



Digitalization and social dialogue in Sweden

Working paper

January 2019

Ola Bergström and Mohammed Ismail,
School of Business, Economics and Law, Gothenburg University, Sweden

Table of contents

1. INTRODUCTION	3
2. SOCIAL DIALOGUE AND RESTRUCTURING IN SWEDEN	3
3. METHODS	7
4. SWEDISH GOVERNMENT INITIATIVES ON DIGITALIZATION	8
5. DIGITALIZATION IN SELECTED SECTORS	11
5.1. TOURISM	11
5.2. FINANCIAL SERVICES	13
5.3. POSTAL SERVICES	21
5.4. MANUFACTURING SECTOR	23
6. DISCUSSION AND CONCLUSIONS	31
REFERENCES	34
APPENDIX I: SOCIAL PARTNER RESPONSES TO THE DIGITALIZATION STRATEGY	35
APPENDIX II: SOCIAL PARTNER RESPONSES IN THE TOURISM INDUSTRY	38

1. Introduction

Almost every day we are confronted with news about revolutionary or disruptive technical breakthroughs. Autonomous cars, 3-D printing, collaborative robots and digitalized customer interfaces are claimed to change the competitive landscape for firms and industries. Technological developments are also expected to have dramatic effects on labour markets. Jobs will be taken over by robots, new occupations emerge and workers need to be trained in order to be able to stay in the labour market. One of the main reasons for the current attention paid to digitalization is the shift in competences and skills, both at the firm and the labour market level, and whether restructuring leads to job loss or employment growth.

The purpose of this report is to analyse how social partners in Sweden address digitalization and restructuring in social dialogue. To better understand the impact of restructuring driven by digitalisation on social dialogue this report addresses the following questions:

- What are the main topics of debate and issues of concern around digitalisation and restructuring among social partners and governments?
- Which actors are involved in social dialogue regarding restructuring driven by digitalisation?
- Are the existing forms of social dialogue and industrial relations structure at national, sectorial and company level still relevant?
- How do the relationships among social partners change?
- Are the existing restructuring policies and measures still relevant?
- What new initiatives and policies are discussed and implemented?

To answer these questions the paper is structured as follows. First, it is important to describe the state of the art of industrial relations and social dialogue. Second, we will analyse government initiatives, as well as a number of Government Public Investigations, related to digitalization. These are important, since government investigations can be seen as a form of social dialogue, at least in the Swedish context. When government public investigations are initiated, social partners, together with other societal stakeholders, are invited to respond to its final report and policy proposals. We will therefore review the government initiatives and investigations at some level of detail as well as the social partner responses to these reports. The report then goes on to analyse developments related to digitalization in a selection of sectors, again using government public investigations and initiatives as the starting point for the analysis. In the final chapter we discuss the main findings of the report.

2. Social dialogue and restructuring in Sweden

Social dialogue is defined by the ILO to include all types of negotiation, consultation or simply exchange of information between, or among, representatives of governments, employers and workers, on issues of common interest relating to economic and social policy. It can exist as a tripartite process, with the government as an official party to the dialogue or it may consist of bipartite relations only between labour and management (or trade unions and employers' organizations), with or without indirect government involvement (ILO, 2018).

According to the ILO (2018) the main goal of social dialogue is to promote consensus building and democratic involvement among the main stakeholders in the world of work. Successful social dialogue structures and processes have the potential to resolve important economic and social

issues, encourage good governance, advance social and industrial peace and stability and boost economic progress.

In Sweden, social dialogue is more or less free from government influence. Tripartite negotiations are rare. Sweden has a tradition of discussion and cooperation between the social partners that establishes the terms of collective bargaining. The social partners normally do not welcome intervention by the government, and the tradition of self-regulation through collective bargaining by social partners is strong. Collective wage bargaining coverage in Sweden is high by international standards. In 2017, there were 671 collective agreements in place, covering 90 percent of the labour force (Medlingsinstitutet, 2018).

According to Visser (2013), mandatory extension of collective agreements is crucial for reaching coverage rates as high and stable as in continental Western Europe. However, in contrast to most European countries, Sweden does not have legal instruments that extend collective agreements to non-organized employers in the same sector or occupation.¹ Thus, in Sweden bargaining coverage is high, despite the absence of mandatory extension of collective agreements to non-organized employers.

One possible explanation to the high level of collective bargaining coverage is the benefits employers gain from signing collective agreements. The Swedish model is based on the principle that employers gain peace in the workplace by signing collective agreements². Trade unions agree not to use industrial actions, such as strikes, as long as collective agreements are valid. Thus, since employers have a strong incentive to maintain peace, they are willing to sign collective agreements. Labour laws also provide incentives to employers to sign collective agreements. Several of the main legal prerequisites are semi-dispositive, which means that social partners can agree upon other rules, both stronger and weaker, than those stipulated in labour law. This means that employers have much to gain from social dialogue.

The high level of collective bargaining may also be explained by the specific conditions for union action, including the possibility to organize solidarity strikes (Visser, 2013). Workers employed in one firm (covered by collective agreements) are allowed to strike to support the signing of a collective agreement for workers employed in another firm. In this way, trade unions can impose a form of horizontal influence among employers.

The absence of state imposed minimal wages also explains the importance of collective bargaining. With minimal wage regulations, employers could avoid bargaining by simply offering the minimal wages as defined by the government. Thus, the absence of minimal wages regulations implies that employers need to come to agreements with trade unions about wages. If they do not settle agreements, trade unions would initiate industrial actions. One of the strategic priorities of trade unions is therefore to make sure that the Swedish government does not enforce minimal wages.

¹ According to Visser, (2013) Extension clauses exist in most European Member states except Sweden, Denmark, Italy and the UK.

² According to Visser (2013), peace obligations exist in other countries, however, the notion of peace obligation in Sweden are different from other countries, for example Germany, where peace obligations may be found in collective agreements, but the fact that works councils are legally barred from strike action does make such clauses less important.

Thus, in contrast to most other European countries, the Swedish industrial relations model is not based on ‘automatic’ use of administrative extension of agreements to non-organised employers. Instead, the basis for high coverage level is sector bargaining and a high level of unionisation (Visser, 2013), where unions are strong enough to force non-organized employers to apply the sector agreements and sign an ‘adhesion agreement’. There are also considerable benefits for employers to sign collective agreements. Thus, while other European countries are dependent on continuing state support, the Swedish model is based on a form of self-regulation where both sides gain from maintaining peace in their relationships without much state influence.

Sectoral bargaining and coordination

Since the establishment of the collaborative agreement for the manufacturing industry in 1997, the most common level of negotiation is the sectoral level. The collaborative agreement in the Manufacturing sector (Industriavtalet³) stipulates that wage agreements, settled between employers’ organisations and a cartel of ten unions in the export-oriented manufacturing industry, should set the norm for wage bargaining. The agreed percentage pay increase by employer and employee representatives in the manufacturing sector serve as a benchmark and sets the standard for pay increases in other sectoral agreements. In practice it means that social partners in the manufacturing industry begin the bargaining processes. The other sectors then coordinate their negotiations so as to follow the “benchmark” regarding wage increases set by the agreement in the manufacturing sector.⁴ This coordination is promoted through the Swedish Trade Union Confederation (LO), ensuring coordination among their respective trade union federations and primarily through the National Mediation Office, a government agency established in year 2000 which has been given the task to monitor, preserve and maintain consensus on the role of norms. The basic idea is that this procedure promotes good socio-economic development and increased employment if the development of labour costs is maintained within a socio-economic sustainable framework (Medlingsinstitutet, 2018). Without standardization, wage increases in certain specific contractual areas may risk spreading to other groups in future contractual transactions. If cost increases are too high, inflation may over a few years exceed the inflation target. The Riksbank (the Swedish central bank) may then pursue a tightening of monetary policy, which leads to reduced investment and employment. Excessive cost increases can also lead to a lower return on capital in Sweden than in the rest of the world, which has a negative impact on investment and employment. This form of trendsetting arrangements is common in several European countries but is a more recent phenomenon in Sweden (Visser, 2013) and is by many seen as an important innovation of collective bargaining.

Restructuring in Sweden

The Swedish Restructuring regime is primarily based on qualitative adjustment (Bergström, 2018) through the facilitation of job transition for redundant workers to new jobs, through the so-called

³ The name of the agreement in Swedish is “Industriavtalet”, which may in English be translated to the Industry agreement. However, in this report I use the term “Manufacturing sector agreement”, which I believe better describes its connotations. In the Swedish language, the term industry primarily refers to manufacturing activities, while in English it may also describe a branch or a sector of activities, not necessarily related to manufacturing. The term Industry agreement may therefore be misleading because it can be interpreted as a sector agreement in general, without specifying the specific connotations of manufacturing in the Swedish language.

⁴ This practice has been questioned, primarily by trade unions representing professional workers in the health care sector, arguing that it undermines the possibility to equalize wage differences between gendered occupational groups.

job security councils, which are based on collective agreements between social partners. A particular feature of the Swedish model of restructuring is that the state has a very limited role in providing support or policies to manage restructuring. Government policies are primarily directed to the unemployed, through unemployment benefits and public employment services. .

The financial crisis in 2008-2009 was a kind of test case for the Swedish model of restructuring. The crisis implied major redundancies but results in terms of transition rates of redundant workers to new jobs remained stable throughout the crisis. However, the social partners experimented with so called crisis agreements, which facilitated the use of short-time working schemes for industrial companies heavily affected by the financial crisis. These short-time working schemes were at the time neither financed nor supported by the government. In 2014, however, the right-wing government set up a publicly funded short time working scheme to be used in times of deep economic crisis. So far this scheme has not been used and it is in an international perspective not as generous as in other European countries (Industry Council, 2016).

In late 2014 a Social democratic led government was installed, headed by the former head of the metal workers trade union (IF Metall) Stefan Löfven, who was the main responsible for the negotiations of the crisis agreement in 2009. At the time, he received a lot of critique because he accepted the agreement, which was seen as a diversion from the Swedish model, based on accepting change and redundancies while maintaining stable working conditions for the remaining workforce. The short time working schemes envisaged in the crisis agreement were seen as a way to reduce or worsening the working conditions for workers during a crisis. Even if these measures were temporary, they were seen as violating the basic principles of the Swedish model. A publicly co-funded short time working scheme, it was argued, would secure better conditions for workers.

In February 2018, State minister Löfven announced that a public investigation of the possibility to revise the government funded short time working scheme was to be made. Responsible for this investigation was to be his former colleague Anders Ferbe (both have been chairmen of the Metal workers confederation, IF Metall). The basis for the investigation was to analyse if and how the already established short time working scheme could be made more competitive in comparison to other European and OECD countries. It was argued that the experience from the financial crisis in 2008-2009 showed that firms implemented unnecessary redundancies and had difficulties in increasing production when the business cycle returned. This was seen as a competitive disadvantage for Swedish firms in relation to their European competitors. The investigator should also investigate whether there is a need to associate the system with other activities, such as validation of experiences, education and other training activities for participating individuals. The first part of the investigation was presented in August 2018. The second part concerning validation and training will be presented in February 2019.

Thus, the primary mechanism to manage restructuring is through job-to-job transition of redundant workers. Quantitative adjustment measures, such as early retirement and short time working schemes have been negligible in the Swedish economy. However, recent developments indicate that the new government, installed in January 2019, consider a reform of the publicly financed short-time working schemes as a way to prepare for future financial crises. This suggests, that there is, at least temporarily, an increasing involvement of the state in managing restructuring.

3. Methods

This report is primarily based on an analysis of Government Public Investigations and reports made available online by the social partners, the government or other stakeholders.

The analysis is made as a version of discourse analysis, identifying the main themes of the conversation between social partners and between social partners and the government, and how the conversation about digitalization and restructuring between the different actors change over time.

An important aspect regarding the digitalisation discourse in Sweden is the interaction between Government Public investigations and position papers of social partners. In order to provide a reader with a general understanding of the context, it may be useful to briefly describe the specific nature of Public Investigations in Sweden. Government Public Investigations are produced by a public committee. A committee is a group set to prepare for a government decision and has an assignment to investigate a certain policy issue. It may be regarded as a government agency that has been temporarily formed to provide a basis for political priorities. It also happens that the government leaves an assignment to a single person, a so-called special investigator.

A committee has the task of gathering facts, analysing them and submitting proposals. In this way, several of the government's actions are prepared in various areas. A particular feature of the committee procedure is that different interest groups, or the political opposition parties, have the opportunity to participate in the development of new policies. Politicians and experts are given the opportunity to cooperate and also to publicly respond to the proposals made. Decisions to appoint a committee are taken by the government. The initiative may come from the government itself, the departments, the parliament, a government authority or an organization, but also from single citizens.

The committee or the special investigator is formally responsible for the work and is responsible for the proposals made. The proposals envisaged in the final reports are not necessarily reflecting the view of the Government in power. In practice, it is usually the committee secretary who makes the most of the writing work. However, the committee has on-going contact with the ministry and the responsible entity. Often ministries work as experts in the committee. Usually, the work is done in the form of one or more reports in the SOU-series (Government Public Investigations). If the committee is particularly extensive, or is going on for a long time, it is also common for it to submit interim reports in the meantime and end with a final report.

