation by 2030. Most informants, and particularly the ones to mention the 2030-

scenario, mentioned how an implementation of policies like this should happen through negotiations and agreements between unions and employer’s associations. Furthermore, they explained how a six-hour workday could be put to life through three collective bargaining and settlements. This implies a half-hour reduction in each settlement, so that the workday would be gradually transformed from 7.5 hours to six hours through these three wage settlements. As illustrated in figure 9, this could lead to pressure from unions on employers to change the length of the workday, which again could lead to pressure on politicians to change legislation. None of the informants mentioned politicians as a first link in the process of implementing WTR policies. They should rather come in after the case has been negotiated between unions and employer’s associations through collective bargaining.

Many of the informants mentioned how 2060 was too long-term, however 21 % mentioned this option as a realistic time frame. These informants argued that such an implementation would take much longer than 2030 because of its complexity. The options ‘none of them’ and ‘undecided’ each had 7 % support. The reasons underlying the support for the last two options were either that informants did not see WTR policies as realistic at all, or that they did not have enough knowledge about the topic in order to choose a realistic time frame.

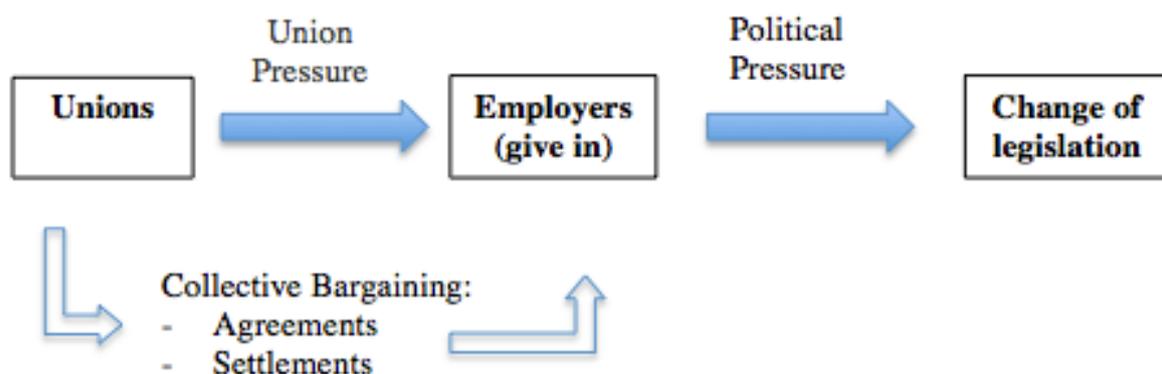


Figure 9: The model shows the most realistic way to implement WTR policies in Norway, according to informants’ opinions (Own elaboration based on literature and findings from the interviews).

5.2 Support (or lack therein) for WTR among concerned stakeholders

The findings reveal that out of the 16 informants 44 % were positive towards WTR policies (Figure 10).

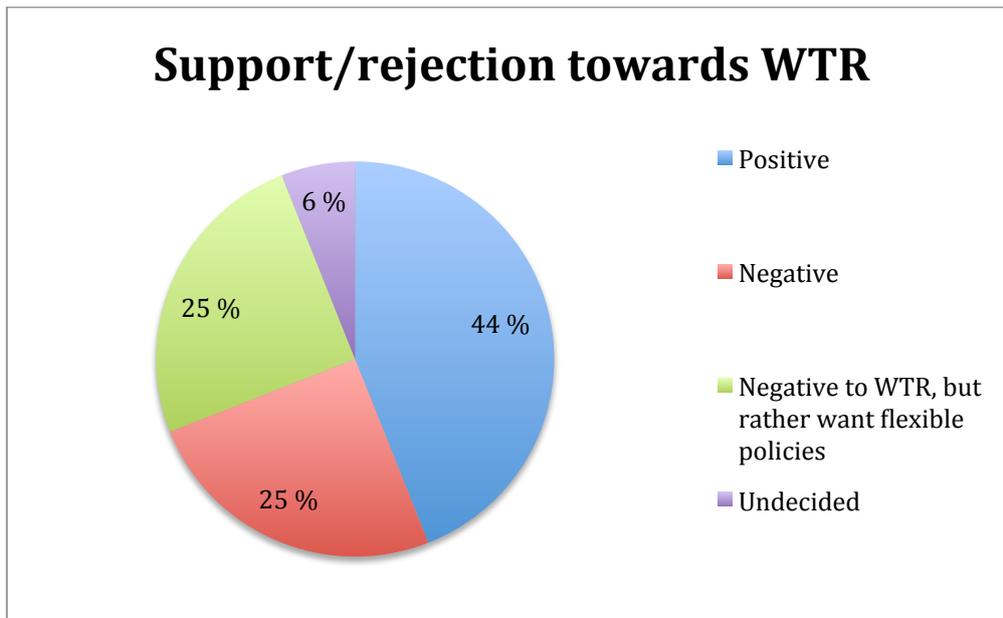


Figure 10: The pie chart presents informants' support/rejection towards the implementation of WTR policies.

Informants' attitudes were based on their professional opinions. This was related to their occupations and workplace's opinions (if they had any) regarding support or rejection towards WTR. The main reasons for support towards WTR policies have been identified as opportunities with WTR in section 5.1.2, and mainly relate to the arguments of 1) increased leisure time, 2) flexibility in terms of work-life balance, 3) improved health and well-being, 4) reduced unemployment, 5) possibilities of new technologies, and 6) the transformation of part-time jobs to fulltime jobs. 25 % reported negative attitudes towards WTR. The reasons for why these informants were negative can be seen in relation to the identified barriers with WTR presented in section 5.1.1, although the main arguments used were that 1) we do not have enough employees to fill in on extra shifts emerging from WTR, 2) increased taxes, 3) increased income inequality, 4) workers are less available at workplaces/in offices, 5) it is too expensive, which would reduce our level of welfare, and 6) low productivity leads to less production. However, another 25 % said that they were negative towards WTR policies, but rather advocated flexibility at the workplace. This was particularly mentioned in relation to various life phases that sometimes demanded more family responsibilities, such as during parental leaves and taking care of old parents. 6 % of the informants were undecided as to whether they supported WTR policies or not.

The stakeholder groups that were typically positive towards WTR were unions, political parties on the left side of the scale, as well as some in the centre, social (ecological) economists, left-wing think tank as well as a doctor and environmentalists. The stakeholders among the informants that were more sceptical towards WTR were political parties to the right, but also centre on the political scale, employers' associations as well as a conservative think tank. The stakeholders groups that were sceptical towards WTR were also among the ones to rather favour flexible policies. Among the group that was undecided were a researcher and social economist.

Figure 11 presents informants' preferences of WTR scenarios in terms of amount of working hours per week.

