SFC

FASHION TRANSFORMATION

SWEDISH FASHION

AN INDUSTRY OF THE FUTURE

PUBLISHED BY SWEDISH FASHION COUNCIL
SWEDISH TRADE FEDERATION
AND TEKO

The Swedish Fashion Council is an industry organisation which aims to promote the Swedish fashion industry and provide education and innovation to make it competitive, positioning Sweden as a global leader in a new era. Its visionary and creative views, along with a strong community, make the Swedish Fashion Council a decisive player in the transformation of the fashion industry. The Swedish Fashion Council was founded in 1979 and is a wholly-owned subsidiary of the Swedish Trade Federation. The organisation works to initiate and carry on research projects, issue reports on the sector and promote the next generation of talent through the Swedish Fashion Talents incubator programme.

Svensk Handel (The Swedish Trade Federation) is an employers' organisation that deals with trade issues in wholesale and retail trade and e-commerce. We are currently working to improve conditions for more than 9000 traders in Sweden. Our main task is to exert influence and improve conditions for companies engaged in trade in order to help strengthen trade. The Swedish Fashion Council has been owned by the Swedish Trade Federation since 2020 and its goal is contributing to and strengthening the Swedish fashion industry at both national and international levels.

TEKO is the trade and employers' organisation for Swedish textile and fashion companies. TEKO's member companies are located all over the country and operate in technical textiles, ready-made garments, interior design textiles, accessories/shoes and other textile products and services. TEKO provides its member companies assistance in the form of services, advice and information in areas such as labour law, sustainability, labelling and standardisation, research and innovation as well as trade, logistics and training.

Textile & Fashion 2030, Stockholm Fashion District, founded by the Association of Trade Partners Sweden, Nordiska Textilakademin, Region Västra Götaland, Acte and Visit Stockholm collaborated on the report.

The report was written by the Swedish Fashion Council in collaboration with Philip Warkander. The statistics were produced by HUI. Project management by Agnes Åberg, the Swedish Fashion Council.

Introduction

At the beginning of a transformation, the coming changes aren't visible and things look just as they did before. The extent of what is taking place is usually not discernible until further into the process. Right now, the fashion industry is facing a paradigm shift—which includes digital innovations, a growing second hand market, new business models, new consumer values and a more inclusive approach—the scale of which can be difficult to appreciate from our present position, just past the starting point.

The transformation of the fashion industry

The first curve in the figure [FIG. 1] shows how the traditional fashion system, which currently dominates the industry, has reached its peak and has now started on a downward curve. It will be difficult to achieve profitability with the business models that have formed the basis of the industry for a long time since they have not been adapted to the changing market. The fashion and textile companies that have operated in the old system need to review their business models and adapt them in accordance with the transformation of the industry, in order to avoid a downward facing trend.

The second curve [FIG. 2] illustrates how new players with innovative, sustainable business models have begun to emerge. As they become bigger and increase in number, the traditional players also come under greater pressure to "jump" over to the upward curve. To make such a leap, traditional players must implement innovative and sustainable strategies in order to transform their business.

The fashion industry's different paths forward

In order to remain competitive and relevant in the fashion industry of the future, there are two alternative ways forward, as illustrated by the figure [FIG. 2].

The left side of the figure shows an adaptive approach where the aim is to create circular business models such as new smart materials, reuse of existing textiles, rental models and an expansion of the second hand market. The aim of initiatives of this type is to enable the products that are put on the market to circulate as many times as possible and thus remain on the market for as long as possible and finally be recycled. The importance of an extended life-cycle is emphasised by the report entitled "Hållbara konsumenttrender 2021" (Sustainable Consumer Trends 2021), published by Science Park Borås, which states that second hand clothing give rise to 194 percent lower carbon dioxide emissions than newly-produced clothing. Extending a clothing item's life-cycle also has the potential to increase the revenue from the item since it is spread out over the lifetime of the clothing item and is not limited to the purchase itself. The right side of the figure shows a transformational perspective. It is based on a more forward-looking approach that redefines the role of fashion. In the future, fashion will no longer be regarded simply as clothing but its role in the expression of identity will become even more important. Digital fashion is one clear example of this. Fashion is already digitised today, particularly in the gaming industry, which brings new services and business and ownership models. Digital fashion offers new, wider availability of clothing which can generate new revenue streams for the fashion industry. The advantage of digital clothing items is that they don't entail any production or transportation, in comparison with physical clothing items in which the production phase currently accounts for 80 per cent of the industry's climate impact.

Based on the figures above, it is clear that the fashion industry is in a stage of transformation. The consumption that drives the industry will not disappear, but we will see an increased diversification of consumption channels and a redefinition of the concept of ownership. For example, the consumer will be offered the opportunity to purchase newly-produced or second hand clothing either physically or via e-commerce, or completely digital garments. It will also be possible to rent clothes for specific occasions or exchange clothes using the various exchange services that are emerging.

The report series "Fashion Transformation" aims to explore and discuss the transformation facing the fashion industry. Emphasis will be placed on the second hand market, digital fashion, the fourth industrial revolution and social sustainability. The crucial role of the political authorities in the transformation of the fashion industry will also be highlighted and discussed. This series includes both quantitative and qualitative aspects. The purpose of the quantitative aspect is to measure and present the transformation of the industry in a purely factual manner. The qualitative aspect focuses on carefully selected areas of the various aspects of the transformation in order to provide a more detailed understanding of the change that is to come and has already begun.

The Swedish Fashion Council is an industry organisation with the aim to promote the Swedish fashion industry and provide education and innovation to make it competitive positioning Sweden as a global leader in a new era. This report series and the transformational work carried out by the Swedish Fashion Council is based on Agenda 2030 and the global goals. The goals aim to ensure a sustainable future and all societal stakeholders will be required to collaborate in order to achieve compliance and the greatest possible effect. This report series is particularly focused on SDG 5 Gender Equality, SDG 8 Decent Work and Economic Growth, SDG 9 Sustainable Industry, Innovation and Infrastructure, SDG 10 Reduced Inequalities, SDG 12 Responsible Consumption and Production and SDG 17 Partnerships for the Goals.