Thus, the Government Public Investigations is an important part of social dialogue in Sweden. They are set up as a temporary body, facilitating a dialogue between stakeholders based on the available gathered facts regarding the defined topic, analysing them and provide policy proposals, which may then be responded to by relevant stakeholders, including social partners and public organisations at different levels. The Public Investigations can also involve social partners and public authorities during the investigation and in this way the view of different stakeholders may be anticipated in the final proposals. This is a way for the Swedish government to ensure policy implementation and acceptance of public policies.

There are several Government Public Investigations relevant for this study. There are specific investigations regarding digitalization and other investigations related to restructuring policies.

There are also public investigations relevant for the particular sectors or industries covered in this report.

4. Swedish government initiatives on digitalization

Since 2011 the Swedish government has regarded digitalization as a specific policy area, coordinated through three ministers and ministries (minister of housing and digitalization, minister of industry and innovation and the minister of internal affairs (civil minister)). Previously, policies regarding technological development have been framed as IT-policy, primarily oriented towards IT infrastructure investments, broadband, innovation and how government authorities should use information technology in the provision of public services. The concept of digitalization, however, provides a possibility for the government to address wider societal issues and policy concerns. It also provides a possibility for the government to create a vision of a new society and the role of the state in such a society. The general ambition of the Government digitalization policy is that:

“Sweden will be the best in the world to use the potential of digitalization. Electronic communications should be effective, safe and robust, and meet the needs of users. Electronic communications should primarily be provided through a well-functioning market, but the state should have a responsibility in areas where the needs can not be solely catered for by the market.

Sweden will have world-class broadband. All households and companies should have good opportunities to use electronic community services and broadband service. The government's broadband strategy - Sweden fully connected in 2025 - has the vision of a fully-connected Sweden and has goals for access to high-speed broadband at home and at work, as well as for access to mobile services where people usually find themselves.”
[\(https://www.regeringen.se/informationmaterial/2017/05/for-ett-hallbart-digitaliserat-sverige--en-digitaliseringsstrategi/](https://www.regeringen.se/informationmaterial/2017/05/for-ett-hallbart-digitaliserat-sverige--en-digitaliseringsstrategi/) (retrieved 2018-12-04)

According to the policy, a well-developed and well-functioning digital infrastructure is a prerequisite for meeting the increased digitalization in society and creating the opportunities for increased competition and innovation that digitalization provides. Digitalization is also seen as a key tool for reducing the climate impact of modern society and modernizing the Swedish economy to create new sustainable jobs in growing companies.

The policy acknowledges that Sweden is already digitally prominent, but that further efforts are needed to maintain Sweden's leading position. It is important that everyone is given the opportunity to take part in the digitalization and benefit from it. “It is about developing and using their digital skills, but also to be able to safely learn, take responsibility for and feel secure in the digital society.”

The government digitalization strategy is intended to set the direction for how digitalization policy will contribute to competitiveness, full employment and economic, social and environmental sustainability. The strategy includes interim goals in five areas - digital competence, digital security, digital innovation, digital management and digital infrastructure. The digitalization strategy is built upon the conclusions made by the Digitalization Commission.

The Digitalization Commission- Towards a digital society

In June 2012 the right-wing government decided to set up a government commission⁵ – The Digitalization Commission – with the directive to advance the achievement of the objectives of the digitalization strategy and to ensure that the ambitions of the government are implemented. A number of experts were assigned to the commission and a professor from the Royal Institute of Technology (KTH) was assigned as chairman. In February 2015 the new social democratic government decided to amend the directive for the commission to identify strategic areas and to investigate how support in the area should be conducted nationally. The assignment was later prolonged until December 2016, when a final report was to be submitted to the government.

The commission issued a number of reports and the final report “For digitalization with the times”, was submitted to the government in December 2016 (SOU, 2016:89). In this report a state of the art analysis of the effects of digitalization on societal and individual level was presented. The report includes a number of policy recommendations to which social partners as well as other societal stakeholders were asked to respond to. In the following sections the main policy recommendations and the responses of social partners are summarized.

The final report argues that “we” are in the midst of the development from an industrial to a digital society. Digitalisation and new technology are, together with a number of societal trends such as increasing globalisation, accelerating urbanisation, a growing knowledge society, stronger individualisation and greater diversity and pluralism, seen as drivers of a general transformation “that will change nearly everything; what we do, how we do it and what can be done”.

The report identifies five “new and unique features and conditions” of this development:

1. All that is digital generates data. Individuals, public organisations, companies and even things are connected and leave traces in the form of data regarding for example activity and position.
2. Digital solutions can be scaled up to a very large extent. That allows for a broad distribution and a wide use of these solutions at a low cost. They offer users new services with better quality. This means, however, that monopoly and oligopoly conditions can arise, with the negative consequences that entails.
3. Digital technology is developed at a very high pace and this requires flexibility and adaptability.
4. Digitalisation enables and benefits from the advantages of working in networks. Sector boundaries are erased and users become involved in innovation processes and new business models and platforms that connect customers and suppliers are developed, etc.
5. One effect of digitalisation is that individualisation increases. The data provides an in-depth knowledge of individual needs and preferences, which means that goods and services are designed to fit the individual. The significance of time and location also changes. It is possible to search for information, communicate, collaborate, deliver services etc. when you want and where you want. Digitalisation also reinforces internationalization, which for example makes us aware of the goods and services offered in other countries and we expect

⁵ A Government commission has a somewhat stronger status than a Government Public Investigation. It may be seen as a collection of several Government Public Investigations.

the same services in Sweden, for example, regarding treatments for diseases or what education is offered.

The report identifies a number of challenges for public authorities and the state in general. Based on the 2016 reports it is of particular importance to highlight a number of needs:

- Government promotion of digitalisation needs to be stable, continuous and iterative, to increase the understanding of the opportunities and effects from digitalisation and to develop new methods, tools and services.
- The digitalisation of public administration is the key to reaching the ICT policy objective.
- Open data and standards for data are necessary in a digital era.
- Lifelong learning must be enabled. A range of opportunities is needed for individuals to assume responsibility for their professional development, even while still working. A variety of solutions to address the labour market's demand for skills is also needed.
- A national strategy for the digitalisation of higher education needs to be developed. Universities need to promote the development of digital competence in all programs and make their educational offering relevant and designed for both active professionals and for people outside the labour market.
- Personal integrity and privacy needs to be interpreted and evaluated in relation to the digital society's prerequisites and opportunities.
- Skills and ability to ensure data security is of great importance, both for individuals, public institutions, enterprises and other actors, in relation to foreign powers and organized crime.
- The government needs to develop new forms of incentives that are adapted for the digital era.
- New indicators to monitor the progress of digitalisation need to be developed.

The Digitalisation Commission also submitted a number of specific recommendations, see SOU (2015:91), which may be summarized as follows.

- **Legal reforms:** a commission should overview whether the labour law and the consumer law need to be adapted due to digitalization.
- **Social insurance:** a commission should consider changes in the social insurance system.
- **Work environment:** the Swedish work environment authority should define the concept of digital work environment and (if necessary) suggest further instructions and define guidelines and general advice regarding how digital work environment should be treated in accordance to existing work environment legislation and working time legislation.
- **Lifelong learning and education:** establish a collaborative council for digital jobs, which should be given the responsibility to develop and further the provision of customized IT-education at the university level.

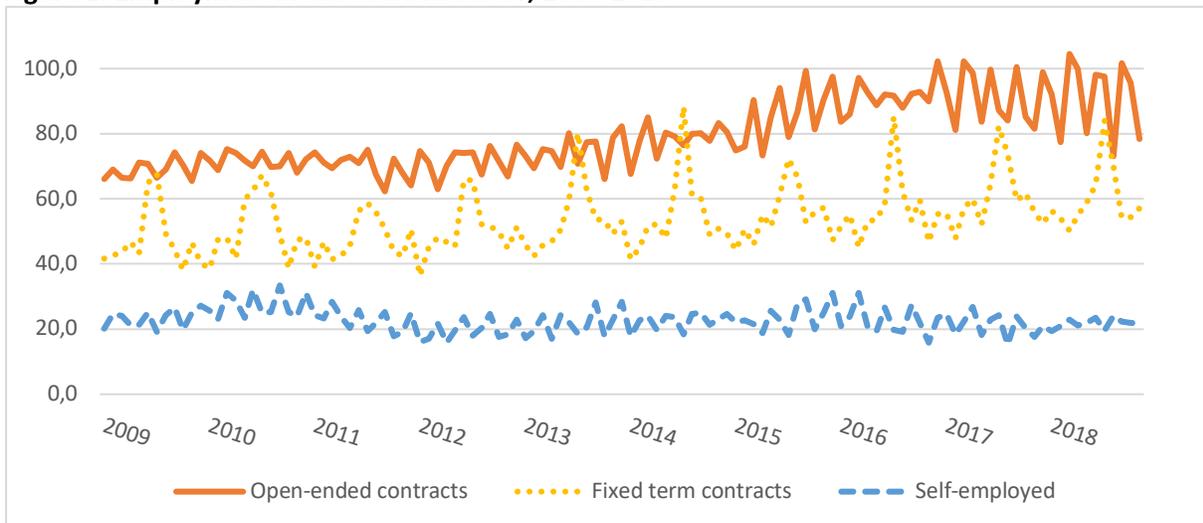
Societal stakeholders (government agencies, regional authorities, municipalities, associations, non-governmental organisations and social partners) were offered an opportunity to respond to the suggestions and recommendations provided by Government Public Investigations. The responses are made in written were published on the government website. The main responses from trade unions and employers' associations are summarized in appendix I. In 2017 trade unions published position papers presenting their view on education and training policies: Oscarsson & Regner, (2017), digitalization (IF Metall, 2017) and (Svenskt Näringsliv, 2016).

5. Digitalization in selected sectors

5.1. Tourism

The Swedish tourism industry is growing. Since 2007, the number of guest nights have increased by 21 percent, from 50 million to 63 million in 2017. The growth of tourism has resulted in growing employment in the sector. Between 2009 and 2018 the average number of employees increased by almost 30 percent, from 140 000 to 170 000 workers. Employment in the sector is seasonal and the peak period is during the summer months, where around 80 000 workers are employed on fixed term contracts. This constitutes almost half of the workforce in the sector. A significant share of the workforce are involved in the sector in other ways than through direct employment. This primarily concerns self-employed. The number and share of alternative or self-employed workers is however decreasing, perhaps as a consequence of increasing demand in the sector in total, where employers are willing to employ workers permanently to a greater extent.

Figure 1: Employment in the tourism sector, 2009-2018



Source: SCB

Social dialogue in the tourism industry

There is sectoral collective bargaining between social partners in the hotel and restaurant sector and specific add-on clauses for the tourism industry. In the sector collective agreements there are normally no specific agreements on restructuring. The hotel and restaurant sector, including the tourism sector, are covered by central restructuring agreements between LO and the central employers' association, Svenskt Näringsliv, for blue collar workers and TCO and Svenskt Näringsliv for white collar workers. However, since 2017 there are specific sectoral agreements on "working time slicing", when employers decide to close a workplace and re-employ workers at a different site, but with reduced working time. There are, so far, no specific collective agreements regarding digitalization or other forms of technological change.

In 2017, however, the Swedish government issued a Government Public Investigation identifying the future government policy for sustainable tourism. In the report, the expert group identifies a number of trends and developments for the Swedish tourism sector and digitalization is treated as a horizontal dimension, cutting across all strategic areas. The investigation provides suggestions

related to the sharing and platform economy, which is seen as having a strong influence and relevance for the tourism sector, in terms of both challenges and opportunities. Social partners were offered an opportunity to respond to the report (see appendix II for a brief summary of the responses). In 2018, the “Future council”, a joint body of the social partners in the hospitality and restaurant sector, asked an independent consultant (Kairos futures) to identify how automatization and digitalisation affect the future employment conditions in the hospitality and restaurant sector (BFUF, 2018). This was seen as a response to and clarification of the government public investigation regarding digitalization. The main conclusions of the report was:

1. Sector growth and diversification

Increasing national and international tourism and a more general development of wealth among larger parts of the society drive the growth of the tourism sector. Digitalisation and automation drive profiling towards “fast functioning” or “genuineness and specialisation” with a lot of personal (individualized) customized services. “Gourmetization” affects consumption towards premium products and services. An increasing number of people are willing to pay more for food- and drinking experiences.

2. Traditional jobs are expected to be reduced until 2030

Despite the positive development, the number of employees in traditional occupations are expected to decrease in the longer term due to increased digitalization and automation. According to the report, around 25-60 percent traditional occupations will be automatized before 2030. How fast and to what degree automatization will affect the sector is dependent on the incentives, for example the labour costs, expected productivity gains and costs of automatization, but also dependent on how automatization can enhance (service) quality. Larger companies and firms with larger workplaces are expected to have better conditions to take advantage of automatization than smaller firms and units.