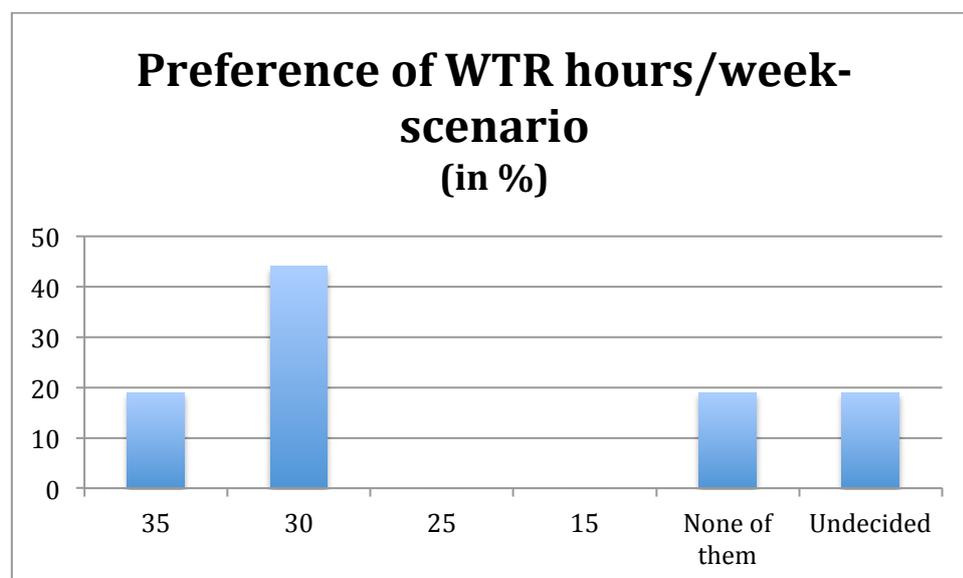


Figure 11: The bar chart presents informants' preferences of WTR scenario in terms of amount of hours per week.

The results reveal that the scenario of 30-hours per week was the most prominent scenario of WTR policies in terms of amount of weekly working hours (total support of 44 %). The main reason for this relates to the history of WTR in Norway, of which the six-hour workday has been the most discussed option. As earlier stated, some companies have had trials of the six-hour workday, while Tine dairy cheese factory in Heimdal is so far the only company to make it a permanent implementation. Several informants pointed out how the success of Tine's experiment was much due to the fact that employees were taken on-board from the very beginning. This implied including representatives from the employees in the policy design of

the WTR. Thus, informants suggested more companies should have experiments with WTR, and preferably for a longer time period than two years for more valid effects.

The informants who mentioned the scenario of 35 working hours per week were typically the ones who were most sceptical towards WTR. None of the informants preferred either the 25-hour scenario or 15-hours. 19 % said ‘none of them’ and another 19 % were undecided. The ones to mention ‘none of them’ were typically negative towards WTR policies and did not suggest other alternatives than to not reduce working time at all.

The findings reveal that 60 % of the informants prefer the WTR variant of a shorter workday (figure 12).

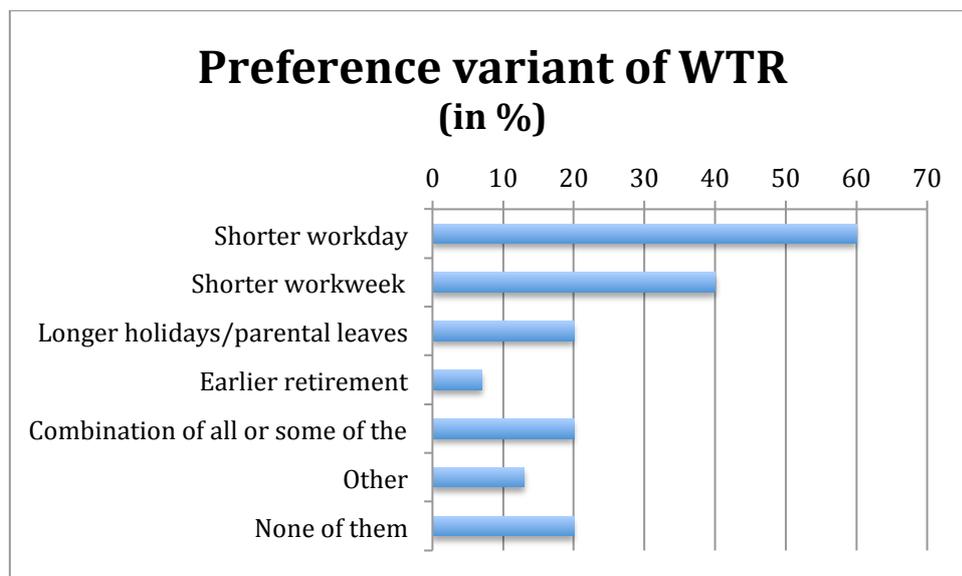


Figure 12: The bar chart presents informants’ preferences of what variant of WTR they favour. Several informants supported more than one variant.

When asked what option of WTR they preferred 60 % of the informants favoured the shorter workday, typically in terms of the six-hour workday. 40 % favoured the shorter workweek, typically in terms of the four-day workweek. 20 % mentioned longer holidays and parental leaves, while 7 % mentioned earlier retirement as their preferred option of WTR. 20 % mentioned how they would prefer a combination of some or all of the above. It was typically the first and second option (shorter workday and workweek) that was the most preferable combination. Thus, the two top options include the support from informants who preferred to combine the two. 13 % mentioned ‘other’ as an option, although they did not know what other options that would be. 20 % reported that they did not prefer any of the options, and among

these were all the ones who said they were negative towards implementation of WTR policies (figure 10).

Figure 13 shows the findings of whether the informants would personally consider WTR or not. 14 informants responded to this, as two out of all informants chose not to answer part 3 of the interview guide (appendix II), of which regarded personal preferences.

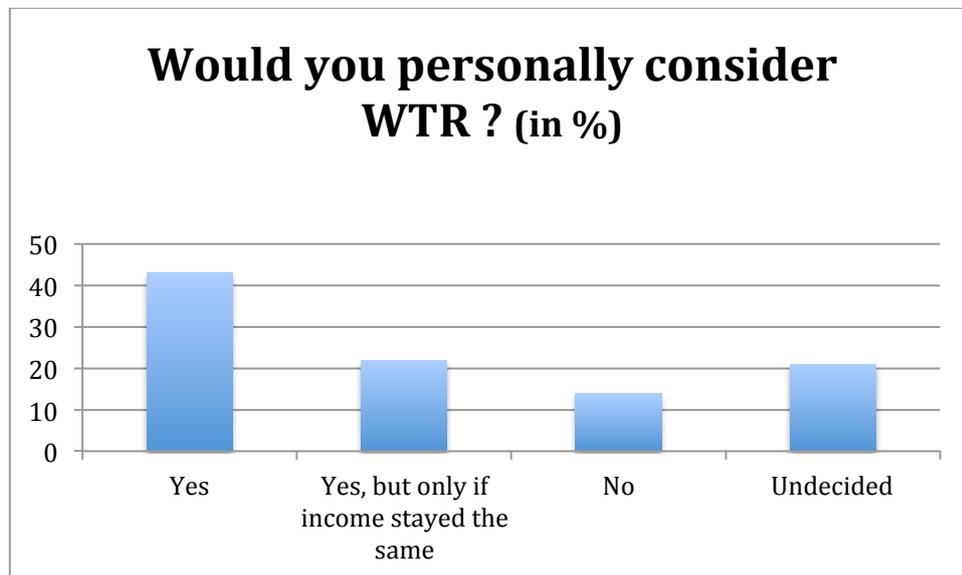


Figure 13: The bar chart presents informants' personal considerations of WTR.

When asked if they would personally consider WTR, 43 % of the informants answered yes, while 22 % said yes, but only if their income stayed the same as today. Among these were also three informants who claimed they were negative or undecided towards the implementation of WTR policies. 14 % of the informants said they would not consider WTR. Among these were informants who claimed they were negative or undecided towards supporting the implementation of WTR (figure 10). The 21 % who said they were undecided as to whether they would personally consider WTR, were also the ones who were typically negative or undecided towards such policies.

The findings reveal that 92 % of the informants would rather prefer to gain more leisure time than wage increase (figure 14).