Fashion: an industry of the future

A sustainable, digital, innovative, diversified and competitive future awaits on the other side of the transformation of the fashion industry. The Swedish fashion industry:

Total sales—ca. SEK 148 billion
Exports—ca. SEK 32 billion
Number of employees—ca. 42 000
Number of companies—ca. 13 000
Second hand market value—ca. SEK 3 billion
E-commerce trading—31 % took place online

All figures show the situation in 2020, except for e-commerce, which shows the situation in 2021. This is due to data availability.

Figure 1
Transformation

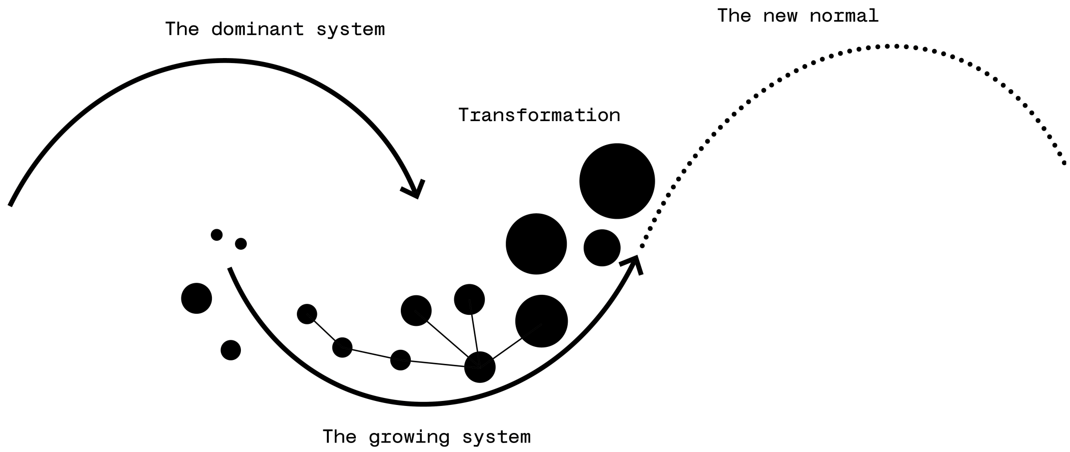
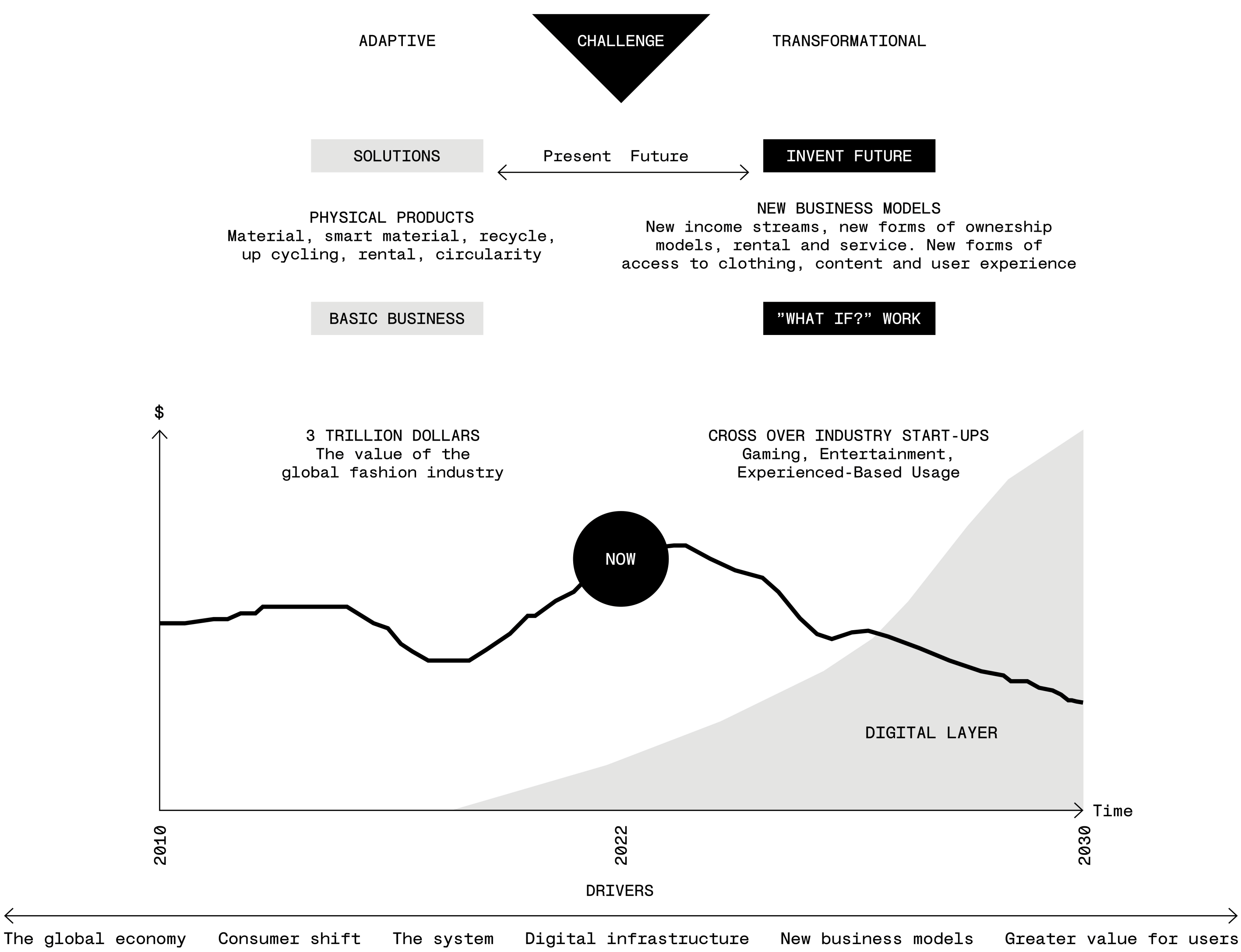