3. New roles and jobs

The report makes reference to Frey & Osborne (2017) arguing that roles and work tasks related to creativity, perception, muscular movements and social skills are difficult to automatize and that the value of such skills will probably increase. If the sector adjusts quickly to the new conditions many of the traditional jobs may probably change to better meet the challenges in the future. Complex work tasks e.g. to solve unexpected problems, attending to and reacting upon situations, creating new menus, entertaining and educating guests and to set beds are difficult to automatize. These will most probably remain important roles for people also in 2030. The sector as a whole will also be in need of new types of services, for example (SaaS (software as a Service) or RaaS (Robot as a Service) delivered by companies external to the sector. Work places where people and machines work together also put new demands upon both employees and managers. To be able to supervise a robot, to be able to solve problems when the technology fails or to be able to train the artificial intelligence of the company in new knowledge areas, will be valuable competences in an increasingly automated tourism sector.

4. The current employee turnover is a greater challenge than prognosed automation

The hospitality and restaurant industry have a labour turnover of about 25 percent. The challenge regarding labour demand is a greater challenge than the expected automatization. The competition for competent labour is harder, both between sectors and between firms within the same sector. To attract, develop and retain competence will be central challenges during the coming ten years.

5. People with lower education and the young in the danger zone

The report points out that all analyses show that people with lower education and youngsters in general will be affected harder due to the development of automatization. A part of the routine-based work tasks within the hotel and restaurant industry can be expected to be automated, for example kitchen assistants, cleaning and service. Many of the jobs held by youngsters during periods of study and as their first jobs will be possible to automate. This means that education to a higher degree than today, primarily upper secondary school, must teach skills and offer internships. This also means that higher education will be required by firms to a higher extent than today.

6. The need for an open and flexible educational structure

Education at all levels must be better adjusted to the new possibilities and challenges. The development is fast, industry mergers is a fact and the requirements for the ability to develop and adjust will increase. To a greater extent, the educational system will need to be designed for a more flexible, open and clear structure. To make a career within the tourism sector would be easier if you as a student had the possibility to move within the educational system and between the educational system and working life over time. This requires good collaboration between the Swedish national agency for education, the public employment services, the education providers, regional authorities and not least the ability of the industry to formulate demands and offer internships for those who study at all educational levels.

The government initiative for a national tourism strategy may be seen as a form of a starting point of a tripartite social dialogue. The final report and the strategic priorities were responded to by social partners and social partners also assigned an external consultant to identify how digitalization will challenge the Swedish tourism industry in the future. Thus, the government initiative may be seen as an anticipatory activity to prepare social partners for the structural changes to come in the future.

5.2. Financial services

Digitalization has become the hallmark of the financial sector in Sweden, where recent years have seen a significant shift towards e-services depending on its technical and legislative infrastructure, as well as the Swedes acceptance for the new and innovative technology. This was accompanied by a decrease in the number of bank branch offices. Sweden has been able to exploit the opportunities afforded by digitalization. Despite the great shift to electronic services and decline in the number of branches, the number of employees in the financial sector increased steadily from 88910 in 2009 to 93569 in 2016.

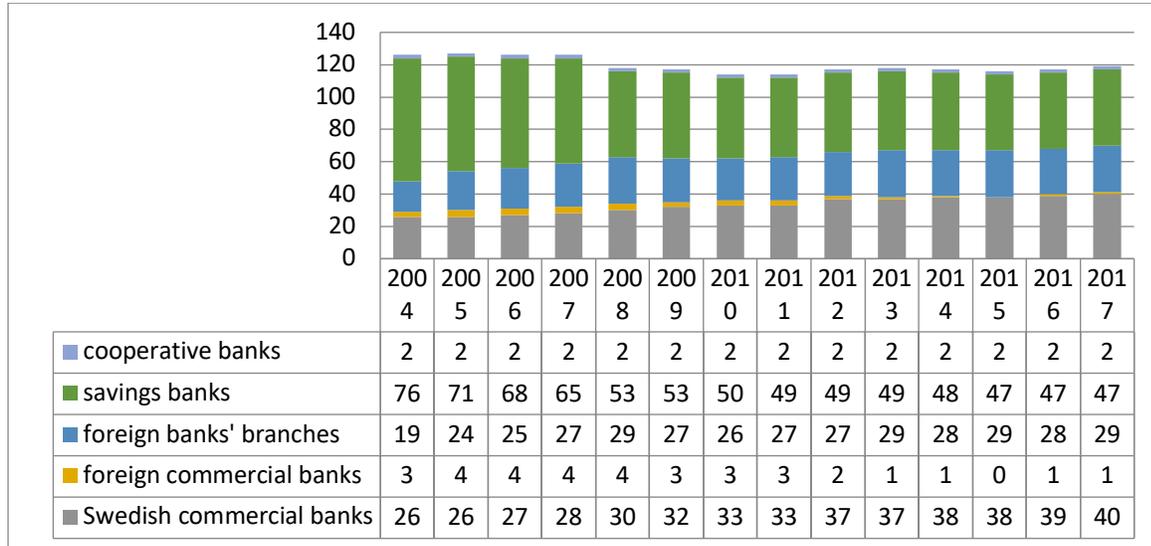
The role and structure of the financial sector

The financial sector is an important growth industry in the country. In 2014, the financial industry accounted for 4.8 per cent of the total output in Sweden, expressed in GDP. The financial sector has an important societal role in providing reliable systems for saving, financing, mediating payments, and risk management.

There are four main categories of banks on the Swedish market: Swedish commercial banks, foreign banks, savings banks, and co-operative banks. In December 2017, Sweden had a total of

119 banks, of which 40 commercial banks, 30 foreign banks, 47 savings banks and two co-operative banks.

Figure 2: Evolution of banks in Sweden



Source: Swedish Banker's Association (Svenska Bankföreningen), Bank & finance statistics. ⁶

Since 2004 the number of commercial banks in Sweden has increased from 26 to 40. Swedish commercial banks are divided in three groups. The largest are the four big banks: Swedbank, Handelsbanken, Nordea, and SEB. These banks are important actors on the most segments of the financial market. The second group is savings banks that have been converted into joint stock companies, often with Swedbank as a shareholder. The third category constitutes other Swedish commercial banks with a diverse business focus and ownership structure.

The financial sector in Sweden has seen fast development in recent years. Established companies have expanded their existing activities and many new companies have entered the market. Swedish banks have also expanded their activities in the local market, as well as increased their activities abroad, especially in the other Nordic countries, the Baltic States, and other northern European countries. Another important change in the Swedish financial sector has been the shift of activity between banking and insurance activities. All large banks have operations within the life insurance sector and many of the large insurance companies have their own banks.

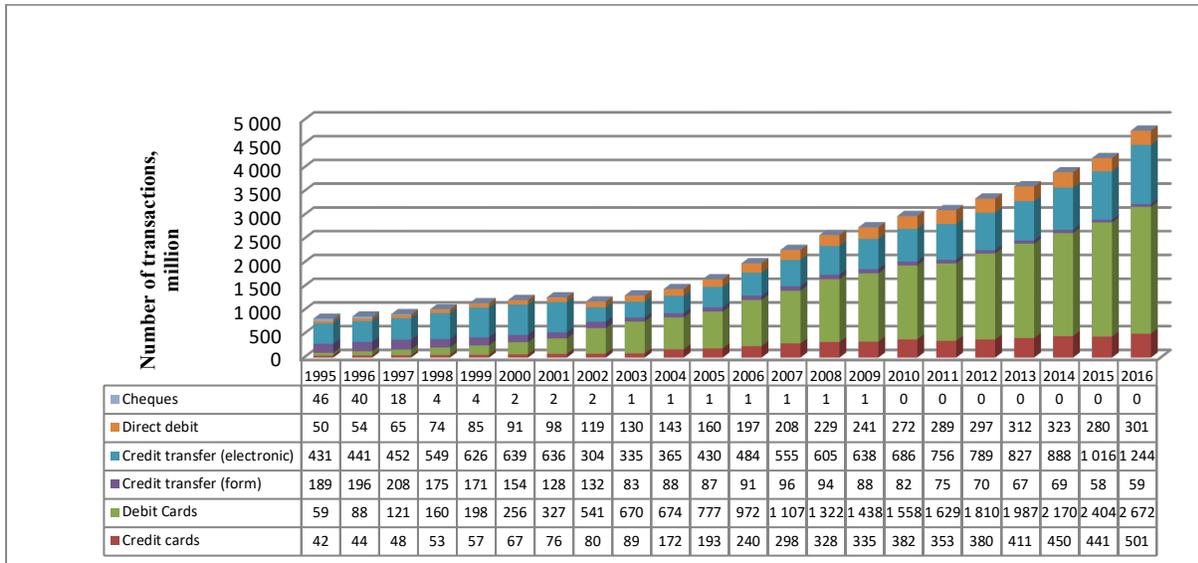
Digitalization of the Swedish banking sector: Towards a cashless society

One of the most important developments in the Swedish financial sector is digitalization and the development of electronic banking. Sweden is one of the most cashless countries in Europe. More than 95% of transactions are digital. Many of the major banks operate on a cash-free basis. Electronic banking and electronic payment methods are developing in a fast pace. A Study from

⁶- <https://www.swedishbankers.se/en-us/the-swedish-bankers-association-in-english/statistics-publications/bank-statistics/>

Forex Bonuses finds Sweden takes the second place after Canada among the 20 largest economies in the adoption of cashless systems (amount of credit cards per person, amount of debit cards per person, cards in issue with contactless functionality, growth of cashless payments over 5 years, payment transactions made using non-cash methods, and people aware what mobile payments option they have available to use).

Figure 3: Evolution of electronic payments, 1995-2016



Source of data: Swedish Banker's Association (Svenska Bankföreningen), Bank & finance statistics, *Sweden's central bank (Sveriges Riksbank)*.

At the same time the use of paper-based payments such as giro forms, cheques and cash payments have decreased and replaced by electronic payments of various types. As an example, the use of different kinds of cards has increased from 101 million transactions in 1995 to 970 million transactions in 2005, and reached to around 3200 million in 2016. During the same period, the use of cheques has in practice ceased.

There is also an increasing demand for e-invoice. With e-invoice, the bank customer receives the bill electronically directly at the customer's internet bank with all the necessary information and the customer must thereafter simply approve it. It increased during a decade from 484 million in 2006 to 1244 million in 2016.

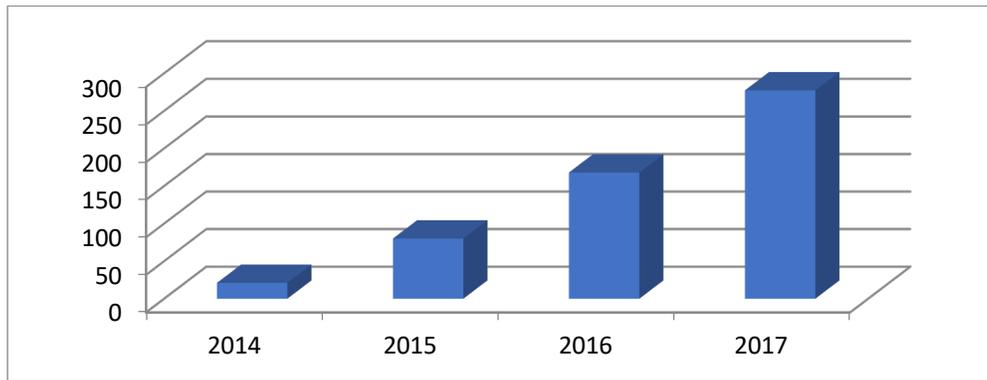
Mobile payments is another important development. Almost all banking services are reachable through a smart phone, implying that individuals can reach their bank account through their mobile phone. However, the most dramatic development consists of payments between individuals via mobile phones. In December 2012, an app for mobile payments through smart phones, was introduced in collaboration between six of largest banks (Swedbank, Nordea, SEB, Handelsbank, Danske, and Länsförsäkringar bank)⁷ and the Swedish central bank (Sveriges Riksbank).⁸ The app - Swish - offers a real-time account-to-account transfers, enabling private individuals to send

⁷ - <https://www.getswish.se/om-swish/>

⁸ - FinTech – increasingly rapid interaction between financial operations and technological innovation, FINANCIAL STABILITY 1/2017, Sveriges Riksbank, PP 45-48, P 46.

money with their smart phone to another individual smart phone number. The money is recorded directly on the recipient's bank account. In 2018 more than 6.5 million people used Swish,⁹ over 65% of the Swedish population. The number of swish transactions increased from 21 million in 2014 to 277 million in 2017, where the increase percentage 1219%.

Figure 4: Number of Swish transactions, 2014-2017, millions.



Source: Swedish Banker's Association (Svenska Bankföreningen), Bank & finance statistics.