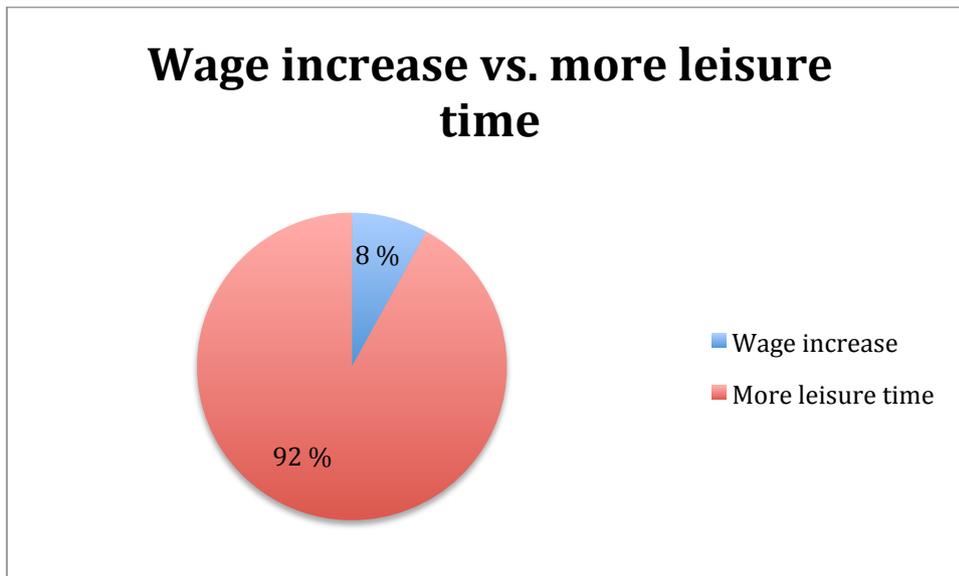


Figure 14: The pie chart presents informants’ preferences on what they would prefer in terms of wage increase or more leisure time.

The findings show that when informants were asked whether they would prefer a wage increase or more leisure time, almost all informants (92 %) responded more leisure time, while 8 % favoured wage increase. Among those who favoured more leisure time were both proponents and opponents of WTR policies. It was not specified whether ‘more leisure time’ implied a stability or reduction of salaries.

5.3 Socio-economic considerations for successful implementation of WTR

Figure 15 illustrates informants’ responses in regards to how they believe WTR could be financed, which is based on responses on Q4 in part 2 of the interview guide (appendix II).

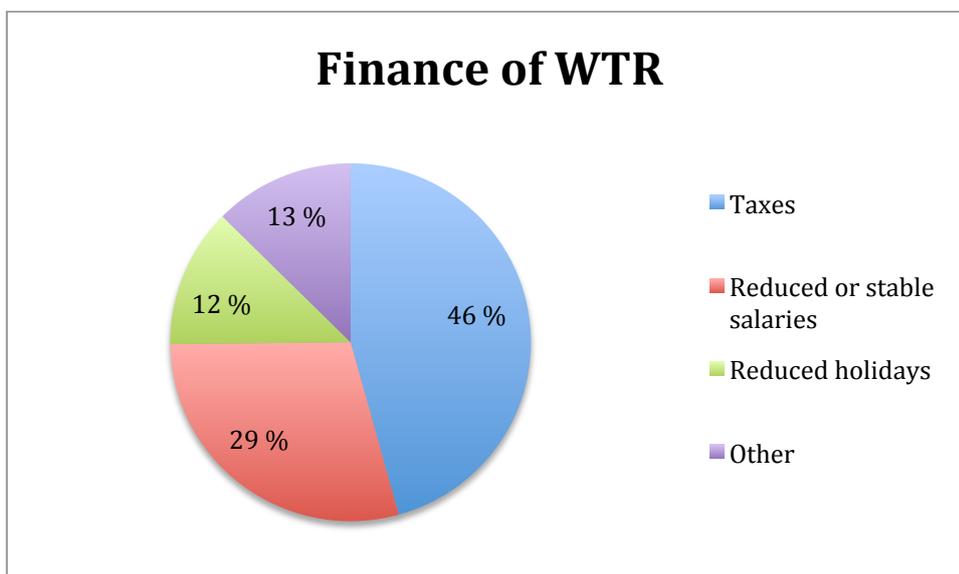


Figure 15: The pie chart presents informants' opinions about how they believed WTR should be financed.

The results reveal that 46 % of the informants believe WTR should be financed through taxes. Although the informants were not asked to specify what type of taxes that could help finance WTR, some of them mentioned employer's social security contribution and property tax (e.g. informant 1,15, 14,16). However, informant 16 pointed out how in practical terms it is really the workers who pay for the employer's social security contribution through taxes on salaries. Informant 3 made the point that taxes might go down because people work less and therefore have less tax to pay off their salaries. Value-added tax and other taxes such as environmental taxes were also mentioned (Informant 1, 14, 15). Informant 14 mentioned that instead of focusing on how to finance WTR, we could rather adjust our expectations to the welfare state. Although many of the informants mentioned taxes as a way of financing WTR, not all were persuaded that the Norwegian people would be willing to do this. However, as informant 14 pointed out, the Norwegian Labour party won local elections in Oslo even if they wanted to raise property tax in 2015. Despite this, informant 16 made the point that it might be easier for politicians to advocate for longer working hours to finance the welfare state, rather than saying they want to raise taxes in order to finance welfare, and furthermore WTR.

29 % of the informants mentioned 'reduced or stable salaries' as an option to finance WTR. Most of the informants who mentioned this option spoke of stable salaries, rather than to actually reduce salaries. They moreover mentioned how salaries should follow the inflation without an actual decrease. Informant 6 mentioned how unions did this with WTR in 1986-87 when they desisted salary increase, so workers did not really reduce their salaries. However, it was a nominal compensation and not a real compensation. Informant 3 emphasised how stable salaries might still lead to increased expenses, particularly in the public sector, because of the need to recruit more employees as a consequence of WTR for current employees. As with the options of 'taxes', a lot of informants were sceptical to the willingness of the Norwegian people to accept reduced or even stable salaries. 12 % of the informants favoured 'reduced holidays' as a way to pay for WTR policies. In the 'others' option, of which 13 % supported, some informants mentioned that WTR should be financed in another way than the given options, although without specifying further. Nevertheless, other informants mentioned options such as reduced expenses for unemployment benefits and sick pay, because of

inclusion of more workers with WTR.

Figure 16 presents informants' perceptions on whether they believe WTR policies should come with wage compensations or not. These findings are based on responses from several questions in part 2 of the interview guide, particularly Q3, Q4, Q5 as well as Q8 in part 3 (see appendix II).

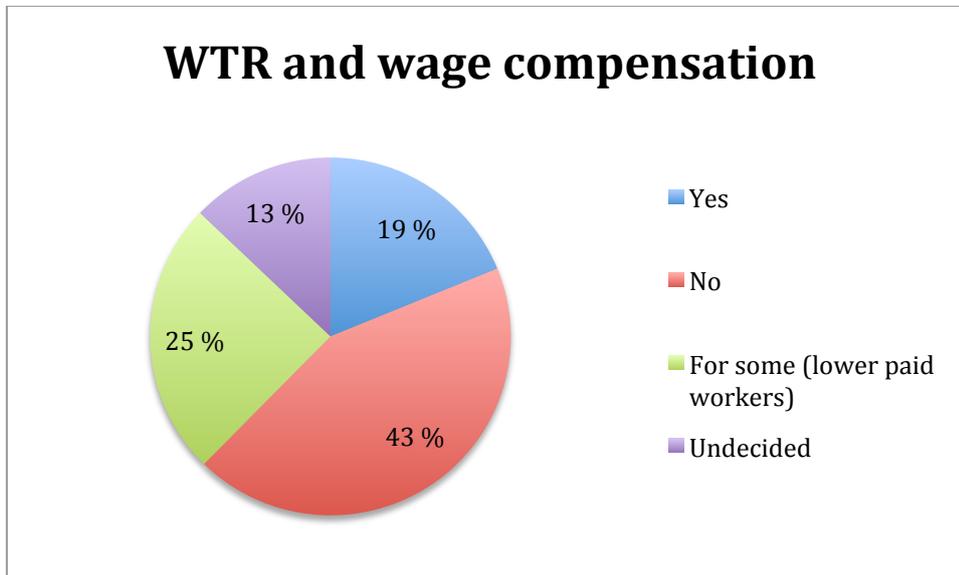


Figure 16: The pie chart presents informants' opinions on whether they favoured WTR with or without wage compensations.