Figure 2
Possibilities: Shift from number of sold units to potential income streams
Market potential for the transformation of the global fashion industry



Fashion Transformation: an overview

The economy of fashion

The market has been greatly affected by the pandemic and other geopolitical factors in Europe and around the world have also contributed to continued instability. Inflation and higher interest costs lead to fewer fashion purchases in the short term, which means that the fashion industry will experience a turbulent period. That development is taking place in parallel with the growth in e-commerce and a shift in values in which more and more consumers demand goods and services that are sustainable.

The second hand market

The shift in values is interesting in relation to the development of the second hand market which greatly helps extend the lifespan of clothes. The industry's major sustainability challenge can be partly solved by strategic development of the second hand market. The lifespan of clothing is currently only half of what it was just twenty years ago. With new business models, a new attitude towards used clothing, political decisions to lower VAT and digital solutions that enable and simplify contact between sellers and buyers—the second hand market can revolutionise how we buy, sell and relate to clothes, both as pieces of clothing and as textile resources.

Digital fashion

Greater digitalisation represents an interesting opportunity for the fashion industry that has been successful in introducing fashion on the digital platforms that, thanks to the pandemic, quickly grew increasingly popular. Digital fashion allows for clothes to be created without using textile materials, which enables people to express their personality through fashion, but in a way that is more environmentally friendly. This development is also in line with the increasing trend of consumers demanding experiences and no longer settling for mere physical possessions.

Fashion's technological revolution

Digitalisation is also part of the fourth industrial revolution, where high-tech solutions can simplify fashion production in several aspects and make the shopping experience smoother. A more agile and efficient production can also help achieve greater sustainability in the long run. Several of the ongoing changes are therefore linked and contribute to a more dynamic and sustainable fashion industry.

Diversity in the fashion industry

The diversity issue in the fashion industry is crucial from a business strategy point of view. The more perspectives you have in rooms where decisions are made, the more alternative answers you have. This provides what is referred to as a "high perspective density" which has been confirmed to result in greater creativity, greater innovation, greater profitability and a greater customer understanding. Since the fashion industry is an industry in the middle of a transformation that involves great opportunities but also extensive challenges, this is an issue that no one can afford to overlook. The industry must actively prioritise a greater "perspective density" at all levels of the company in order to access and utilise as much expertise available in the market as possible.

Transformation of the fashion industry: political initiatives

With a strong creative sector, a strong focus on innovation and close proximity to decision-makers, Sweden is in a unique position to take on the leading role in the transformation currently reshaping the industry. Through an open dialogue and collaboration between the industry and political stakeholders, we can enable Swedish fashion to establish itself as globally leading in the future of the industry focused on sustainability, digitisation and innovation. However, in order to succeed, there needs to be well-structured, continuous collaboration with political authorities. The following initiatives should be prioritised:

- Extensive investments in research and innovation in order to simplify sorting of textiles, develop circular business models and otherwise increase the rate of innovation in the industry.
- Tax relief in the form of Textil-ROT and lowered VAT on second hand clothes to stimulate the second hand market and circular streams.
- Establishing Sweden as a front runner by developing a product passport that sets the parameters for the work at EU level
- Creation of a continuous, structured collaboration between the industry and political authorities through the establishment of a contact person for fashion and textile issues in the government. This would contribute to a more efficient and more impactful work to transform the industry and position Sweden as a global leader in the future of the industry. Through an open dialogue and continuous collaboration between the industry and political stakeholders, we can work together to enable Swedish fashion to establish itself as globally leading in the sustainable, digital and innovative future of the industry. Such a position would not only serve to promote the export dependent fashion industry, it would also strengthen Sweden's image as a front runner within sustainable innovation, entrepreneurship and creativity.

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Background

The Swedish fashion industry from a historical perspective

The modern fashion system was established in Sweden in the years following World War II. The three fundamental factors underlying its development consisted of the outsourcing of labour-intensive clothing production abroad, the fact that the market came to be dominated by a few large companies and the decrease of the monetary value of clothing. These three trends also correlated with three different time periods. Between 1945 and 1960, Sweden was basically self-sufficient when it came to fashion and production of clothing. From 1960 to the early 1980s, the fashion industry underwent a radical shift in culture and attitudes. Fast, low-price fashion continued to expand, but at the same time smaller niche companies were formed as a reaction to this and those companies opposed what they saw as commercialisation of fashion. From the 1980s onwards, a new type of fashion company emerged, which profiled itself through design and well-developed brand identities, but without the ability to manufacture in its own factories. This development laid the foundation for what we now call "Fast Fashion". During this period, these companies focused primarily on design and branding strategies, while actual clothing production continued to be outsourced to foreign factories.