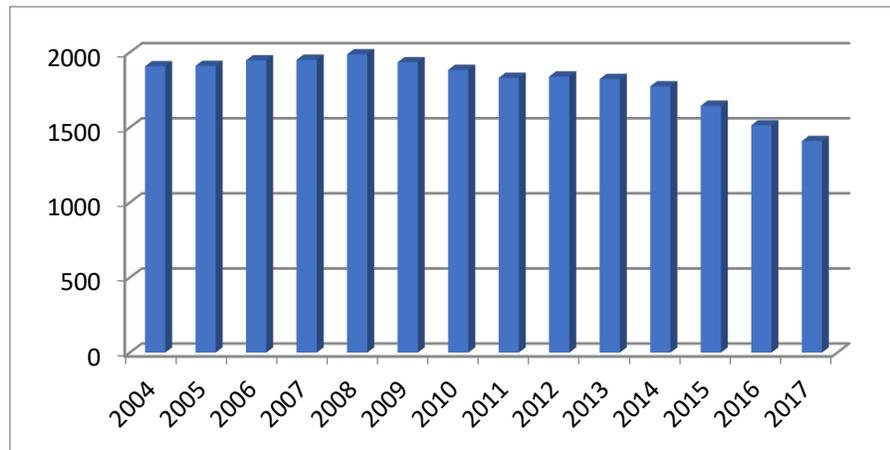
According to a survey conducted by the Riksbank (the Swedish central bank) Swedish households increasingly use electronic means of payments, such as bank cards and Swish, while reducing the use of cash. In 2018, around 93% of Swedish citizens had used a debit card in the past month and 62% had used the Swish mobile payment service. Only 61 % of households had used cash in the past month. Card payments with credit cards retain its position as the favourite transaction method among Swedish households. Mobile payments, such as Swish, are still used to a very limited extent in physical stores. The survey also shows that in eight years, the proportion of respondents using cash at their last purchase had decreased from about 40 percent in 2010 to 13 percent in 2018.¹⁰

The increasing reliance on electronic payment methods and the decreasing use of cash also caused a significant decline in the number of Automatic Teller Machines (ATM) in recent years, from 3319 in 2009 to 2850 in 2016. Digitalization has also affected the number of branch offices in Swedish banks. In 2004 there were 1,907 branch offices in Swedish banks. In 2017 there were only 1,409 offices left, a reduction by 26 %. Even though the number of branch offices have decreased in the last ten years, branch offices are still important as a way to meet the customer. However, more than half of the branch offices are cashless. They are not able to neither receive or deliver cash.

⁹ - <https://www.getswish.se/sv-press/statistik/>

¹⁰- <https://www.riksbank.se/sv/statistik/betalningar-sedlar-och-mynt/betalningsstatistik/>

Figure 5: Evolution of bank branch offices, 2004-2017



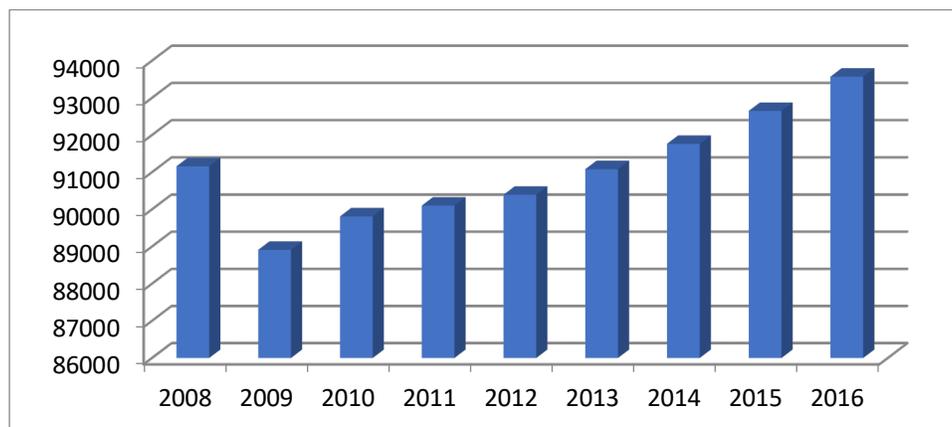
Source: Swedish Banker's Association (Svenska Bankföreningen), Bank & finance statistics.

The digitalization of the Swedish financial sector has not only contributed to cost reductions and more efficient transactions. It has also reduced the number of bank robberies and cash thefts are at an all-time low.¹¹

Changing employment in the financial sector

While digitalization has contributed to a reduction of the number of branch offices in the banking sector, the number of employees in the financial sector in general has increased, indicating a structural change of the sector, primarily through mergers of independent savings banks and a stronger emphasis and concentration of large commercial banks. As figure X shows, the number of employees in the financial sector increased continuously after financial crisis. Thus, despite the dramatic job loss in the sector in 2009, employment has increased beyond the numbers before the crisis.

Figure 6: Employees in the financial sector, 2008-2016



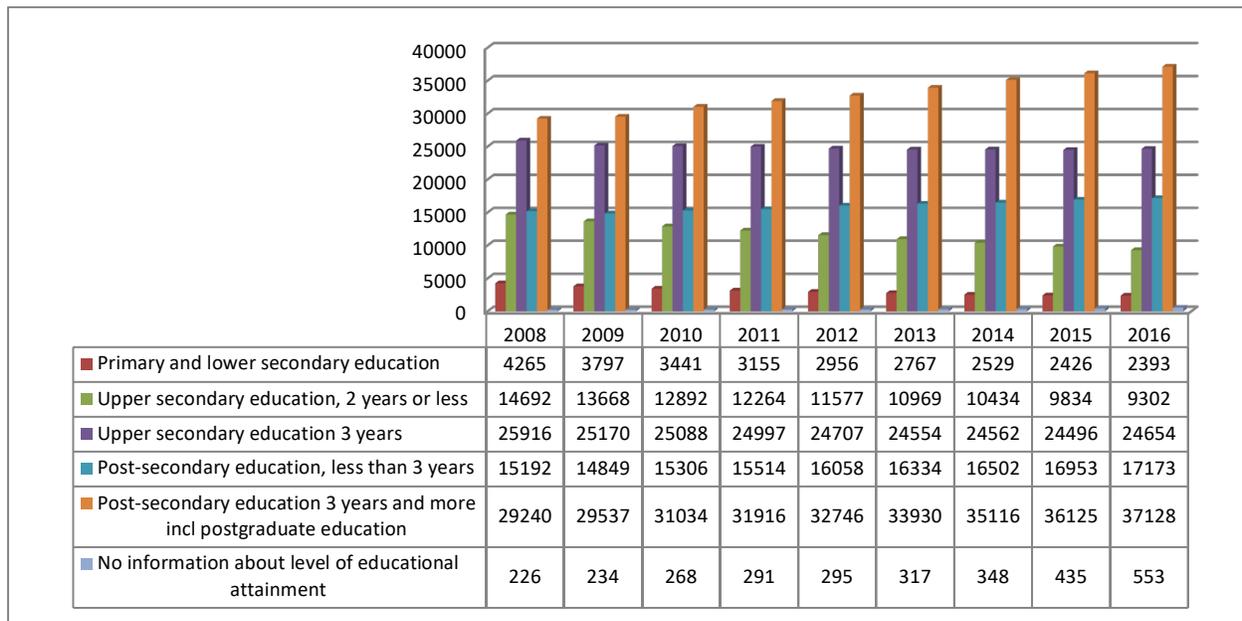
¹¹- <https://www.gemalto.com/review/pages/digital-sweden-then-and-now-mobile-payment.aspx>

Source: Statistics Sweden (SCB)¹²

The banking sector employs the largest part of employees in the financial sector. The number of employees in the largest four big banks in 2017 was (29 382), represent around 74% of all employees in banking sector in Sweden (39 773). Bank employment has, however, remained rather stable since the financial crisis, varying around 40000 employees.

The structural changes in the financial sector is also reflected in the changing educational level of employees. As shown in figure 6, the number of employees with education less than post-secondary education decreased continuously from 44873 in 2008 to 36349 in 2016. On the other hand, the number of employees with post-secondary education increased, especially for employees who have post-secondary education 3 years and more including postgraduate education from 29240 in 2008 to 37128 in 2016. Thus, the structural changes are combined with a competence shift. It is, however, difficult to say whether the competence shift is driven by digitalization. The general increase of the educational level among employees in the sector, may be driven by the generational shifts among the workforce. The older cohort of employees, with only primary and lower secondary education have left the industry through natural transition, i.e. retirement, while new recruits most often have a post-secondary education or higher. Thus, the shifting education level among employees, may rather be seen as a reflection of the shifting access to education in the society than as a consequence of digitalization or shifting employer demands.

Figure 7: Development of education level among employees in the financial sector, 2008-2016



Source: Statistics Sweden (SCB)

¹²http://www.statistikdatabasen.scb.se/pxweb/en/ssd/START_AM_AM0207_AM0207J/NattSNI07KonK/table/tableViewLayout1/?rxid=e0aff29a-e395-40e8-bd5b-243c7c492f64

Trade union position on digitalization and skills development

Social dialogue in the Swedish financial sector is an ongoing process and Finansförbundet¹³, the Trade union for financial sector employees, play an important role in the formulation of strategies for the future in the light of digitalization. According to a report “*Skills development: For employment security in a digital labour market*” Finansförbundet (2016) digitalization and globalization are fundamentally changing labour market in Sweden. The report states that jobs disappear and new ones are being created at an ever faster pace. The increased rate of change affects all parties. In order to continue to be employable in the digital future, we must regularly develop our knowledge. “The education we have gets an even shorter best-before date and we as trade unions must ensure that enough time and money are spent on skills development.” Continuous skills development is the same as increased job security.

The report is based on a survey of almost 5,000 trade union members, regarding how they look upon their opportunities to develop skills in the context of their employment. The survey showed that there are shortcomings in how employers in the financial industry handle their employees' skills development. Two out of three employees have received some form of competence development in the last year. But only 50% of the financial employees state that they have an individual skills development plan, and almost 40% of all planned skills development activities were implemented. The most common reason for this is a too high a workload, which makes it difficult for employees to devote time to their own skills development. The high workload also means that employees are forced to use part of their free time for skills development, that should be carried out during working hours. 85% of all who have received some form of training during the year, considers that they have benefited from their skills development and that it has helped them to develop in their professional roles. Employees in the financial sector allocates less time to skills development than other comparable employee groups. Only one third believes that the allocated time for skills development is enough for them to feel adequately updated in their professional roles.

According to the report, employers in the financial sector must establish a more strategic approach to skills development of its own staff. It is also suggested that all employees “must have an individual plan for their own skills development and employers must ensure that both time and financial resources are allocated to staff training”. All of this is already included in the collective agreement, but the survey showed that the agreement is not always applied as intended. According to the report, it is likely that there is a lack of knowledge in the workplace about employees' right to further education and the employer's responsibility to provide it. Therefore, the trade union will work to increase the awareness of the financial staff about the importance of skills development and encourage them to monitor and defend their right to further education.

“Although the financial industry has become increasingly dependent on digital technology, well-trained employees is capital of the future in the financial industry. Even in a digital landscape, human interaction will never be out of date. Digital technology combined with human creativity, social and personal skills will create a successful financial industry in the future.”(Finansförbundet, 2016)

¹³ *Finansförbundet* is one of Sweden's oldest trade unions. It was formed in 1887 and was called the Swedish Banking Association, which is also Sweden's largest trade union for financial employees in the banking and finance industry with more than 32,500 members; it is a politically independent trade union and is one of the trade unions included in the central organization TCO (The Swedish Confederation of Professional Employees). <https://www.finansforbundet.se/in-english/>

The report concludes with a number of policy recommendations regarding education and skills development:

- Members should be given the possibility of continuous skills development during working hours.
- Competence development agreements should be available to all institutions in the financial industry, and the form of competence development must be adapted to individual circumstances.
- Collaboration between colleges, universities, trade union and employers. Developing and adapting educational offerings to professionals already, and increase the maximum age of the student in the education system. As well as strengthening mathematics education throughout the public education system.¹⁴

In another report (Finansförbundet, 2017) the financial sector trade union emphasized that competence development is not only an individual project. It is also described as crucial for the ability of the Swedish financial industry to compete with its global competitors. Developing and promoting skills among employees is described as a common interest for both employers and employees.

According to the report, inadequate skills development leads the employer to replace existing with new employees. It is described as a waste of competence, which is costly for both employers and employees. The trade union wants to “continue discussions with employers and find a way forward to ensure that members receive competence development that promotes a sustainable and competitive financial industry, today and in the future”.

Competence development described as an investment, both for the employee and the employer. “For the employee, it is about increasing employability, making a career and getting better salary development.” According to the report, the employer also has good reasons for investing in skills development; increasing competitiveness, more motivated employees, and also a way to attract new employees. “Competence development is therefore seen as a central issue”(Finansförbundet, 2017).

In order to ensure that all employees get the skills development they need, the report stresses, “it is crucial that employers and unions have a common definition of what skills development means, and a consensus on the division of responsibility”. Regarding the responsibility for competence development, there is, according to the report, a consensus that employers and employees have shared responsibility for the development of skills. “The employer is responsible for the prerequisites to skills development. Then it is up to the employee to carry out the actual skills development.”