The results reveal that the issue of 'wage compensation' is seen as highly relevant in the wider socio-economic debate on how to best implement WTR policies in Norway. 19 % of the informants thought that WTR policies should be implemented with full wage compensation, while 43 % revealed that they did not think it should. The informants who favoured wage compensation argued that we should not reduce purchase power further, because people would not be willing to do this. Additionally, informants said that WTR policies should not happen at the expense of workers. The informants who did not favour wage compensation argued that this would be too expensive for the economy. Only two of the informants (14 and 15) mentioned the environment as a reason to not give wage compensation, because of its link to purchase power and consumption that will lead to further environmental degradation. Despite this, two of the informants who favoured wage compensation revealed that they realised, after discussing the topic in the interviews, the links between wage compensation and the environment and mentioned how this in theory was bad (informant 4 and 11). 25 % of informants favoured wage compensation only for certain

groups of people, particularly lower-paid workers and those on minimum wage. This group of informants were also typically the ones to mention the barrier of 'increased income inequality' revealed through the identified barriers with WTR (figure 5). The findings suggest that to avoid the barrier of 'increased income inequality' we should at least give financial compensation to the people with lower-paid jobs. However, informant 16 claimed it was difficult to imagine how this would be done in social economics terms, and stated how it would not be feasible to both increase leisure time and additionally give compensations.

13 % of informants were undecided as to whether or not they favoured wage compensation. The reasons underlying this support were either 1) that they had not thought about it before, or 2) that they did not at all think WTR implementation was a realistic option for Norway and therefore dismissed all options.

6 Discussion

The discussion is organised around five main sections. The first discusses WTR and its relation to the various dimensions of sustainability to improve quality of life and reduce environmental impacts. The second contains controversies of WTR policies, while the third discusses WTR scenarios in Norway. The fourth section discusses the validity of this study, while the fifth contains various limitations of the study.

6.1 WTR and sustainability

As revealed in the background and furthermore results, the relationship between WTR and sustainability is complex. Improving quality of life and reducing environmental impact relate to the social, economic and environmental dimensions of sustainability. The relationship between the different are deeply interconnected and the different aspects within each sustainability category are overlapping. It can therefore be challenging to make a clear distinction between the three dimensions, although this was attempted in chapter 2 of the thesis. Moreover, in chapter 5 the various identified barriers and opportunities were connected to one or several of the dimensions.

The findings reveal that most of the barriers and opportunities mainly relate to a combination of social and economic sustainability, and thus the aim of improving quality of life. For instance, barrier 3 “income inequality” relates to social sustainability as it relates to inequality, but also economic sustainability because it additionally relates to income. Opportunity 6 “Part-time to fulltime” relates to both social and economic sustainability as a fulltime job is seen as a safety net for people both socially, in terms of well-being, as well as economically because of full income. Additionally, including more fulltime workers in the workforce is seen as positive for the economy (Finansdepartementet 2013). Hence, informants mostly see WTR as an aim to improve quality of life. Although the concern for WTR and environmental sustainability is mentioned through one barrier and one opportunity, it appears that it is not yet a big concern among informants. One reason might be that most informants are not aware of the links between working time and environmental pressures, as revealed through literature. This could be because the research on the topic is still at early stages.

The most prominent and top opportunity identified through the findings was how WTR would contribute to more leisure time, as 50 % of the informants reported. The main arguments for

why this was seen as an opportunity, were related to the aspect of social sustainability and how this would improve well-being and work-life balance in terms of reduced stress, but also more time for family responsibilities. 31 % of the informants saw a direct link between WTR and improved health and well-being, which corresponds to the points made by Cheng et al. (2014) and Costa et al. (2006). Another 31 % reported that they saw flexibility as an opportunity with the implementation of WTR policies. This corresponds with what Costa et al. (2006) found regarding flexibility of working hours and that it could lead to improved health and psychosocial well-being. It also relates to Åkestedt et al. (2003) who found flexibility as a factor to sustain working life to retirement. 13 % of informants said that a barrier with WTR policies would be increased stress from work intensity. This corresponds to the point by De Spiegelaere and Piasna (2017) and Costa et al. (2006) who emphasise the pitfall of reducing work-hours without simultaneously looking at a reduction of workload. This could lead to further time pressure, and thus stress and burn-outs.

The top identified barrier with the implementation of WTR policies was “not enough employees to fill in”, which 56 % of informants identified. The main concern was that with the implementation of WTR policies in Norway we might have a shortfall of labour in order to employ the extra shifts emerging with WTR. Additionally, the informants mentioned the future ‘elderly boom’ as a challenge that will affect the need for more people in the health sector. Interestingly, the top fourth opportunity (with 28 % support) was ‘reduced unemployment’, in terms of work-share to include more people in the workforce. This is interesting because the essence in these two, which is basically the same, is identified both as a barrier and opportunity for a WTR implementation in Norway. Nonetheless, the opportunity of reduced unemployment seems to be consistent to what André Gorz and Carlos Slim have stated about WTR, in terms of work-share and how it can be beneficial for unemployment rates and thus improve economic sustainability (Gorz 2010; Laya 2016).

6.2 Controversies of WTR policies

Several controversies seem to appear when investigating the feasibility of implementing WTR policies. First, the informants do not seem too worried about the growing automation and how it will affect Norwegian working life, as many informants emphasised the low unemployment rates in Norway, currently at 3.5 % (Statistics Norway 2019). This contradicts an important aspect identified through literature, which is the future long-term prediction made by Ford (2015) about the high rates of unemployment arising from the growing automation and

robotisation. One might wonder why the informants are not worried. Perhaps they are not thinking in terms of a long-term perspective, which makes Ford's predictions too far ahead. Still, a lot of automation is going on in developed societies already, but perhaps without too severe consequences on unemployment rates as of yet. It seems informants rather see automation as an opportunity to create new and 'green' jobs. This follows the discussion with points made by Schor (2005) and Pullinger (2014) in regards to the IPAT equation; a change in T towards innovation and more environmentally friendly technologies would give more positive effects on environmental impacts. However, this has been criticised by Hickel and Kallis (2019) as they characterised this in relation to green growth as a 'misguided objective'. Nevertheless, the debate about automation and unemployment appears to run in parallel to the WTR debate, but informants do not necessarily see them in direct link.