The transformation of fashion

One important framework for understanding the transformation of today's fashion consists of the four industrial revolutions, the first of which began in the late 1700s in the UK through the mechanisation of the textile industry. The second industrial revolution began around 100 years later and was characterised by the introduction and use of electricity. The third industrial revolution is usually dated to the early 1970s and refers to the introduction of automated systems on a broad front. The fourth industrial revolution is characterised by developments such as artificial intelligence, robotics, quantum computers and the Internet of Things, which together have increasingly blurred the boundary between the physical and the digital worlds. Together, these four revolutions form the framework for today's transformation of fashion, both as a culture and as an industry. Fashion is defined by its forward movement and changeability. Since the modern fashion industry was first established in the late 1200s—through the development and organisation of various forms of crafts necessary for the creation of fashion—it has undergone several large-scale, radical transformations. Often these changes have occurred in conjunction with technological innovations, though important cultural and social events have also driven fashion forward. The last time such a paradigm shift took place at international level was in the mid-1900s, when the French, bourgeois haute couture-driven fashion system was replaced by subcultural, youth-driven London-based fashion. The trigger was the revolutionary geopolitical consequences of the Second World War, combined with the emergence of a completely new type of youth culture shaped by the backlash against adult respectability.

Other examples of major shifts in fashion include the development of mass-produced clothing on a large scale, which sewed the first seeds of the democratisation for fashion, the fall of the aristocracy at the time of the French Revolution and the introduction of the internet and, later, of social media. In all cases, it is clear that an interaction between new technology and social movements has led to new patterns of consumption, business models and, by extension, also completely new expressions of fashion. At the same time, craftsmanship has remained at the core of fashion, whether the product is a hand-sewn dress, a coat made from deadstock fabrics or a 3D-printed sneaker. The fashion industry has also had an adverse effect on the environment for a long time. In particular, biodiversity has been severely threatened, which has led to demands for the development of new technological innovations and a circular fashion system with the potential to make the fashion industry more sustainable.

Three of the major driving forces in the current transformation are described below. There were almost 1.48 billion gamers in Asia in 2021. With its 715 million gamers, Europe was the world's second largest market. The Swedish gaming industry is one of the most successful in the world and it is estimated that about one in four people in the world has played a Swedish-designed game. The Swedish gaming industry grew 25-fold between 2010 and 2020, from EUR 130 billion to EUR 3,3120 billion. Since then, the industry has continued to grow, making gaming not only one of the most popular lifestyles and significant cultural expressions of our time, but also making it an interesting partner for the fashion industry. From a broader perspective, interest in gaming can be seen as part of the larger trend whereby the consumer would rather spend money on experiences, digital as well as physical, than on products.

The view of second hand clothing has changed radically in a short time. The development is largely driven by the constantly growing climate crisis and a resulting change in consumer behaviour. Used clothing is increasingly seen as a resource, both from an economic and an environmental point of view. The second hand market, which consists of both clothing and fibres, is expected to grow rapidly in the coming years and to become a separate subsystem in the industry in the long run. The development of new technology, including the use of RFID tags and spectroscopic sorting technology, is particularly important for scaling up the sorting system and making it more efficient. The new Directives for EU Member States regarding collection of textile waste from 2025 also have an impact on development, which is thus driven by both new technology and political decisions at supranational level.

The "Black Lives Matter" social movement was formed in 2013 in the USA and, just a few months later, the models Naomi Campbell, Bethann Hardison and Iman created the "Diversity Coalition" as a development of their previous group, the "Black Girls Coalition" (1988). They demanded change in the industry and significantly greater diversity when it came to allowing different types of experiences, voices and perspectives to those that were usually heard and seen, particularly when it came to the presence of POCs (People of Colour). A lot has happened since then, but the goal—to create a more inclusive fashion industry—remains the same.

Overall, the transformation is driven by a combination of technological innovations, new consumer behaviour, more inclusive values and political decisions. The result will be a new form of fashion, characterised by new business models, perspectives and ways of conceiving the role of fashion in the consumer's life.

THE ECONOMY OF FASHION

Takeaways

To summarise there are currently a few trends shaping the market, some of which will be described in more detail in the following chapters. These consist of the widespread concern of the global economic situation, the spread of the pandemic and subsequent lockdowns and the Russian invasion of Ukraine and Russia's subsequent economic isolation, which also affects other markets. This development is likely to have detrimental effects on the finances of many Swedish households.

At the same time, greater digitalisation is in progress. Consumption, socialising and entertainment are all aspects of daily life that are taking place online to a greater extent. This poses challenges but also leads to great opportunities for the fashion industry, particularly when it comes to reaching new markets and developing new business models. This development is taking place at the same time as a change in values where more and more consumers demand goods and services that are environmentally friendly. It is a complex situation, which will give rise to difficulties in the short-term but which points to a radical transformation not just of fashion as an industry but also of fashion as a cultural and social phenomenon.

The Swedish fashion industry: an overview

"We're going to see a poorer consumer, a more digital consumer, fewer physical stores, a more sustainability-driven consumer."

Jacob Wall,
Executive Vice President Business
Development, Axel Johnson AB

Events in the fashion industry are directly related to events in other sectors, industries and areas. After a two-year pandemic, followed by war in Sweden's immediate surroundings in combination with continued high inflation, it is clear that the individual consumer's personal finances, and by extension his or her willingness to spend money on clothing, footwear and accessories, will be adversely affected in the near future.

"If we go back to the last major crisis in Sweden in the 1990s, it started with Saddam Hussein invading Kuwait in August 1990, which caused the price of oil to double overnight. That tipped over the Swedish economy, which was fairly bloated and vulnerable at that time. Now we have a scenario that is not completely dissimilar, with a sluggish economy with inflated assets and heavily mortgaged households. At that time, as was the case in many other macro shocks, it was possible to save households and the economy by means of interest rate cuts, but that tool is not available this time. That is the big difference in the situation we're experiencing now. I am completely aware of how Swedish households will be affected by this. There's only one direction—and unfortunately that's down."

Jacob Wall,
Executive Vice President Business
Development, Axel Johnson AB

Total net sales for the fashion trade amounted to SEK 148.3 billion in 2020, [FIG. 3] which represents a decrease compared with 2019. Retail trade and e-commerce fell by 10 per cent, wholesale trade fell by 11 per cent and manufacturing fell by 18 per cent, which represents an overall decrease of 11 per cent.