Focusing on skills development is described as an “investment in innovation”. “It is about taking advantage of the opportunities that come with digitization, automation and globalization”. The lack of skills and time to develop it represents barriers to taking advantage of the opportunities to develop and streamline activities. According to the report, the employer needs a systematic and quality assured process to ensure the employee's skills development. This should, according to the trade union, include an overall perspective in the process where competence development is planned and organized. It is about seeing skills development as part of business development and

¹⁴- Finansförbundet, *Kompetensutveckling: för anställningstrygghet på en digital arbetsmarknad*, 2016, PP 1-18.

not as a separate part. Although the major banks have already developed systems for skills development, the trade union is looking for more needs to be done (Finansförbundet, 2017).

5.3. Postal services

As a way to prepare for the entry into the European Union the Swedish postal market was made open for competition already in 1993. This had dramatic consequences on the Swedish Post (Posten), which at the time had around 70 000 employees. The state authority, Swedish Post, was transformed into a publicly owned company and in a long restructuring process, lasting for about 15 years, the Swedish Post subsequently reduced the number of employees to around 30 000, in an effort to meet the new competition as well as responding to the decreasing letter deliveries, driven by increasing use of e-mail and other digitalised communication channels. In 2001 a process leading to the closure of almost all post offices, moving towards a larger number of postal outlets in supermarkets, mini-shops or petrol stations, was started. At the same time, a number of competing private postal service operators were established and in 2018 the Swedish postal market was dominated by two main competitors: PostNord (formerly the Swedish Post¹⁵) and Citymail¹⁶.

According to the Swedish Telecom and Post Authority, PostNord is the absolute biggest player in the postal market, accounting for nearly 79 percent of all distributed letters. The market share of PostNord decreases slightly and more than 20 percent of the letters are now delivered by Citymail, in cooperation with the morning newspaper distributors, or local postal operators.

As a response to reduced letter volumes the government in 2015 initiated a Government Public Investigation concerning the consequences of digitalization for the Swedish postal sector (SOU 2016:17). The purpose was to identify how the government could support a transformation to digitalised postal services through changing rules and regulations.

The starting point of the government investigation was the changing nature of communication patterns between citizens and its potential consequences for the postal sector. As communication patterns change, letter volumes decrease. The Swedish postal market has been characterized by decreasing letter volumes for a long period of time. At the same time, parcel deliveries have increased due to increasing online sales. This was particularly emphasized during 2017, when postal terminals were over crowded by online deliveries from China.

The postal market is regulated primarily through directives requiring postal service operators to deliver letters the next day and through price ceilings for service delivery. Existing rules for overnight delivery and price ceilings were introduced almost two decades ago when the conditions for fast digital communication were not the same as today. The aim of the investigation was

¹⁵ As a preparation for internationalization, primarily by acquiring the Danish Post, the Swedish Post was renamed to PostNord in 2009.

¹⁶ The company was founded in 1991 as a private alternative to the state monopoly. Since its founding, the company has gone bankrupt 2 times, 1992 and 1995. In 2002 the company was acquired by the Norwegian Post and was later included in the Norwegian logistics group Bring under the name of Bring Citymail, but in March 2018 the company was sold to the German investment firm Cimase Capital Consult GmbH and subsequently returned to the original name CityMail.

therefore to establish rules that ensure that there is a universal postal service across the country, provided at reasonable prices, without state aid. The requirements of the postal operator designated to provide the universal postal service should be proportionate while responding to the users' future needs. The Investigation therefore proposed replacing the requirement for overnight delivery in the universal postal service with a two-day letter delivery service where at least 95 percent of the letters should be distributed by the second working day counting from the date of submission.

The proposal was intended to ensure that there is a universal postal service that will meet the needs of society in an effective way to send letters. Postage increases for letters up to 250 grams posted with the new service should be limited by a price ceiling that should be adapted to the expected volume cuts. Through the proposal, the regulation will continue to guarantee a basic service to a normal rate for the users who send letters.

The investigation further estimates that the scope of the social services should be clarified in the parts relating to exemptions from five-day distribution and where the distribution of postal items is to take place. The proposals allow the National Post and Telecom Agency to regulate this if necessary.

With a clearer regulation of where the universal postal service has its last outpost, it becomes easier to define the postal service's role in government efforts to ensure rural development.

Moreover, the investigation proposes that postal service providers should provide information to the government or to government authorities about their finances and activities necessary for the follow-up and monitoring of the postal market. Today, the National Post and Telecom Agency is unable to request documentation from, for example, package distributors who are not authorized to carry out postal operations. The basis is necessary for the National Post and Telecom Agency to be able to continuously investigate and analyse the need for changes in the government commitment.

Finally, the investigation proposes that the postal code system be kept available at a cost-oriented price on the provider's website. Enabling the postal code system at a regulated price can help make it easier for small businesses to start up business within the e-commerce segment.

Social partners as well as other stakeholders related to the postal market were invited to respond to the Government Public Investigation. Most actors were positive to the suggested changes. The new regulations were enforced from 1st January 2018.

At Post Nord, the publicly owned postal service operator, there is no specific collective agreement on digitalization, but as in almost all other companies there are specific collective agreements specifying the local conditions in cases of collective redundancies. In this collective agreement there are negotiated deviations from the legal requirements, such as extended dismissal periods in cases of forced redundancies and deviations from the last-in-first-out rules. In such cases the restructuring agreement specifies that a necessary condition to take into account "is the knowledge and interest of employees, as well as their ability to use and develop new technologies and actively contribute to organizational changes". Particular care and consideration should be taken to the specific conditions for older employees and workers who have been absent due to health reasons. To support employee transition to new jobs, the collective agreement specifies generous conditions beyond what is stipulated in law and in central collective agreements.

5.4. Manufacturing sector

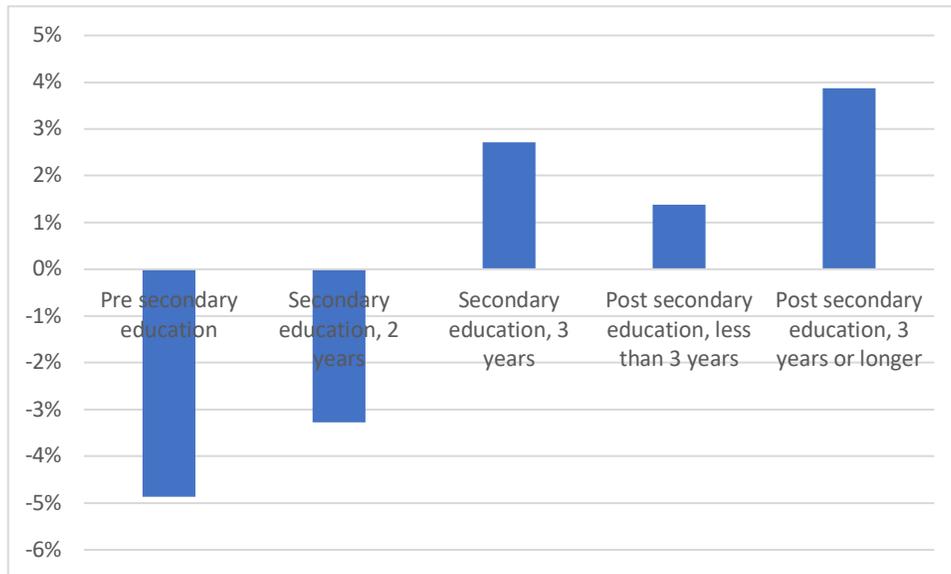
The Swedish manufacturing industry shows a weak employment trend. During the second quarter of 2017, 534142 employees were employed in the manufacturing sector, which represents a decrease of 3 percent since the second quarter of 2016.¹⁷ Together with the industrial service sector, the manufacturing industry employs about 1.2 million people in Sweden, which corresponds to about 25 percent of the Swedish labour market.

The development of employment differs between different industry segments. The main trend is that employment is decreasing. The decrease has been mainly in the chemical and pharmaceutical industry, the electrical equipment industry, the pulp and paper industry, as well as the steel and metal industry. At the same time, the Automotive sector shows significant growth (5% since 2016), which, together with the wood industry, the food industry, the non-metallic mineral industry and the machinery industry has increased by more than 8000 employees. It is worth noting that there are only a few sub-sectors that show an increase. Other sub-sectors have fewer employees in 2017 than in the same period in 2016.

The evolution of employment is in line with the long-term trend in which the manufacturing industry has difficulty retrieving the level of employment that existed before the financial crisis in 2008. Employment in the manufacturing sector has continually decreased since then. There has also been a change in the composition of employees. Employees in the manufacturing sector are becoming increasingly highly qualified. It is often said that globalization and the use of new technologies lead to a polarization (OECD, 2017), where the labour force is divided into an ever-increasing group of low-skilled and an ever-increasing group of highly educated, while at the same time reducing the middle group. This development is not very well in line with developments in the Swedish manufacturing sector. As shown in figure 7, there has been a gradual upgrade of the education level among industry employees. An increasing proportion of the employed have undergone 3 years of secondary education or higher. At the same time, the proportion of workers with 2-year secondary education decreases. Employees who have undergone 2 years of secondary education still dominate in numbers. But since 2011, the number of higher educated (with post-secondary education 3 years or longer) is more than the number of employees who have only completed primary school. This means that we see a gradual increase of the skills level in the manufacturing sector, at least in terms of the formal qualifications of employees.

Figure 8: Changing education levels in the manufacturing sector, 2008-2015. (%)

¹⁷ This change includes a statistical reclassification of Ericsson AB from the production of communication equipment to computer-producing companies and the division of the company into different business units. A large number of Ericsson employees have been reclassified to what we commonly term the industrial services sector, which largely sell their services to companies in the export-oriented manufacturing industry.



Source: SCB

There are certainly several reasons for this change. On the one hand, the increased number of higher educated is a consequence of changing qualification requirements and changing work tasks. The easier jobs disappear or are rationalized and the more complicated jobs increase in number. On the other hand, the change can be seen as an expression of long-term changes in the education system. Older employees, who never had the opportunity to move to secondary education, have gradually left for retirement. The change in the education system, where more and more undergo upper secondary education before approaching the labour market, plays a major role. The truth lies probably somewhere between these two explanations.

Tripartite social dialogue: The Smart industry policy

In response to the relatively weak employment trend of the Manufacturing sector, the Swedish government initiated the Smart industry policy in 2015. The minister of industrial affairs presented the rationale for the strategy:

“Sweden's prosperity is based on innovative and successful export companies, who repeatedly manage to renew and reclaim production and products as markets change. Over the years I have met many of these companies in their factories and at their design and research center across the country. I have also encountered them in all corners of the world during my export promotion trips to key markets. I have often also been impressed by their ability to solve new challenges. Whether it's about getting the right skills, getting into a new market or renewing yourself or its product range.

The innovation capacity of employees and companies in manufacturing and industry services is still the foundation for Sweden's prosperity. This can be perceived as obvious. But for too long, Swedish industry has been treated as a historic relic on its way to the post-industrial service community. And it has had a high price.

When the financial crisis hit the economy with full force, the desire to cushioning the consequences was missing and many jobs were lost in Sweden. In many of our competitive countries the actions were more resolute. In Germany, for example, there was a completely different preparedness and, with the help of short-time work and education, German industrial companies were able to handle the crisis without unnecessary redundancies and, at the same time, stood ready when the rise came. More and more countries have also developed industrial

strategies to improve the conditions for industry and attract new investments. “(Michael Damberg, Ministry of Industrial Affairs, 2015)

The main idea behind the policy was to change the image of the manufacturing industry as a relic of the past and to put focus on the future, through innovation, increasing investments and new technologies. Climate change and digitalization were seen as important part of the new strategy.

“In order to cope with the major challenges that climate change and an aging population mean for our society, we need the innovation force of industrial companies and their employees. The forest industry can assist with renewable materials and fuels, the automotive industry with safer and more sustainable transport, and information and communication companies enable the connected, smart and resource-efficient society.

Swedish industry faces challenges. Digitalization further drives the industry's already high transition rate, opens up new business models and makes others unnecessary. Especially for small businesses, it is a huge challenge to keep up with the rapid technology development.