A second controversy in relation to WTR policies relates to the link between working time and environmental degradation, and thus how WTR can contribute in reducing environmental impacts. 25 % of the informants saw WTR as an opportunity for improved environment, which corresponds with what is revealed through literature stating that there is a link between shorter work-hours and a decrease of environmental impacts (Knight et al. 2013; Pullinger 2014). However, as highlighted by Schor (2015) and Pullinger (2014) through the IPAT equation, to achieve a reduction of environmental impacts, and avoid rebound effects, there is a vital need for stabilisation in affluence. This can be done in terms of a reduction of working hours in association with a reduction of income (Devetter and Rousseau 2011; Shao and Rodríguez-Labajos 2016; Shao and Shen 2017; Nässén and Larsson 2010). On the other hand, Shao and Rodríguez-Labajos (2016) claim that WTR can create rebound effects on the environment if people spend their extra time on energy-intensive activities. This corresponds with 13 % of the informants who identified 'the environment' as a barrier of WTR. Their main concern was moreover connected to a WTR implementation with full wage compensations that would lead to further purchase power and consumption with negative effects on the environment. It might seem like the debate on WTR policies and its link to environmental sustainability is slightly premature, because it appears many informants are not necessarily aware of the connection. Seemingly, a lot of informants follow the neoclassical way of viewing society; deeply connected to the economy, while the environment is still seen as something on the outside. A move towards ecological economics' way of thinking, where society and the economy is viewed as embedded within the environment would thus be desirable, also in order to reach the SDGs (Costanza et al. 1997; Raworth 2017). Income

could still ‘flow round the economy’ and the vital market relationship between businesses and household could still be kept (Raworth 2017), however it would be advantageous to also evaluate to what extent they should depend on each other, and furthermore how working time will affect the outcomes.

It would moreover be interesting to conduct further research among the Norwegian population to detect whether the link between working hours and environmental pressures is a concern or not, and moreover establish the reasons why. It is timely that research is being conducted on the field, as it will become increasingly more important to evaluate how activities in society and the economy affect the environment, in line with sustainability science (Costanza et al. 1997; Vatn 2015). In order to influence peoples’ willingness to change it will be essential for policy-makers to portray a future with reduced consumption as an improvement for peoples’ lives (Vangelsten and Temesgen 2014).

Along the lines of the last controversy, a third controversy relates to the aspect of wage compensations. 25 % of the informants highlighted barrier 3, which was how WTR policies could lead to ‘income inequality’, mainly due to the absence of financial compensation. This corresponds to what Ashford and Kallis (2013) addressed as giving people ‘sustainable earning capacity’ (2013:53). They furthermore claimed how the protection of the environment cannot happen at the expense of (poor) workers by giving them leisure time to reduce wages and making them economically insecure, in order to save the environment. This contradicts other aspects of literature, which advocate a reduction of income in order to reduce environmental impacts (Pullinger 2014; Schor 2005). This contradiction is thus reflected in the findings, as informants also seem to disagree on this. Nonetheless, 43 % of informants reported a favour of WTR without wage compensations. This challenges the fact from history that it has been difficult to gain support amongst employees for WTR policies with corresponding reductions in income (Schor 2005). The support for WTR with wage compensations will thus depend on stakeholders’ understanding of aims and potential outcomes of the policies. Moreover, the support will depend on the levels of income to affected employees before WTR is implemented.

Another controversy in regards to wage compensations is how the term ‘full wage compensation’ is defined, and moreover what informants actually mean by the term when they speak of it. It might appear confusing, because on the one hand, some informants talk of

full wage compensation in the sense that it implies further increase of hourly rates. These informants were typically the ones who did not favour WTR with wage compensation. In that case it would imply increased purchase power. However, other informants spoke of wage compensations as a stabilisation of wages, of which productivity growth would be translated into leisure time instead of increased wages. This implies a nominal reduction of wage. These informants were typically the ones to favour WTR with wage compensations, which was 19 %. Thus, it would be useful with a clarification of the definition of ‘full wage compensations’ in order to fully understand the potential for implementing WTR policies. 25 % of the informants favoured WTR with compensations for some groups, particularly lower-paid workers. This was mainly in order to avoid further inequality, as these workers would bear the costs of WTR. However, as this would imply wage increases only for some, one informant (a social economist) questioned the economic feasibility and feared potential implementation challenges for the economy. It would thus be interesting if further research took a closer look at this topic to fully understand the feasibility of WTR policies.

Another informant, representing one of the unions, stated how they are just about to start an exposition of the six-hour workday, of which the topic of wage compensations would be discussed. Since unions are beginning to discover links between working hours and environmental degradation (Vangelsten and Temesgen 2014), it could be the case that unions would advocate less for compensations in the future. Thus, it will be interesting to read the exposition once it is finished.

A fourth controversy relates to the 19 % of informants who identified barrier 5 ‘welfare reductions’. This is associated with the level of welfare goods and that the implementation of WTR policies could lead to less welfare, as it would be too expensive to maintain today’s welfare state. However, some informants questioned whether we actually need and want the current level of welfare state and asked: Could we perhaps benefit from slimming down today’s welfare state? Although this question is beyond the scope of this master thesis, it is indeed interesting and essential in a bigger debate about what kind of society that is desired, in which WTR policies could be part of. These thoughts are thus in line with the perspectives of degrowth/postgrowth, which would be interesting to explore in future research.

6.3 WTR scenarios in Norway

The findings revealed that the WTR debate in Norway mainly revolves around the 30-hour-scenario, and mostly as the six-hour workday. This has been publically debated since the 1980s and several companies have done experiments with this scenario. As stated in chapter 3, Tine Heimdal dairy cheese factory is in fact the only company to have kept it a permanent policy (Folkvord and Wergeland 2008; Wergeland 2015). De Spiegelaere and Piasna (2017) argued that a shorter working day (and week) are beneficial for work-life balance as e.g. parents could enjoy more time with their children on a daily basis. This seems to be consistent with informants' thoughts when the top identified opportunity was 'more leisure time', in order to improve work-life balance. It appears that the most realistic way to finance WTR policies in Norway is seen as through increasing taxes (as 46 % supported). Interestingly, the top second identified barrier of WTR was 'tax increase'. This is an interesting finding when discussing the feasibility of such an implementation. Hence, it would be useful to determine the willingness to increase taxes to achieve WTR among the Norwegian population, in order to get a full understanding of the feasibility.

It might seem like the 25- and 15-hour scenario sound good in theory (Bregman 2017; Keynes 1933; Laya 2016), however when discussing the feasibility with informants they speak of it as utopian options. This might be because all challenges and links addressed in theory, e.g. between WTR and environmental degradation, are not yet seen by all informants. Only informants who were sceptical towards WTR mentioned the 35-hour scenario, however it was not seen as a realistic option. Nonetheless, several informants suggested additional policies such as environmental taxes as a push to help people change consumption patterns and furthermore reduce environmental impacts. This corresponds to the suggestions of Ashford and Kallis (2013), Knight et al. (2013) and Pullinger (2014). King and van den Bergh (2017) found that the four-day workweek was the most effective scenario in terms of reducing GHG emissions through less commuting and less energy use at offices. Thus, it could be interesting for Norwegian unions and policy-makers to take a closer look at this scenario option.

44 % of informants were positive towards WTR, which means that popularity for WTR policies among informants is rather limited at this point. Although 50 % were negative to WTR, 25 % were still positive towards flexible policies. It seems that WTR policies are not fully explored by all policy-makers, in terms of understanding all potential aims and outcomes. Thus, the debate seems to be at an early stage in Norway. Although the most

popular WTR scenario was the six-hour workday/30-hours per week, the support and rejection towards WTR in general could change among stakeholders if the debate shifted and changed focus to a different scenario option (e.g. the four-day workweek).

In terms of a work-share scenario, 25 % identified how WTR could lead to the opportunity of a transition from part-time to fulltime work. Kallis et al. (2013:1562) addressed the thin line that distinguishes part-time work as an opportunity and part-time as a punishment, mostly in relation to work-share. The essential outcome had to do with the level of wages, but also the availability of fulltime positions. In order to avoid implementation problems that would make certain groups bear the costs of WTR, this thin line is thus important to have in mind when designing the policies.