The number of employees in retail trade and e-commerce also fell by 14 per cent during the same period, [FIG. 4] with a 6 per cent fall in wholesale trade and a 10 per cent fall in manufacturing. In total, it is a question of an 11 per cent fall in the number of employees in the fashion industry. That is likely to be partly a consequence of the Covid-19 pandemic and self-isolation in particular, with the lack of opportunities for social interaction that led to a reduction in consumption of clothes which hit the industry extremely hard. On the other hand, a considerable increase in clothing purchases was noted in the last months of 2021, when the pandemic was no longer spreading as rapidly. [FIG. 5]

The unemployment rate in Sweden stood at around 3 to 4 per cent in the 1970s and 80s. Unemployment rose to between 7 and 9 per cent when the major financial crisis of the early 90s began. Despite the fact that over 30 years have passed, unemployment, with a few individual exceptions, has remained at this high level, which has affected both society and the welfare system. As far as the general labour market is concerned, the fashion industry has fulfilled an important role as a gateway to working life. The fashion industry has a larger proportion of younger employees than the labour market in general. 18 per cent of people working in the fashion industry are in the 16–24 age group, [FIG. 6] compared with 9 per cent for the economy as a whole. The figure for the 25–34 age group is 33 per cent, compared to 23 per cent. Three out of every four people working in fashion are female.

In parallel with the growth in unemployment, both the Swedish population and the global population has grown older. In purely demographic terms, the over-65 age group is growing four times as fast as the other age groups. At the same time, Swedish households' indebtedness has increased by over 50 per cent in the past 5 years, facilitated by historically low interest rates. Now that we are faced with a situation in which interest rates are rising, this will directly affect a large part of the population and also, by extension, the fashion industry. In many ways, 2022 will therefore be a tipping point in the development of the industry. The number of high-income earners has increased in parallel with this. It is too early to say what specific effects this will have on the fashion industry, but it is clear that Swedish society is experiencing economic polarisation, which is also noticeable in households' differing ability to spend.

"This scenario that we are facing, with higher inflation which in turn drives interest rates, means that the scope for consumption will be reduced. This year will be the first time in just over ten years that inflation is actually higher than our wage increases, so that purchasing power is eroded."

Jacob Wall,
Executive Vice President Business
Development, Axel Johnson AB

The deteriorating economic situation may delay the transformation to more sustainable fashion. Generally speaking, customers often express a great willingness to shop more sustainably, but studies show that if the more sustainable option costs too much in comparison with the non-sustainable option, the consumer will choose the most affordable. However, the fact that price is becoming an increasingly decisive factor could drive another type of sustainable consumption—the second hand trade, which is usually characterised by lower prices.

"Studies I've looked at show that if a sustainable or locally grown product is around 7 per cent more expensive than the alternative, consumers will choose the cheaper and less sustainable alternative. In other words, there is a great deal of sensitivity at the consumption stage."

Jacob Wall,
Executive Vice President Business
Development, Axel Johnson AB

This becomes particularly important at times of economic concern. At the same time, this short-term situation must be seen in the light of a longer-term development, in which the companies that fail to transform themselves and make their business models and products more sustainable will become less relevant and will therefore also lose their market position.

"I personally think that the whole trend of fast fashion and buying clothes all the time is broken. We're going to buy fewer products and maybe we'll also be more careful about what we buy."

Jacob Wall,
Executive Vice President Business
Development, Axel Johnson AB

Economics is only one aspect of the development. The other is about how purchasing behaviour reflects a new view of fashion and the role of fashion in everyday life. Fashion is a two-fold phenomenon. It expresses both individuality and membership of a group, which is what gives fashion its powerful cultural and social position. However, in a period that is characterised by criticism of consumption, a more aware form of consumption will eventually emerge, which will affect the fashion industry's business models in the long run and mean that the fashion industry, if it is to be relevant, will have to offer more in the way of experiences rather than just physical products.