Digitalization is at the heart of several industrial strategies of many countries, not least in Germany's Industry 4.0. The digitalization of industry's production and products and the ability to convert growing data to new business is crucial for the industry's future competitiveness. But the perspective needs to be broader than that. At the same time, increasingly high demands are made for long-term sustainable production and resource utilization. Therefore, Sweden's new industrialization strategy aims beyond the connected industry and also includes the ambition to cope with the renewal that growing sustainability demands place on industry and its products.” (Michael Damberg, Ministry of Industrial Affairs, 2015)

The ambition of the government's new industrialization strategy was to strengthen companies' capacity to change and to enhance industry competitiveness. To do so four focus areas were selected:

- “Industry 4.0 - Companies in Swedish industry should be leaders in digital development and exploiting the potential of digitalization.
- Sustainable production - Increased resource efficiency, environmental considerations and more sustainable production will contribute to industry's value creation, job creation and competitiveness.
- Industrial skills boost - The skills supply system will meet the needs of the manufacturing industry and promote its long-term development.
- Test bed Sweden - Sweden will be a leader in research in areas that help to strengthen industrial production of goods and services in Sweden. .” (Michael Damberg, Ministry of Industrial Affairs, 2015)

The government's new industrialization strategy was described as an important step in the process of taking advantage of the new industrialization window currently available for Sweden. Automation and digitalization was described as providing new opportunities for profitable and sustainable production in a “whole new form - connected, more automated and knowledge-intensive”. “With common priorities and common activities, Swedish industry has every chance of winning from the transformation that is now taking place and becoming a world leader in innovative and sustainable industrial production of goods and services.” (Michael Damberg, Ministry of Industrial Affairs, 2015)

Industrial dialogues

As a way to implement the smart industry strategy, the government introduced what they call industrial dialogues. The industrial dialogues were a sequence of seminars designed to take place continuously during the government term (2014-2018). Different stakeholders are involved in each dialogue, dependent upon their relevance and expertise related to a pre-specified theme. The dialogues were co-arranged with social partners, primarily Almega (the Employers association for the Swedish service sector) and the Industrial council (the joint body governing the Industrial Agreement). The Industrial dialogues were typically organized as a one-day seminar, starting with invited experts providing their view of a number of general questions related to the theme. After a lunch break, representatives from different stakeholders including government representatives discussed the topic of the day. Below is a list of themes which have been covered between 2014 and 2018.

- Cyber security and reduced process emissions.
- Promotion of industrial investments
- Restructuring and matching in the labour market
- Logistics, transport and infrastructure
- Digitalization
- Sustainable production
- How do we prepare for shifting business cycles and restructuring?

The themes cover a relatively broad range of issues. Several of them were related to digitalization and restructuring. Based on information made available through the government website (www.regeringen.se), I will in the following section review the outcomes of the three most important dialogues: Digitalisation, Restructuring and matching in the labour market, and Shifting business cycles and restructuring.

Digitalization (February 2016)

The theme for the industrial dialogue in February 2016 was how digitalization could be seen as a prerequisite for the competitive and innovative power of the Swedish manufacturing industry. The Minister of Industry and Innovation, Mikael Damberg and IT Minister Mehmet Kaplan participated. The industrial dialogue began with a brief review of the government's (re)industrialization strategy: Smart industry:

"With smart industry, we point out areas that we think can meet the structural change industry faces, based on digital developments. We need the power of industry and industry service companies to meet our major social challenges such as globalization, climate change and demography," said Mikael Damberg.

Some of the areas raised by participants during the expert seminar and industry dialogue were how to exploit the potential of digitalization for increased competitiveness to ensure the provision of skills, the need to reconsider and develop their business models and the role of the state in terms of infrastructure, standardization and open data.

"Developing digitalization policy cannot happen separately, it must be done at all levels in society and in all policy areas. The better the conditions we create, e.g. in terms of infrastructure, the better the conditions for innovation. Here the conclusions of the Digitalization Commission are an important starting point, Mehmet Kaplan said.

The industrial dialogue was preceded by an expert seminar under the direction of State Secretary Eva Lindström, where the participants were asked to discuss and respond, among other things, to the following issues:

- What are the strengths of the Swedish industry and how can digitalization strengthen them further?
- What bottlenecks and obstacles exist for industry digitalization?
- What are the biggest challenges for SMEs and subcontractors in order to make use of digitalization?

Restructuring and matching (February 2017)

The theme for the second industrial dialogue was restructuring and matching within the Swedish manufacturing industry and industrial services sector.¹⁸ The main themes of the seminar was: What are the future needs in the labour market? What opportunities do small and medium-sized companies have to work strategically with restructuring and matching? What role should the regional level have?

"A well-functioning system for competence management is ultimately about how the industry based in Sweden can continue to compete in a global market. With the government's knowledge lift and 70,000 new training places, there are now new opportunities to strengthen the industry's skills supply. Now the industry has a responsibility to stand up and make use of the places of education, said Minister of Industry and Innovation Mikael Damberg".

The opportunity for further training for professionals, constant restructuring and a transition that takes into account digitalization were areas discussed by participants during the industrial dialogue. Anna Ekström highlighted the importance of lifelong learning to ensure the right skills and opportunity for career change. Some other areas raised by participants were the importance of increasing the attractiveness of the manufacturing industry among young people, opportunities for internships and information for new arrivals about the opportunities in the Swedish labour market.

The industrial dialogue was preceded by an expert seminar led by state secretary Eva Lindström. Participants were given the opportunity to discuss and give a response based on, among other things, these issues:

- What are the most central needs that companies see associated with restructuring?
- How can validation and skills mapping be developed to be used proactively to visualize competencies in transition?
- What efforts are most important to support the further education of professional workers?

How do we equip ourselves for business cycles and restructuring? (May 2018)

In the beginning of May 2018, the government invited experts and stakeholders from government authorities and social partners to discuss how Sweden can be equipped to take on future challenges.¹⁹ The background of the dialogue was the parallel changes taking place, driven by changing business cycles and new technologies. The basis for the discussion was that the Swedish manufacturing industry is doing well. The output growth is strong, exports of goods increase and investments are at historically high levels. However, we know that business cycles will sooner or later change. At the same time, technological development is rapid and there is a great need for firms to change the composition of skills.

¹⁸ At the meeting, three ministers participated: Minister for Industry and Innovation, Mikael Damberg, Minister for Employment, Ylva Johansson, and Minister of Higher Education and Knowledge development, Anna Ekström.

¹⁹ The Minister of Industry Mikael Damberg and Minister of Finance Magdalena Andersson were hosting the meeting and representatives from the Industry Council and Almega participated. Particularly invited were also representatives from AB Volvo, Holmen AB, WSP Sweden AB and Combient AB.

"It is a paradox that in the boom you do not have time for skills development, and in a recession you cannot afford it," Secretary of State, Niklas Johansson, when he started the seminar.

"Most analysts believe we can expect a more normal decline than in the 2008-2009 financial crisis. But when there is a downturn in the economy, fiscal policy is likely to play a more important role than before. One challenge is to know if a downturn is cyclical or structural," said Karolina Ekholm, State Secretary at the Ministry of Finance.

Hans Lindblad, Director General of the Swedish National Debt Office and State Secretary during the financial crisis, spoke of the importance of acting promptly, clearly and resolutely, avoiding temporary targeted measures as they give less effect than broad and general measures. He also emphasized the importance of communication - it is about constantly telling what is being done.

The expert seminar featured among other things:

- For companies it is paramount to secure skills before and during a business cycle. It was stressed that public authorities at different levels can contribute in many ways. It is important to use existing structures and palettes of solutions, to create action plans and identify what can be scaled up quickly.
- The short-time working system was raised as a central feature in order to retain employees in temporary downturns, as well as to be more neutrally designed in relation to competing countries.
- New models for lifelong learning are needed.
- The financial crisis showed the importance of government tools, such as Almi's corporate loans and export credits from the Export Credit Commission, when corporate lending opportunities on the regulated market drastically deteriorated. These experiences, it was argued, provide a good basis for designing well-functioning tools for a future decline.

"It's gratifying that it's going well for the Swedish economy and industry right now, but we're going to take good care of discussing how to meet and even use a decline to stand stronger," Mikael Damberg.

During the industrial dialogue it was said that a cyclical downturn will push on and strengthen the digital structural transformation. Furthermore, the skills change was discussed and that a new culture for lifelong learning is needed both at the companies and in the education system. For businesses, it is important to spread the business risks and try to work counter cyclical. The industry representatives asked the government to set up a competitive system for short-time work and incentives for investment in skills development.

Social partner responses

In a common position paper, the Industrial Council (the collaborative body for social partners in the manufacturing industry) address their agreed upon approach to how the educational system should be reformed to meet the challenges of globalisation and digitalization to strengthen the competitiveness of the Swedish manufacturing industry. The report was presented in January 2018 and is one of several coordinated responses to the government's Smart industry strategy.

In the report the Industrial Council presents critique of the public educational system. In their view education providers at different levels are not coordinated to enable the possibility for individuals to be educated at different stages in their lives, educational programs, independent of levels, do not

provide the skills relevant for the industry and that the educational system is inflexible, not able to adapt quickly to changing needs of employers.

According to the Industry Council, globalization and digitalization provides new conditions that stresses the need for reforms in the public educational system.

“Globalization means that a major shift in the world economy is taking place. Most of the growth is now happening in developing countries where large number of people live and in these countries the supply and demand for knowledge and innovation is increasing significantly. They climb rapidly into the global value chains and compete increasingly with skills and decreasingly with lower production costs. For the Swedish industry, it is important to find a profitable niche in these global value chains. Globalization also increases the mobility of people across borders. People with education are looking for creative regions while many people flee from tyranny and poverty. Refugees coming to Sweden make a great contribution to the labour market. However, since many of them lack both education and language skills, it is difficult for them to find employment in the manufacturing industry.”(Industrirådet, 2018)

The report further stresses that digitalization provides new skills requirements in the manufacturing industry:

“We are now at the beginning of what we call digitalization, i.e. where data, processes, AI and 3D manufacturing completely change terms and conditions for manufacturing and enterprise. It will further tighten competition and push for productivity development. Compared to earlier major structural changes, digitalization is faster and more comprehensive. Many occupations are likely to disappear quickly while new ones emerge. More than 50 percent of all jobs in Sweden can disappear in 20 years due to digitalization²⁰.”(Industrirådet, 2018)

The report argues that these societal changes will change the basic conditions for placing manufacturing activities in Sweden.

“Competition is increasing in terms of competence and where in the world businesses will be located. At the same time, new opportunities arise for companies that can obtain goods and services such as streamlining care, contributing to smart environmental solutions or can benefit from digitalization for new products, services and business models. This means major export opportunities for companies and countries that can deliver solutions.” (Industrirådet, 2018)

The supply of skilled labour therefore becomes crucial to maintain and develop national competitiveness. The report also stresses the importance of speed, rapid changes and quick adaptation of new skills and competences.

Structural transformation means that skills requirements in working life change rapidly. As increasingly smarter systems take over routine tasks, work moves to more complex and creative tasks. In line with more advanced production and service, the need for workers with more qualified education increases. Over time, the educational background for employees in the industry has shifted towards people with high-quality education and higher education. At the same time, you should not underestimate the learning that is taking place in your daily work. However, formal learning at the workplace requires sufficient prerequisites. (Industrirådet, 2018)

From the point of view of the Industrial Council, higher education is increasingly important, but workplace learning is also important. The report also stresses that investments in education for younger people is not enough. It is also important for workers to be able to go through education at later stages in their working lives, to “constantly develop” knowledge and skills.

²⁰ I may be noted that the report refers to Fölster, (2014), which is a Swedish application of the method used by Frey & Osborne to identify the number of jobs potentially lost by automatization.

The industry's future skills needs are high and it is unlikely that the number of young people coming directly from the education system will be enough. Therefore, industry must also be able to recruit adults. Then it is important to see the education system as a whole from elementary school and upper secondary school to adult/vocational school and vocational colleges and universities. In the education system it is important that there are ways of employment in industry throughout life, both through vocational and academic studies. Knowledge and skills also need to be constantly developed. The starting point for our suggestions is therefore that the entire education system, from elementary school to university, should be characterized by:

- Quality and what it means in the connection between education and working life.
- Relevance created by a stronger link between education and labour markets.
- Flexibility, i.e. that one should always be able to supplementing their education and not ending in educational deadlocks.
- Lifelong learning for all.

Finally, the Industry council presents a vision for the management of skills supply in the longer term:

“Sweden has a flexible, high-quality education system that provides students and workers with skills that make them attractive to businesses. Education providers and companies work together, which leads to a well-functioning matching of the labour market between the educated and the required skills of the companies. A holistic view of the education system enables lifelong learning and career change.”

The report can be seen as a response to the government Smart industry strategy, where the ”Industrial skills boost” is one of four priority areas. The Industry Council believes that the government's ambitions are good and are in line with the needs expressed by the Industry Council. However, much work remains, they claim, in the form of implementation in addition to the initiated pilot projects. Rapidly implementing reforms that strengthen the competitiveness of the manufacturing industry are described as essential for achieving government goals.

The Industrial agreement

As mentioned above, the Manufacturing Sector Agreement, which was settled in 1997 has an important role in the Swedish economy, primarily by setting the benchmark for collective agreements in other sectors. In June 2016 the Manufacturing Sector Agreement was revised, specifying the condition for the collaboration and dialogue for the social partners in the manufacturing industry for the coming years. The Industry agreement sets the rules for the Industrial Council, a collaborative body consisting of representatives of both sides, governing and representing the Industry agreement, for example when responding to government initiatives.

In the new agreement, the ability to manage restructuring is an important condition.