Åkerstedt et al. (2003) found that low influence over own time and working hours correlates with quitting work due to mental strain as well as a higher risk of sick leave. Albertsen et al. (2008) found that increased influence over own work schedules had positive impact on social life indicators, such as work-life balance. This seems to correspond to what certain informants highlighted through interviews in terms of the successful experiment at Tine Heimdal factory; it was highlighted how the inclusion of the employees in the policy design had a lot to do with its success. Thus, Tine cheese factory has been underlined as a prime example for its inclusion. However, it must be taken into account that a WTR policy designed for one company, and in this case a production factory, might not be the best design for all companies or all work sectors. Policy designers should furthermore have this in mind in case there is need for adjustments. Additionally, De Spiegelaere and Piasna (2017) emphasised how the policy design also depends on the aim of the WTR. Most informants believed WTR policies could be implemented through collective bargaining and wage settlements. Thus, Figure 9 in chapter 5 attempts to illustrate this implementation process. This seems to be in line with thoughts from Ashford and Kallis (2013) and De Spiegelaere and Piasna (2017) who highlighted the power of unions and how they have important roles in processes of implementing WTR.

6.4 Validity and trustworthiness

In quantitative research it is common to evaluate studies according to criteria such as validity and reliability. Scholars (Guba and Lincoln 1994; Lincoln and Guba 1985) have proposed alternatives to these criteria in qualitative research to ensure that the evaluation is better suited for qualitative studies (Bryman 2016). The alternatives are trustworthiness and authenticity.

Trustworthiness contains four criteria; credibility, transferability, dependability and confirmability, and thus these are the criteria that this master thesis has used when assessed and evaluated.

Credibility is linked to the quantitative criterion of internal validity, but in the qualitative sense it refers to whether the researcher has followed “principles of good practice” (Bryman 2016:384) when research was conducted. As the topic of research in this study is quite broad and complex it was aimed to get a various sample that would demonstrate the different perspectives and views of society. The aim was thus to emphasise the different aspects on the possibilities of implementing WTR policies in Norway, but also to bring in the different viewpoints of other identified stakeholders through the data collection of background information (Bryman 2016). When planning the research I was careful to follow the guidelines from NSD as they had to approve my research plan before beginning data collection.

Transferability refers to external validity, and regards whether findings are transferable. Since qualitative research concentrates on smaller samples than in quantitative studies, it is not meant to generalise to a population or strive for representativeness (Bryman 2016). However, Graneheim and Lundman (2004) highlight the importance of providing a good description of the culture and context where data collection has been conducted, as well as the characteristics of informants. Hence, this was attempted in chapter 3 and 4 in order to help readers getting an understanding of context. Readers could then evaluate for themselves whether or not findings are transferable to another context.

In quantitative research it is common to assess and evaluate the findings’ reliability, which is whether a research can be reproduced with the same findings (Bryman 2016). To ensure trustworthiness, the third criterion proposed, and similar to reliability, is dependability. Although it is more challenging to reproduce research in qualitative studies, Lincoln and Guba (1985; 1994) suggest researchers should hold an audit trail with documents and history of all the research phases (Bryman 2016) in case other researchers wishes to test the trustworthiness. If anyone would ever want to test this study, I have kept track of these records. However, as the topic of this research is still in elaborative phases in Norway, a reproduced research at a different point in time could lead to different results as opinions among informants might change.

The last criterion to ensure trustworthiness is confirmability, which relates to objectivity (Bryman 2016). Qualitative research is often criticised for being too subjective because it relies too much on the “researcher’s unsystematic views about what is significant and important” (Bryman 2016:399). Although it is not possible to perform absolute objectivity, the researcher should not be biased by personal values as this could influence findings. It is my curiosity for the topic that has been at the front of motivation to conduct this study. I am neither favouring the ideas of WTR policies nor dismissing them. I did, however, ask informants about typical counter perspectives during the interviews so they were able to tell their opinions and argue for or against the perspectives. This was also done to ensure authenticity in the research (Bryman 2016; Lincoln and Guba 1985).

6.5 Limitations

Since the research questions are quite broad there are several additional methods that could have been used in this study. The research could additionally have included a quantitative survey among a representative sample of the Norwegian population to better determine whether the feasibility of WTR implementation. Because of the time and credit limit of this thesis (30 ECTS) it was not feasible at this time. However, it would have increased the validity, particularly since the Norwegian population are among the identified stakeholders in the stakeholder analysis provided in chapter 4. Another limitation appeared when analysing the findings, and I realised that part 1 of the interview (see appendix II) did not provide as valuable findings in relation to RQs.

6.5.1 Interview sample and limitations

This master thesis includes 16 semi-structured interviews with a various sample of informants selected from the stakeholder analysis. Scholars and authors debate the minimum and maximum number of interviews. Horowitz and Gerson (2002:223) argue that a conclusion cannot be satisfying if there are less than 60 interviews. Warren (2002:99) claims that if qualitative research is to be published, the minimum number of interviews should range between 20 and 30, although there are exceptions, such as very intensive interviews. Adler and Adler (2012) mention an interview range between 12 and 60 (Bryman 2016). Others highlight that the sample size is dependent on whether the researcher has reached theoretical saturation or not, which is mostly used in grounded theory and means that informants are not providing any new information or theoretical insight (Bryman 2016). Mason (2010), Guest et al. (2006) and Bowen (2008) emphasise the pitfall that many claim theoretical saturation

without justifying it by explanation, which is something to avoid. Bryman (2016) claims that broad and general research questions may necessitate a larger interview sample to gain empirical range. I am aware that a sample of 16 interviews might have its limitations for validity, particularly when the research questions are quite general and broad. However, I argue that my sample still provides and offers valuable insight into the debate about WTR policies in Norway, and where the debate is at in 2019. Nevertheless, I also realise that the sample could have been bigger.

I am aware that Q7 in part 2 of the interview guide (appendix II), which asks about different variants of reduced working time, (e.g. six-hour workday or four-day workweek), places the four-day workweek in the 30-hours scenario. This is disputable, as the four-day workweek can be designed differently and not solely as 7.5 hours per day.

7 Conclusion

The aim of this study has been to advance our understanding of the feasibility of implementing WTR as a policy to improve quality of life and reduce environmental impacts in developed countries. It appears that the feasibility of such policies is dependent on a couple of aspects. First, the aim for wanting to implement WTR will thus heavily influence the outcomes of the policy. Whether the aim is to improve quality of life of people, to reduce environmental impacts or both is essentially grounded in the dilemma of whether to further increase purchase power or gain more leisure time. Furthermore, at the core of the debate is also the question of whether the two dilemma aspects are compatible. There seems to be an appearing controversy between the aims. The findings from the case study of Norway reveal the concern for potential rebound effects if one of the aims is prioritised at the expense of the other.

Second, feasibility is moreover dependent on the aspect that includes the implementation of wage compensations as part of the WTR policy. The reasons for advocating WTR with compensations are mostly rooted in the desire to avoid further inequality that will make certain groups bear the costs of the policy. However, wage compensations for all will also imply increased purchase power that will lead to the maintenance or increase of production and consumption levels. In this case, the rebound effects will harm the environment and thus increase impacts. Findings suggest that compensations could solely be given to certain groups, i.e. to the lower paid and those on minimum wage. Nevertheless, the point was made that in such a case the WTR policy could cause implementation problems for Norwegian economy. Thus, the economic terms and impacts of this aspect would be advantageous to explore for further research.