Figure 3
Net sales in the fashion industry per sub-sector

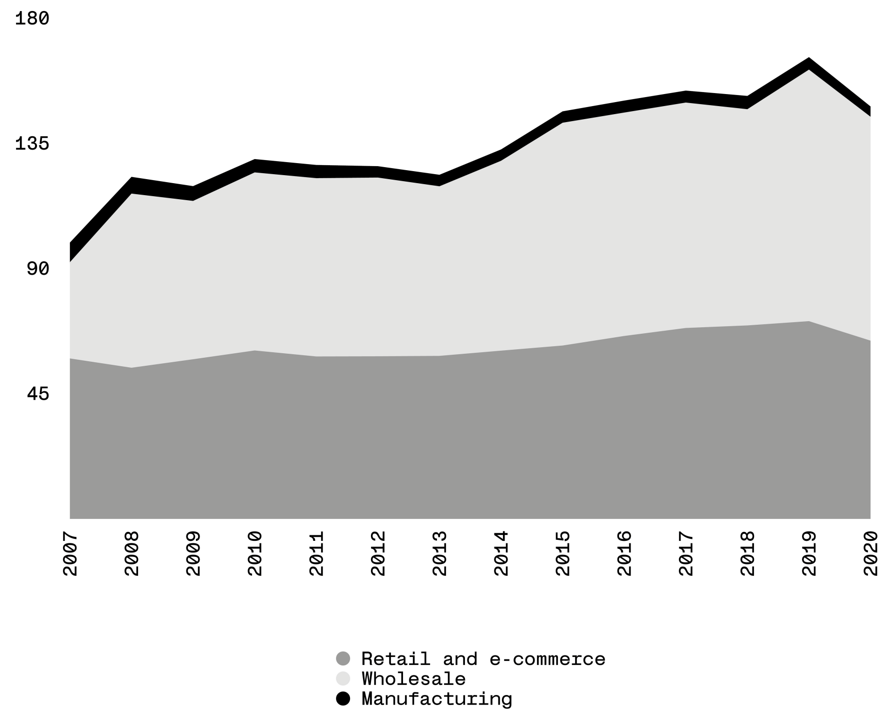


Figure 4
Number of employees in the fashion industry per sub-sector

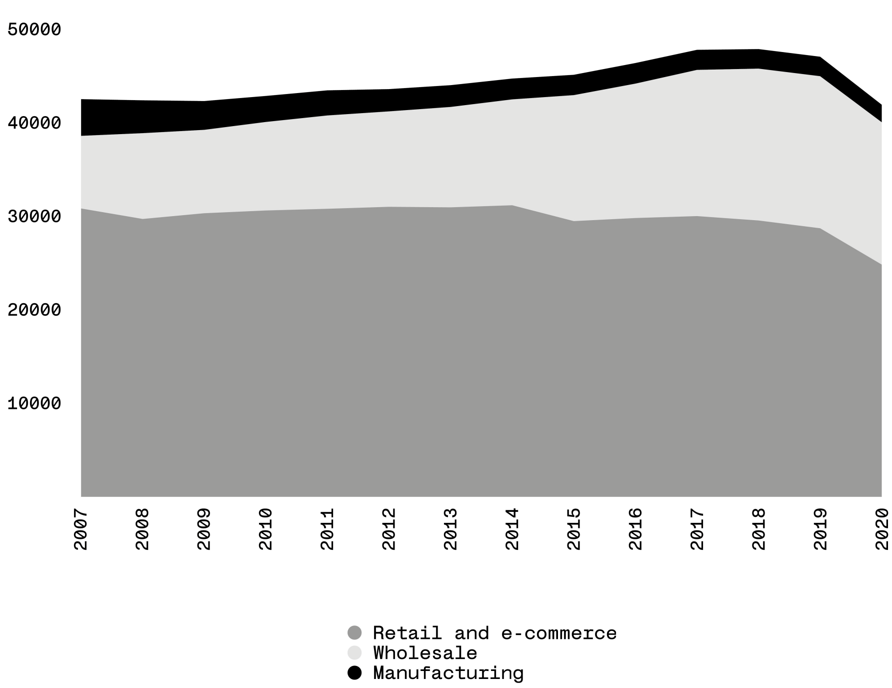


Figure 5
Progress of sales in different sectors

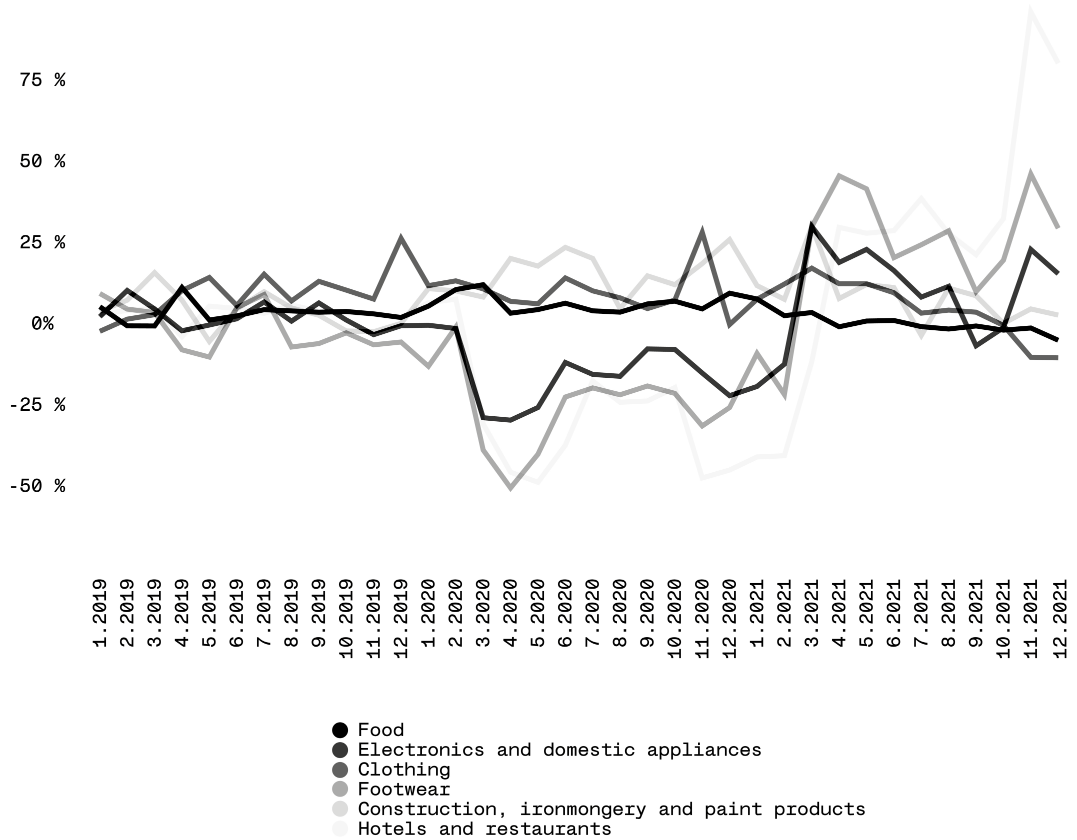


Figure 6
Number of people employed according to age

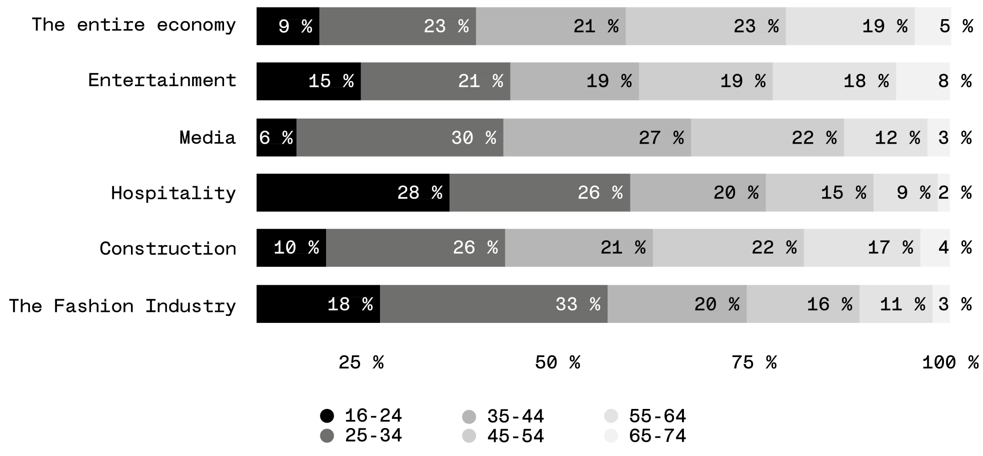