“Businesses and industries are evolving and changing in line with the impact of globalization. Together with the changing demand, rapid technological development, climate threats and political and social changes in our world, there are increasing demands on the development and resilience of companies and employees, employee skills and how these are utilized.”(Manufacturing Sector Agreement, 2016)

The agreement also stipulates that companies play a decisive role in maintaining and developing competitiveness. The fact that companies are properly manned and that employees have the right professional qualifications is described as a strategic issue. This applies to both recruitment and redundancies.

“A particular consequence of structural change is the need for industry to be able to convert both capital and people and physical resources into new or changed business. This includes both meeting the needs of factory closure and redundancies and managing the supply of resources and skills needed to develop new businesses. Restructuring may involve greater or lesser loss of value and it is desirable to minimize these costs for both individuals, companies and society. The social partners in the industry want to see a developed dialogue with the state and society with the aim of improving the ability to convert (restructure) and innovate in Swedish industry.” (Industry agreement, 2016)

In the agreement the social partners also send a message to the government concerning the role it wants the state to take to provide good conditions for the development of the industry.

“Sweden must develop a business environment that attracts businesses to invest and place their businesses here and to develop them in the long term. The parties want to work together to strengthen the competitive advantages Sweden has in terms of, among other things, good conditions for energy production, raw material availability, high level of knowledge and a strong industrial culture. A high level of technology, creative and innovative work environments, investment in research in industry-relevant areas, restructuring capability, well-developed service offering and advanced IT usage, are other examples of key competitiveness.” (Industry agreement, 2016)

6. Discussion and conclusions

This report set out to create a better understanding of the impact of restructuring driven by digitalization on social dialogue in Sweden. Analysing how social partners in Sweden address digitalization in association to Government Public Investigations helps to understand the way digitalization and restructuring is connected in social dialogue, what actors are involved in social dialogue and how digitalization affect the relationship between social partners in different industries.

As the analysis shows, there are striking similarities in the way digitalization is conceptualised across industries. Digitalisation is described as a challenging force that have consequences on almost all societal and industrial areas. It is both described an opportunity, with high potential to take advantage of and as a threat, leading to restructuring, job loss, changing business models, increasing competition and the need for new skills and competencies. However, the transformations taking place as a result of digitalization are also described as something that is a part of structural changes in the economy, not new and that “we” already have experience of and “systems” to deal with.

Another common feature is that digitalisation is used as a way to explain labour market and industry developments. But social partners have different understandings of what these developments are and what the implications for workers and firms are. Trade unions, on the one hand, use digitalization as a way of explaining the emergence of new forms of insecure employment relationships, such self-employment and fixed term contracts (see appendix I). For employers’ organizations, on the other hand, digitalisation provides a rationale for why jobs may need to be shed and why labour law needs to be reformed. They both share the view, however, that digitalization creates new demands on workers in terms of skills and competences and they also

seem to agree upon the need to reform the structure and content of the Swedish education system, to provide the skills and competences necessary to compete in a world of digitalization. This concerns the role of both higher education and secondary education, as well as discussions about new structures for adult education to facilitate career development and continuous or lifelong learning. There are also visions regarding new and innovative ways of distributing and organizing education, for example digitalised learning channels, platforms, etc. It may be argued that these visions are often based on a rather limited and narrow understanding of knowledge and education, assuming an objectified view of knowledge as something that can be stored, distributed and received. This is in line with the view that digitalisation will lead to the establishment of new actors involved in generating and distributing knowledge. It is also unclear what kind of skills are required. Most often the need for specific technical skills are emphasized, for example computer programming and knowledge about and the use of new technologies (e.g. artificial intelligence, robotics, 3D-printing, automatization, etc.). It may be noted that it is often concerned with technologies rarely used or not yet developed. Which means that there is limited systematic knowledge available to distribute. Despite this paradox, the discourse on training and education is placed in the nexus of already established conflicts regarding how training and education should be financed and organized in the Swedish labour market. For trade unions training should be provided by employers and be seen as part of the continuing development at the workplace (see for example the policy statements by the finance sector trade unions). Employers, on the other hand, argue that education should be provided by the state as a form of societal infrastructure and that workers have an individual responsibility for competence development to ensure their employability. Digitalisation, thus, reconfirms and reinforces already established positions between social partners. In other words, despite the novelty, the digitalization discourse becomes an arena for social partners to recall old positions.

Even if digitalization provides a new stage for old performances, there may be new actors involved in social dialogue. It is clear that all the main social partners at central and sectoral level take part in public debates and discussions regarding digitalization. The established forms of social dialogue and industrial relations structure at national, sectorial and company level is still relevant and there are no examples of new forms of actors involved, such as non-union employee representatives or quasi-unions. There are, however, some new and emerging developments in the way digitalization contributes to change social dialogue. As mentioned, tri-partite social dialogue is rare in Sweden. The industrial dialogue, initiated by the social democratic government, may be seen as a new form of social dialogue, emphasizing the importance of developing a common platform for collaboration between the government and social partners in identifying common challenges as well as creating a basis for implementation of government initiatives and policies.²¹ The industrial dialogue, may in this perspective, be seen as rather successful in that it has been continuous over a four-year period, involving a relatively large number of key actors. But there are, so far, no concrete

²¹ This initiative can be seen in light of the previous right-wing government, that tried to develop a tripartite agreement with social partners, but failed, due to the hesitation by trade unions to participate and agreeing upon the government proposals to reduce entry wages in an effort to make it easier for unemployed (primarily young and immigrants) to enter the labour market.

outcomes in terms of implemented policies or legal reforms. The industrial dialogues were concerned with general strategies, intentions and ideas in the form of exchanges of experiences and views rather than direct bargaining concerning specific policies, incentives or regulative frameworks. It may be noted that such dialogues have always taken place, but there have been periods when at least one of the partners have been more reluctant to tri-partite conversations and such conversations “normally” take place in more urgent situations. However, the tri-partite dialogues set up by the government may not necessarily be seen as a direct response to digitalization. Digitalization is rather used as a way to set the policy agenda. Digitalization is used as a mobilizing device. As such, digitalization is useful. It refers to a broader phenomenon, vague enough for everyone to agree that it may have important consequences, both positive and negative. Digitalization is something that everybody can experience and understand and everyone agrees that it may have important consequences for their lives, their business or their work. Digitalization may create opportunities and threats and it is easy to say that something has to be done, to take advantage of the opportunities or avoid the dangers. Addressing digitalization provides government representatives with an air of novelty, innovation and vision, allowing them to address issues of the future, with more or less loose ends and unanswered questions. Digitalization, thus, enable the government to mobilize actors and stakeholders who may not always see themselves as interpellated by government invitations. But the vagueness also provides uncertainty, not only about direct effects in the labour market, but also about policy outcomes. Thus, industrial dialogues may be seen as a trap, from which social partners cannot escape. Even if there are no specific policies implemented, they cannot take the risk of not participating in case debates would lead to the formation of specific policies.

The industrial dialogue may also be seen as a way for the government to intervene in the relationship between social partners. The industrial dialogue, may appear as a neutral platform for dialogue between the government and social partners, but it is also a way for the government to strengthen the trade unions in relation to their counterpart. One example is how the minister of industry and innovation, during the Industrial dialogue, emphasize the importance of a system for short time working schemes. Thus, by referring to societal changes driven by digitalization and globalization, the government are able to intervene in the relationship between social partners.

The already established restructuring policies, facilitating job to job transition, is still the main restructuring measure in Sweden. Social partners, as well as government representatives, agree that digitalisation further emphasises the importance of job to job transition measures, due to the need to be able to facilitate changing composition of the workforce. To the extent that there are calls for amendments or modifications of the existing measures, discussions are rather twisted towards increasing the training component in the framework of existing job transition measures. There are also discussions regarding the introduction and reform of short time working schemes. In this way, the industrial dialogue as well as the Government Public investigations regarding digitalization can be seen as having an anticipatory effect, increasing the awareness among social partners regarding the possible consequences of digitalization. More specifically, the industrial dialogue concerning business cycles and restructuring in May 2018 can be regarded as an example of anticipation of

restructuring. Government representatives and social partners discussed what measures to initiate in order to prepare for future financial crises, emphasizing the need to reform the existing government funded short-time working scheme. However, this may rather be seen as complementary to the already established job transition schemes financed and organized by social partners.

References

- BFUF (2018) Tillväxtbransch i förändring, Prognoser för kompetensbehov inom hotel- och restaurangbranschen till år 2030, Besöksnäringens Forsknings- och utvecklingsfond, Stockholm.
- Finansförbundet, (2016) Kompetensutveckling - för anställningstrygghet på en digital arbetsmarknad.
- Finansförbundet, (2017) Världen förändras – häng på! En rapport om kompetensutveckling inom finansbranschen.
- Fölster, S. (2014) Vartannat jobb automatiseras inom 20 år, utmaningar för Sverige, Stiftelsen för strategisk forskning, Stockholm: Trydells Tryckeri.
- IF Metall (2017) Digital industriell revolution – Med kompetens för framgång, Stockholm: Exacta, Maj 2017.
- ILO (2018) <https://www.ilo.org/ifpdial/areas-of-work/social-dialogue/lang--en/index.htm> (Accessed 2018-12-04)
- Industrirådet (2018) Industrins framtida kompetensförsörjning, Industrirådet, Stockholm.
- Medlingsinstitutet (2018) Avtalsrörelsen och lönebildningen år 2017, Medlingsinstitutets årsrapport, Stockholm.
- OECD (2017). OECD Economic Outlook, Vol. 17(1), OECD Publishing, Paris.
- Oscarsson, E. & Regner, H. (2017) Vagar till ny kunskap, SACO 2017, Stockholm.
- SOU (2016:89) För digitalisering i tiden, Slutbetänkande av Digitaliseringskommissionen, Stockholm: Elanders Sverige AB.
- SOU (2015:91) Digitaliseringens transformerande kraft, Vägval för framtiden, Digitaliseringskommissionen, Stockholm: Elanders Sverige AB.
- SOU (2016:17) Som ett brev på posten. Postbefordran och pristak i ett digitaliserat samhälle, Delbetänkande av 2015 års postlagsutredning, Stockholm: Elanders Sverige AB.
- Svenskt näringsliv (2016) Företagen och digitaliseringen, om samhällsekonomiska effekter, kompetensförsörjning och nya regler för handel och personuppgiftsskydd, Stockholm.
- Visser, J. (2013). *Wage Bargaining Institutions—from crisis to crisis* (No. 488). Directorate General Economic and Financial Affairs (DG ECFIN), European Commission.

<https://www.itot.se/2017/12/digitaliseringen-ar-pa-riktigt-tankesmedjan-digital-utmanings-samlade-slutsatser/>

Appendix I: Social partner responses to the digitalization strategy

Proposals by the Digitalization Commission	LO (the Swedish trade union confederation)	IF Metall	SACO	The Association of Swedish Engineers	The Confederation of Swedish Enterprise	Almega: IT & Telecom Employers
General comments	(LO) has traditionally been favourable towards structural change. The use and adoption of new technology that increases productivity is generally seen as a way to enhance working conditions and wage levels for workers and was one of the corner stones of the Swedish labour movement since the early twentieth century. Technological changes driven by digitalization are in this sense no exception.	IF Metall sees the potential benefits of digitalization to build both a stronger export industry and a more developed welfare society. The state plays an important role in both of these contexts, and the report of the Digitalization Commission is a good basis for further action.			Swedish Enterprise shares the digitalization commission's view that digitalization profoundly changes our society. The Digitalization Commission aims for Sweden to be the best in the world to use the potential of digitalization in order to attract people's innovative capacity and entrepreneurship. With modern simple and easy-to-use legislation, Swedish companies will be able to grow and develop their business in the best possible way.	
Legal reforms: A commission should overview whether the labour law needs to be adapted due to digitalization.	Regarding the suggested review of labour and consumer laws to be adapted to the conditions of digitalization LO agrees but stresses the potential negative consequences of digitalization. According to LO it is important to strengthen and clarify the safety of employees.		The basic attitude of Saco is that it should rest on the social partners to adapt employment and employment conditions to a changing labour market through collective agreements. One problem is the emerging sharing economy makes it difficult to make a clear distinction between employees and self-employed workers. Therefore, it is important to map the needs of labour law adjustments, but also to consider the possibility of creating alternative solutions.	The Association of Swedish Engineers proposes that the government instruct the social partners to investigate the regulatory framework required for Labour legislation not to create unnecessary barriers to new businesses and job models while safeguarding and maintaining the employment and social rights of the individual.	The Swedish Enterprise Division shares the conclusions of the investigation regarding the necessity to review existing consumer law but is doubtful about the need to set up an investigation in order to review whether any part of Labour law needs to be adapted in the light of the use and sharing economy. Swedish Enterprise does not see any need to change the current regulation regarding the employee concept and notes that there is an inquiry to review consumer legislation (Dir.2015: 136) and that its directive explicitly excludes reasoning regarding Labour law.	Government regulations and guidelines should also be reviewed for the same purpose. The government should also prioritize efforts to ensure a digital single market across the EU that enables innovative Swedish companies to grow across the EU and not remain locked in their home market.
Social insurance:	LO agrees that the social insurance system should be		SACO believes that it is urgent with the	The Social Insurance Investigation final	Swedish Enterprise believes that entrepreneurs	Today's social insurance system assumes that