The main positive effect associated with the scope of implementing WTR relates to the gain of leisure time. Both proponents and opponents appreciated this, mostly because it would improve quality of life in terms of work-life balance. However, it was not necessarily connected to the desire of reducing environmental impacts. This does not mean informants do not want to improve environmental sustainability. It is moreover grounded in the fact that the link between working time and environmental pressures is seemingly not something all stakeholders are aware of. Thus, the aim for implementing WTR to reduce environmental impacts was not as present as the aim for improving quality of life. An effort of broader

communication around this first aim would therefore be useful, also because the two aims are essentially interconnected. There was an expressed concern with WTR and the presumable following reduction in unemployment that could lead to a shortfall of labour. This contradicts future predictions and concerns of high unemployment rates because of growing automation. Another typical concern for WTR was that it would be too expensive in order to maintain the welfare state. This was argued with the concern for the need of increasing taxes. Nevertheless, tax increase and stabilisation of wages were identified as the most realistic financial factors for a successful implementation. Socio-economic considerations such as additional policies to WTR (e.g. ecological taxes) could be useful in order to accomplish both aims. In relation to the scope of implementing WTR policies in Norway, the most realistic way of implementation will be through collective bargaining between unions and employer's associations. Its outcomes will rely on the ability of policy-makers to include affected employees in the planning and implementation process.

Essentially, WTR policies could be beneficial for everyone, particularly for workers in physical demanding occupations due to positive health effects. Although there is some support towards WTR policies, they have limited popularity at this point among concerned stakeholders. Nevertheless, there is an expressed desire for flexible working policies. Feasibility of WTR relies on stakeholders' scope of understanding aims and potential outcomes of the policies. At this point it seems the debate is premature for certain stakeholders, especially because WTR is not by all seen as a way of combatting environmental impacts. The level of support is mainly focused around the scenario of 30 hours per week. The six-hour workday was most popular, however the four-day workweek was an option of curiosity among informants. Hence, it would be interesting for Norwegian policy-makers to take a closer look at this variant as literature finds that the four-day workweek gives most environmental benefits (King and van den Bergh 2017). Scenarios below the amount of 30 hours per week were treated utopic options at this point of the debate.

Although there is limited support towards WTR policies at this point, this thesis suggests that implementation will be feasible if 1) broad understanding for potential aims and outcomes of the policies is ensured, 2) lower-paid workers are financially compensated, 3) affected employees are involved in the design of WTR policy, and 4) additional policies are implemented in order to secure reduction of environmental impacts. Further research is recommended for better inclusion of concerned stakeholders. It would be advantageous to

arrange additional experiments of WTR (preferably longer than two years). Additionally, it would be useful to determine the support among a representative sample of the Norwegian population.

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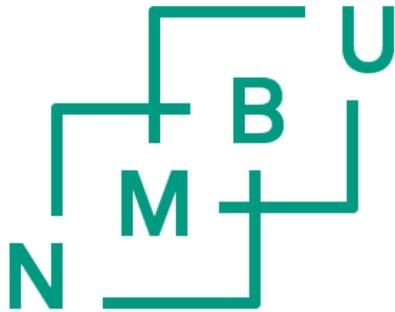
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9 Appendices

9.1 Appendix I: Information about research project sent to the informants



Norwegian University
of Life Sciences

Inquiry about participation in a research project on

”The Impact of Working Time on Social, Economic and Environmental Sustainability”

Dear Sir/Madam,

My name is Julie Alexandra Lie Pau and I am a postgraduate student at the Norwegian University of Life Sciences (NMBU), conducting research for my master thesis on working time. My supervisor is Professor Erik Gómez-Baggethun. The topic of the master thesis revolves around solutions for how to meet sustainability challenges in the context of the Green shift promoted by the Norwegian Government and the Sustainable Development Goals (SDGs) of the United Nations (Figure 1).

SUSTAINABLE DEVELOPMENT GOALS



Figure 1. Sustainable Development Goals of the United Nations.

Specifically, the thesis will explore the connections between working time and sustainability in Western societies.

This is an inquiry about participation in my research project. This document will provide information about what your participation will imply. Data collected will be used to write my master's thesis and a scientific article to possibly be published in a peer-reviewed journal.

Thank you.

Information about the research project

Who is responsible for the research project?

The Norwegian University of Life Science (NMBU) is the institution responsible for the project.

Why are you being asked to participate?

You have been selected as interviewee because your viewpoints are considered to be valuable input to my thesis, given your background and earlier work on the topic of working time.

If you chose to take part in the project, I will ask you questions regarding your opinions on the topic. Unless you disagree, the interview will be audio recorded for research purpose.

Participation in the project is voluntary. If you chose to participate, you can withdraw your consent at any time without providing a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you chose not to participate or later decide to withdraw.

Your personal privacy – how we will store and use your personal data

We will only use your personal data for the purpose(s) specified in this information letter. We will process your personal data confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act).

Your data will be available only to me and to my supervisor. I will replace your name and contact details with a code. The list of names, contact details and respective codes will be stored separately from the rest of the collected data.

Your name or personal information will be kept anonymous and will not be published in the final document, unless you agree for it to be included.

What will happen to your personal data at the end of the research project?

The project is scheduled to end on June 30th, 2019. At this time, your data will be anonymised, meaning it will no longer be possible to trace your opinions back to your personal information.

Your rights

As long as you can be identified in the collected data, you have the right to:

- Access the personal data that is being processed about you
- Request that your personal data is deleted
- Request that incorrect personal data about you is corrected/rectified
- Receive a copy of your personal data (data portability), and
- Send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of your personal data

What gives us the right to process your personal data?

We will process your personal data based on your consent.

Based on an agreement with the Norwegian University of Life Sciences (NMBU), NSD – The Norwegian Centre for Research Data AS has assessed that the processing of personal data in this project is in accordance with data protection legislation.

Where can I find out more?

If you have questions about the project, or want to exercise your rights, contact:

- Norwegian University of Life Sciences (NMBU), by email: (post@nmbu.no) or by telephone +47 67 23 00 00

- *via:*

Student: Julie A. Lie Pau – julie.alexandra.lie.pau@nmbu.no

Supervisor: Prof. Erik Gómez-Baggethun – erik.gomez@nmbu.no

- NSD – The Norwegian Centre for Research Data AS, by email: (personvern@nsd.no) or by telephone: +47 55 58 21 17.

The results of the research will be available approximately in June 2019. Through the contact details you will provide on the following page, you will receive either the full thesis, a shortened version as a scientific article, or a brief summary of the results in a brochure.

Yours sincerely,

Project Leader
(Researcher/supervisor)

Student





Student (signature)

Consent form

I have received and understood information about the project *Impact of Working Time on Social, Economic and Environmental Sustainability* and have been given the opportunity to ask questions. I give consent:

- to participate in an interview
- for information about me/myself to be published in a way that I can be recognised, i.e. indicating my name, profession or workplace

I would like to receive the results of the research published in the following format:

- Full thesis
- Scientific article
- Brochure

at the following e-mail address/postal address:

I give consent for my personal data to be processed until the end date of the project, approx. June 30th, 2019

(Signed by participant, date)

9.2 Appendix II: Interview guide

Interview about working time in Norway

Do you ever think about the societal challenges and dilemma of working time? In the national and international policy agenda it is a big matter of debate because it links to major sustainability challenges like access to employment, work-life balance and the climate crises. Some politicians and economic leaders state that we must work longer hours and more years in the future to if we want to maintain the welfare state and keep employment rate at the same levels as today. Others say that the solution to social, economic and environmental sustainability challenges could be to reduce working time. The purpose of conducting these interviews is to collect views on how working time will affect social, economic and environmental sustainability, and thus how it could best be implemented in Norway.