Figure 7
Number of people employed according to gender

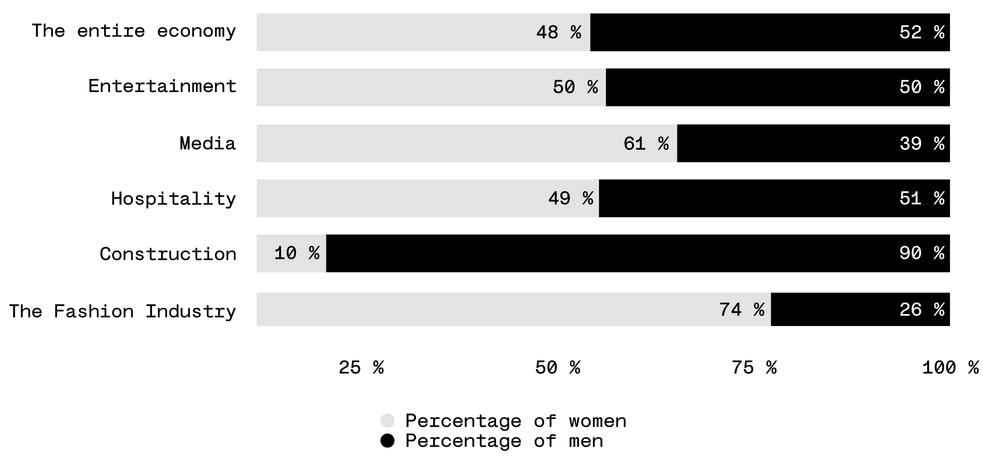


Figure 8
Number of people employed according to origin

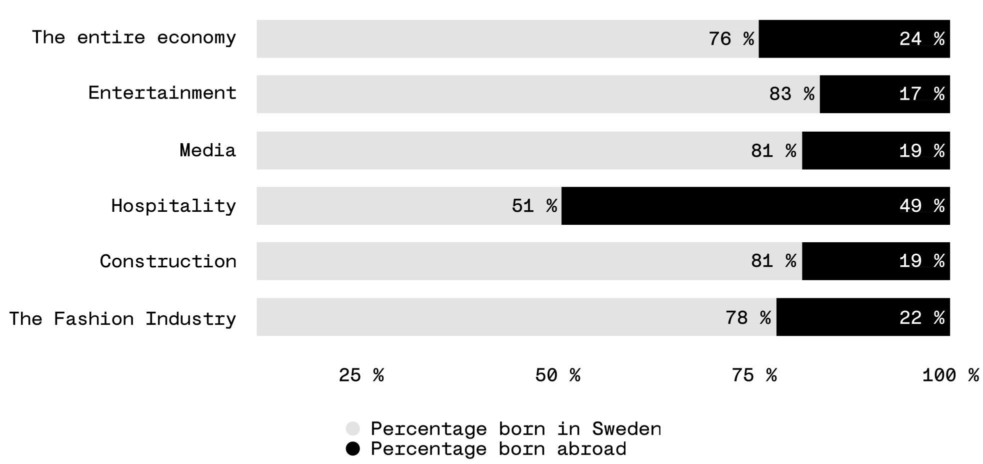


Figure 9
The Fashion Industry's
contribution to GDP

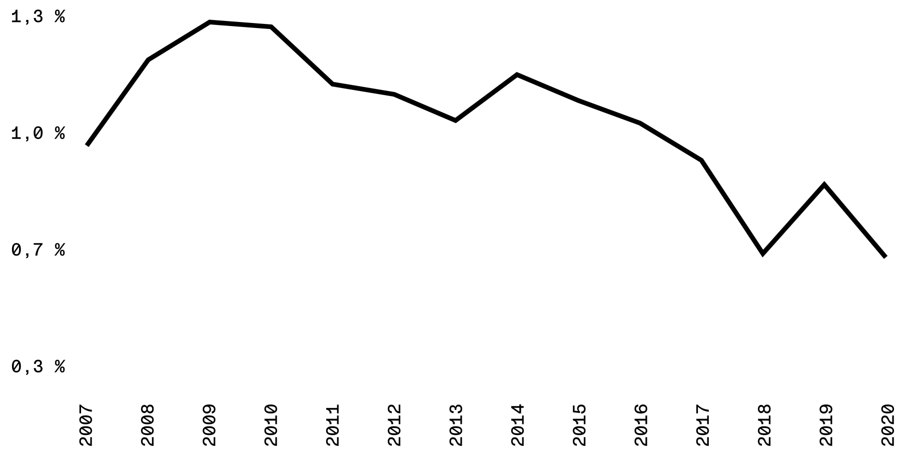


Figure 10
Number of companies started up and closed
down in the fashion industry per year