<p>A commission should consider changes in the social insurance system.</p>	<p>revised. They believe that a movement towards increasing temporary and part time jobs risk undermining the current social insurance system.</p>		<p>conversion of security systems into a Labour market. Now it is about making concrete proposals on how to adapt the security systems to a changing Labour market. The rules must be simple and predictable. Self-employed persons and others with more free employment must be eligible for sickness and unemployment insurance and be able to earn a reasonable pension.</p>	<p>report in March 2015 states that the pressure on public systems will increase within ten years. Large populations reach an age where they will need more care, others will retire without the labour force being significantly larger. The Association believe that the government should also involve the social partners in the process of developing a model for a stable social protection system, even with the sharp changes in the labour market that are expected to occur.</p>	<p>should be treated equally in health insurance. It is important that more people dare to take the lead in entrepreneurship. Swedish Enterprise is in favour of a new common income base for compensation in the security systems, which is calculated on the historical income the insured has had and for which the employer pays social security contributions. As well as compensation system based on historical income data requires a reasonable burden of reporting for companies proportional to the profits that historical income may cause. In order for such an assessment to be made, comprehensive and impact assessment proposals are required in an upcoming investigation.</p>	<p>employment contracts are normative and that salaries are fixed and increases over time. IT & Telecom companies recommend the Commission's proposal that the government should review the current form of the social security system in view of new and changed labour market conditions made possible through digitalized social development.</p>
<p>Work environment: the Swedish work environment authority should define the concept of digital work environment and (if necessary) suggest further instructions and define guidelines and general advice regarding how digital work environment should be treated in accordance to existing work environment legislation and working</p>	<p>Instead of defining the concept, LO would rather see that the Swedish work environment authority ensures that principles for good cognitive ergonomics are catered for in the existing regulative framework as regards digital technologies. In their view, processing of data in combination with expert systems puts high demands on the human and system interface.</p>	<p>Sweden has for a long time a strong position in the field of work environment-related research and product development. In connection with digitalization, we need to ensure that it supports the development of good working environments. An area that should be paid attention to is the balance between man and machine, i.e. how people interact with machines/robots in their daily work. In connection with workplaces and the working life of the future, the</p>	<p>Saco has no objections to further defining the concept of digital work environment. But we want to point out that much of the work proposed by the investigation is already initiated with the Government's Work Environment Strategy 2016-2020.</p>	<p>Not having to risk their health at work is a fundamental right. The Association of Swedish Engineers believes that the flexibility and freedom that digitalization of working life has resulted in many cases is of benefit to both employees and employers. However, the requirements of the individual may be overwhelming and lead to problems with stress and overload. The Association of Swedish Engineers support the report's proposal and, in particular,</p>	<p>We share the investigation's view regarding the impact of the physical and psychosocial work environment. However, it should be noted that the government has appointed an investigation "Work Environment Rules for a Modern Working Life" (Dir: 2016: 1) where the investigator, among other things, will identify what trends and new forms of work that are present in Sweden today, and explain the challenges with them.</p>	

time legislation.		issue of employee's right to privacy is also a very important issue, so legislation that protects the individual is required.		emphasize the importance of clear rules that protect the individual in the face of the boundarylessness that the digital working environment can lead to.		
Lifelong learning and education: establish a collaborative council for digital jobs, which should be given the responsibility to develop and further the provision of customized IT-education at the university level.	Regarding the establishment of a collaborative council for digital jobs, suggested by the investigation, LO regards such collaboration between industry and academy as beneficial, but stresses that it is not suitable to customize educational programs in the way suggested by the government report, since they would be seen as a form of contract education and should be treated as such.	Rationalization, technology development and restructuring are part of the everyday reality of IF Metal members. Structural change leads to major social gains. The cost of structural change must, therefore, be carried collectively in a society under rapid development. A basic prerequisite for Swedish digitalization is education at all levels of society. Both depth and breadth are important in the major education project that digitalization must involve. There is also a need for a digitalization plan for existing education in the entire education system. Even in a citizen's perspective, education for all in digitalization is a central task of the education system.	SACO has no objections to the proposal that the government should set up a collaborative council for digital jobs. In addition to representatives of institutions of higher education and industry, relevant unions should also be involved. It is also important that the academic freedom of the university is not affected, and that the programs do not interfere with the normal education programs.	The state could give the schools at the forefront the task to develop high-level assignment programs following input from the cooperation council. The authority for occupational education should also be able to get part of the collaborative council's needs analysis in order to provide support for urgent education.	The report proposes a collaborative council aimed at developing and promoting the provision of customized IT education at university level. It is good. However, Swedish Enterprise wishes to see increased cooperation between employers and education providers at all levels. A better dialogue could help the higher education institutions to receive signals of changes in the Labour market faster than today, leading to more up-to-date training. Increased cooperation can also lead to the development of higher education institutions through inspiration of working methods and technology used in businesses.	Lifelong learning, education, skills development, and retraining are becoming increasingly important for individuals, companies, and society. Education programs should, therefore, be based on the needs of industry and workers in the midst of their careers for activities with high IT content and flexible planning. Against this background, IT & Telecom companies support the Commission's proposal to set up a joint council for digital jobs with the task of developing and promoting the provision of tailor-made IT training. The Cooperation Council should include representatives from the social partners and institutions of higher education.

Appendix II: Social partner responses in the tourism industry

	Hotel- and Restaurant Trade union (HRF)	Unionen	Handels, The commercial Employees' Union, (Handelsanställdas förbund)	Visita: employer organization in the Swedish tourism industry	Svensk handels: Swedish association of retail employers
Competence development and skills	Staff turnover is high and that many leave the industry after a shorter time. The tourism industry has a large share of insecure employment. Staff turnover would decrease and skills promotion would be more effective if a greater proportion of jobs were not characterized by uncertainty.	The Union advocates a competence development model in which trade unions, employers and, in the long run, the government helps more people in their working lives to continually update their skills to overcome labour shortages. Furthermore, The company's willingness to invest in skills development must increase, and investment costs for competence development must be classified as an asset in the balance sheet.	The Federation wants to see a broader governmental collaborative effort on the coordination of skills development. In the development of skills it is extremely important that social partners, who have a direct knowledge of actual skills needs, have a prominent role. The role of social partners should therefore be emphasized. There may be a need for a local adaptation of skills development linked to the individual regions' conditions and development opportunities.	Digitalization affects our wide-ranging industry. We must keep up with and develop the skills of both employees and management, and the need to adapt the digital business systems to tourism industry. In the future, validation will be an important tool for assessing and acknowledging knowledge and experience from both formal and informal learning. Validation facilitates labour mobility and can also shorten education time.	The investigation has focused the competence supply issue on public intervention and chose to discard the expertise of the tourism industry if it had not been possible within the framework of the assignment. Svensk Handel regrets that companies' skills needs and the lack of education are not clarified in this investigation as this is a very important component that impedes growth in the industry.
Education and training			Handels is of the opinion that the investigation should have raised the importance of Relevant Upper Secondary Education to a greater extent. The professions in retail build on skills that can be developed through knowledge and training. The view of the investigation probably leads to the fact that retail (including other tourism industries) has been a transition occupation of lower status. This is not a condition that we accept. We rather work hard and actively to raise the status of the profession. Statistics have shown that only 43% of graduate students find a high degree of coherence between what the education teaches and what businesses in retail require. This demonstrates the need for strengthening and reforming vocational education in the hospitality industry, rather than emphasizing the required competencies as innate skills, not least in the retail sector. The need for relevant education is accentuated by the transformation in	It is essential that the education system enables career paths for existing employees as well as for job changes, new arrivals, and young adults. The doors of the education system must be as open as possible. Education towards the occupations with labour shortage needs to be prioritized, especially important for the adult vocational education. Better education and knowledge development at academic, advanced and research level are important for the industry's future status and attractiveness. There is an increasing need for industry-driven leadership education at the bachelor and master's level in the tourism industry.	Skills: - More than half a million people are employed in the retail sector and about 120,000 people are employed annually. Of these, 19 % of them are employed in the age of 16-24 years. Almost a quarter has an employer from the retail sector as the first employer on his/her CV. Today, there are only about 3 700 places of education linked to retail and trade. Of these, there are approximately 560 in higher education, approximately 490 in the vocational college, approximately 1800 in vocational education including apprenticeship and approximately 2600 in upper secondary education (HA program). In total, approximately 8,200 students are enrolled in the HA program each year. This constitutes approximately 2.5% of all students in upper secondary school.

			which the industry is involved as a consequence of digitalization.		
Labour shortage and turnover	<p>The tourism industry is a growing industry. The provision of labour is probably the biggest obstacle to the development of the industry. In our role as a social partner we can take responsibility but it requires that we have the tools needed to improve the conditions. It is therefore important that the laws governing employment security are not further curtailed. Insecure conditions through, for example, general fixed-term contracts, do not contribute to the industry's long-term stability and development. As well as measures to improve the conditions for employment and safety in the industry.</p>	<p>The investigation reflects upon the relatively high staff turnover and the company's conditions. The investigation is of the opinion that the proposals can indirectly lead to more profitable companies in the hospitality industry and employ more people. However, the Union lacks reasoning and concrete proposals regarding the conditions of employees. Therefore the collective agreement's role in securing decent working conditions and access to training should be integrated into the work.</p>		<p>The biggest challenge facing the tourism industry is to meet the growing needs of skilled staff in the short and long term. We have a major responsibility for the provision of skills and Visita works actively to raise awareness and increase the knowledge of companies. With the strong growth taking place in the tourism industry, we also need to be able to promote skilled employees in the sense that they remain in and develop the industry. But the needs are urgent and comprehensive. Therefore, it is very important that the ministries of labour, education, and industry work together on the basis of increased focus on employers' business needs in terms of long-term skills supply.</p>	
Sharing economy, platform economy and unfair competition	<p>Previously, HRF has pointed out that unserious and unprofitable companies have been able to maintain their activities due to government employment support, which has led to unfair competition and the prevention of a healthy functioning market.</p>	<p>The Union is of the opinion that the chapter "Digitalized Tourism, focusing on the Sharing and Platform economy" clearly describes the potential impact of digitalization on tourism, but it lacks depth. The proposed study can provide answers to how, for example, the Swedish Tax Agency can play a role in simplifying the application of existing regulations.</p> <p>The Union does not support the idea that the legislator should take specific measures to promote certain commercial transactions only because a certain digital platform is used, where the risk of distortion of competition then becomes apparent.</p>	<p>Visita believes it is important to distinguish between the sharing economy and the platform economy. Sharing services are about utilizing resources in an efficient and sustainable manner, which we naturally welcome. The platform economy, on the other hand, is about developed commercial services. The dependency of hotels and restaurants on digital platforms is increasing, and thus the platforms also have an ever-increasing influence on the business's performance. Competitive barriers in the form of so-called Rate Parity clauses mean that companies cannot offer lower prices via their own website than those that apply to booking platforms. Another problem is that booking platforms assess and rank companies based on the platform's revenue from the company, not based on quality or customer</p>		<p>A digitized tourism industry focusing on sharing and platform economy is a matter of great importance to our members, where Svensk Handel agrees with the investigation that Sweden has the prerequisites and should take a more active approach to the opportunities and challenges of the sharing economy. It is extremely important to follow the developments of the platform economy in-depth. A major and important challenge is to ensure that existing business models are not hampered by distortions of competition due to various regulatory requirements. Svensk Handel wishes the government to prioritize the preliminary study proposal that charts the platform and sharing economy and the regulations,</p>

Other issues			<p>preferences. Objectively reviewing and evaluating how the platforms work is something Visita welcomes and sees a great need for.</p>		<p>challenges and opportunities that the platform and sharing economy imply for the tourism industry.</p>
			<p>The federation also wishes to emphasize the importance of measures that aim at making the tourism industry geared towards managing a cashless society within the framework of a comprehensive tourism policy. Sweden is one of the countries most advanced in the development, there may, therefore, be a discrepancy between the foreign tourists' payment habits and the payment options in the hospitality industry. This applies not least to the retail sector. Research has shown that after March 2023, it will no longer be profitable for cash handling shops, which will result in a phasing-out which means that 80% of all stores can be expected to be cashless by 2030. Therefore, we suggest that a government commission should be established to identify what needs to be done to handle this development in the hospitality industry. Such a commission should have representation from relevant authorities and the social partners from the tourism industry.</p>		<p>Svensk Handel also wishes to emphasize the importance of expanding and safeguarding the digital infrastructure. An increased effort by the government to offer good broadband and networking throughout Sweden is often discussed. However, it is paramount that business needs must lay the groundwork as safe and stable digital infrastructure is essential for today's operations. Having access to the network is a prerequisite for being able to run businesses at all. Today's consumers/visitors are always online, prepare their purchases and make their purchase decisions using computers or mobile phones. In addition, about 80% of all payments are made today using technical solutions that all depend on a safe and secure network.</p>