In 2013 The Norwegian Government and Ministry of Finance published a document (Perspektivmeldingen) that said Norwegians would have to work more in the future if we are going to maintain the welfare state as it is today. Statistics Norway published a report in 2014 investigating and calculating what would happen to Norwegian economy if Norwegians work less and gain more leisure time. The report concludes that with a gradual downscale of working hours, Norwegians could work six hours a day in 2060 and still maintain the welfare state. They additionally found that purchase power would be two times higher in 2060, even with less working hours. Hence, there is disagreement on how to best meet future societal challenges in terms of working time. The societal dilemma at stake is basically the choice between additional leisure time and additional purchase power, two objectives that may not be maximized simultaneously. What do people prefer? How (long) should we work in the future? That is what I intend to find out with this research project.

The interview is divided into three different sets of questions. The first part is addressing the perspectives of work and working time at your workplace. Here I also want you to answer based on your role and expertise. The second part includes questions regarding barriers and opportunities for changing the amount of working time, also in terms of how your workplace would perceive this. The final set of questions will ask about your perceptions of working time in your own life. Here I want you to answer based on your own personal experience.

Do you have any questions before we start the interview?

Part one: Perspectives of work and working time at your workplace. Please give your answers based on your role and expertise.

- 1. How many hours a week do you work, approximately?**
- 2. In Norway the average working week is approximately 37.5 hours and an ongoing discussion is whether this should be shortened or prolonged. Is this a topic of discussion at your workplace?**
- 3. Do you have a unified or dominant position around it at your workplace?**
- 4. Is there any official policy on working time at your workplace?**
- 5. Is your impression that your workplace considers 37.5 working hours per week to be:**
 - Too much
 - About adequate
 - Too little

Why?
- 6. What is your workplace's position towards part-time jobs?**
- 7. Is technology/automation visibly replacing labour force at your workplace? If yes, please specify how.**
- 8. At which age do employees usually retire at your workplace?**

Part two: Barriers and opportunities for changing working time

These questions are also in terms of the perceptions of your workplace. Please give your answers based on your role and expertise.

- 1. What would be the main benefits from changing the amount of working time (at your workplace)?**

2. What would be the main disadvantages of changing the amount of working time (at your workplace)?

3. If work-time reductions (WTR) were introduced (at your workplace), do you think it would affect salaries?

4. How could WTR be financed at your workplace? Through:

- Taxes
- Company-based. E.g. reduced holiday entitlements
- Through (less or stabilized) salary
- Other. Please indicate: _____
- It would not be impossible either how, because _____

5. Should WTR be implemented

a) across all work sectors, or only for some?

b) Are there any work sectors that should not implement WTR? Please specify.

6. There are many different working time scenarios that would be possible to adapt. What would be the most preferable of the following scenarios of working time per week (at your workplace)?

- 35 hours/week (e.g. as in France)
- 30 hours/week (6-hour workday or 4-day workweek of 7.5 hour each day, as suggested by LO, the 6-hour workday, and has been experimented in Norway)
- 25 hours/week (as experimented in Australia and New Zealand)
- 15 hours/week (Proposed by John Maynard Keynes in 1930, now also Rutger Bregman in his book “Utopia for Realists” from 2016).

7. Which of the following formats would be the most preferable regarding reduced working time (at your workplace)?

- Shorter workday (e.g. 6-hour workday)
- Shorter workweek (e.g. 4-day workweek)
- Longer vacation / longer parental leaves
- Earlier retirement
- A combination of all or some the above (which?)
- Other. Please indicate.

8. How would your workplace perceive the above scenarios (35-15h/w) in terms of time frame? Is it realistically and politically feasible to implement each scenario in:

- Short term: Within next government period
- Medium: By 2030 (time frame of SDGs)
- Long term: By 2060 (scenario from Statistics Norway/Perspektivmeldingen 2013 of the Norwegian Government and Ministry of Finance)

Part three: perceptions of working time in your own life

The third and last part includes questions about your personal perception of working time in your own life. Your personal position may or may not differ from the one of your company.

- 1. Do you feel that you are productive during all the hours you spend at work?**
- 2. If you could change one thing about your average workday, what would that be?**
- 3. How often would you say you work longer hours than what is stated as your conventional working hours?**
 - Very often (every week)
 - Often (every month)
 - Sometimes (once every two months)
 - Seldom (once every six months or less)
 - Never
 - Other. Please indicate: _____
- 4. How often do you experience work-related stress in a time period of six months?**
 - Very often (every week)
 - Often (every month)
 - Sometimes (once every two months)
 - Seldom (once every six months or less)
 - Never
 - Other. Please indicate: _____
- 5. If often, what do you think is the reason for your stress? Is it imposed or by own choice?**
- 6. Do you feel you have enough time for after work life and duties like:**
 - Family life
 - Hobbies
 - Household cleanse
 - Grocery store shopping
 - Food making
 - Exercise
 - Other. Please indicate: _____
- 7. If you had the choice between more income or more leisure time, what would you prefer? Please explain the reason for your preference.**
- 8. If offered the opportunity, would you consider reducing your working time? Please explain.**
- 9. If WTR was implemented, how would you use the additional time gained?**

10. How do you personally perceive the following future scenarios of working time per week? What are the reasons underlying your support or lack therein?

- 35 hours/week (e.g. as in France)
- 30 hours/week (6-hour workday or 4-day workweek of 7.5 hour each day, as suggested by LO, the 6-hour workday, and has been experimented in Norway)
- 25 hours/week (as experimented in Australia and New Zealand)
- 15 hours/week (First proposed by John Maynard Keynes in 1930, now also Rutger Bregman in his book “Utopia for Realists” from 2016)

11. Which of the following formats do you personally consider most preferable regarding reduced working time?

- Shorter workday (e.g. 6-hour workday)
- Shorter workweek (e.g. 4-day workweek)
- Longer vacation / longer parental leaves
- Earlier retirement
- A combination of all or some the above (which?)
- Other. Please indicate.

12. How do you perceive the above scenarios (35-15h/w) in terms of time frame? Is it realistically and politically feasible to implement each scenario in

- Short term: Within next government period
- Medium: By 2030 (time frame of SDGs)
- Long term: By 2060 (scenario from Statistics Norway/Perspektivmeldingen 2013 of the Norwegian Government and Ministry of Finance)

Thank you, that was the last prepared question. Before we end off the interview,

- Do you have any additional comments, observations or recommendations that you feel you were not able to express during the interview?
- Do you know other persons who could be useful informants for the purpose of this research?

Details of the interviewee:

Name:	
Gender:	
Age:	
Level of education:	<input type="checkbox"/> High school <input type="checkbox"/> Bachelor’s degree

	<input type="checkbox"/> Master's degree <input type="checkbox"/> PhD
Place of origin:	
Occupation:	
Amount of children:	
Employer:	
Income range per year: <input type="checkbox"/> 0 – 100.000 NOK <input type="checkbox"/> 100.000 – 250.000 NOK <input type="checkbox"/> 250.000 – 450.000 NOK	<input type="checkbox"/> 450.000 – 650.000 NOK <input type="checkbox"/> 650.000 – 850.000 NOK <input type="checkbox"/> 850.000 – 1.000.000 NOK <input type="checkbox"/> More than 1.000.000 NOK
PLEASE DO <u>NOT</u> FILL OUT THE ROW BELOW	
Code:	



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Norwegian University of Life Sciences

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