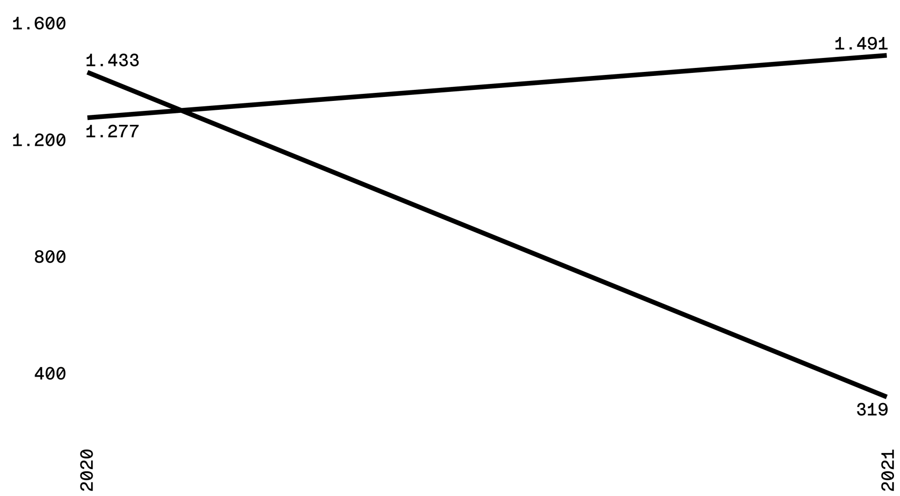


Figure 11

Change in the number of companies started up and closed down, 2020–2021

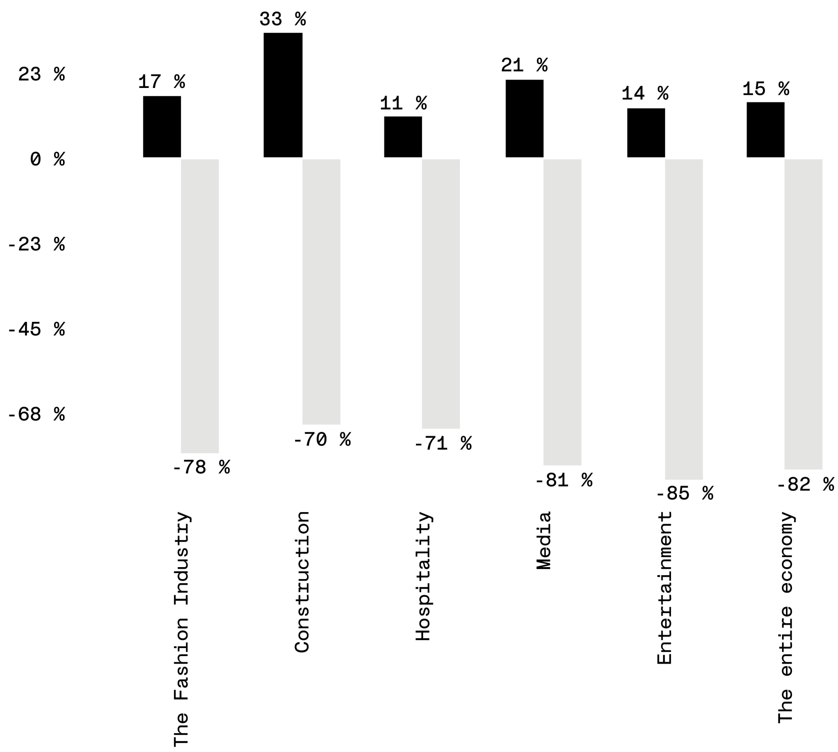


Figure 12

Companies started up in the fashion industry per sub-sector

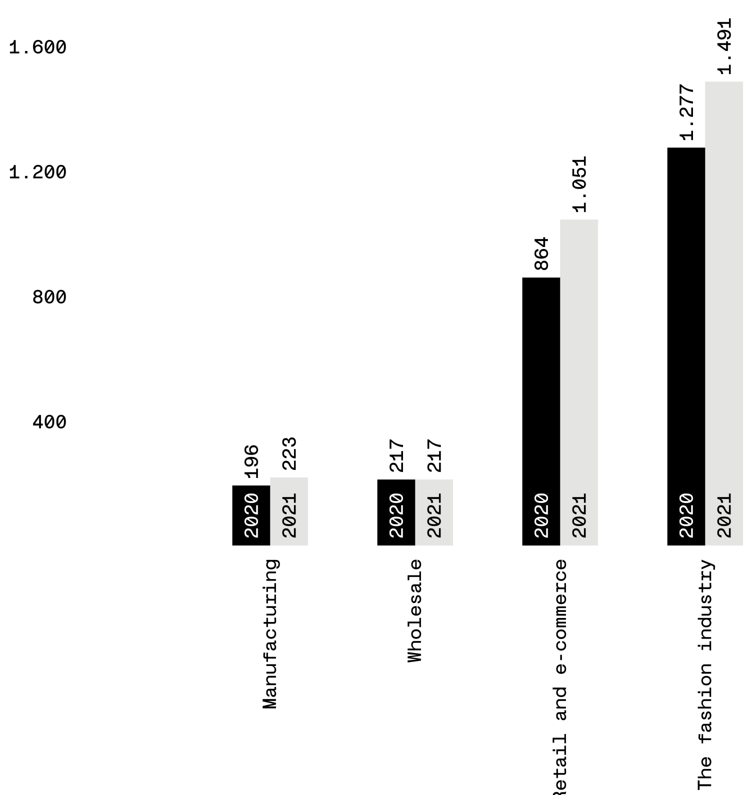


Figure 13
Number of companies in the fashion industry per sub-sector

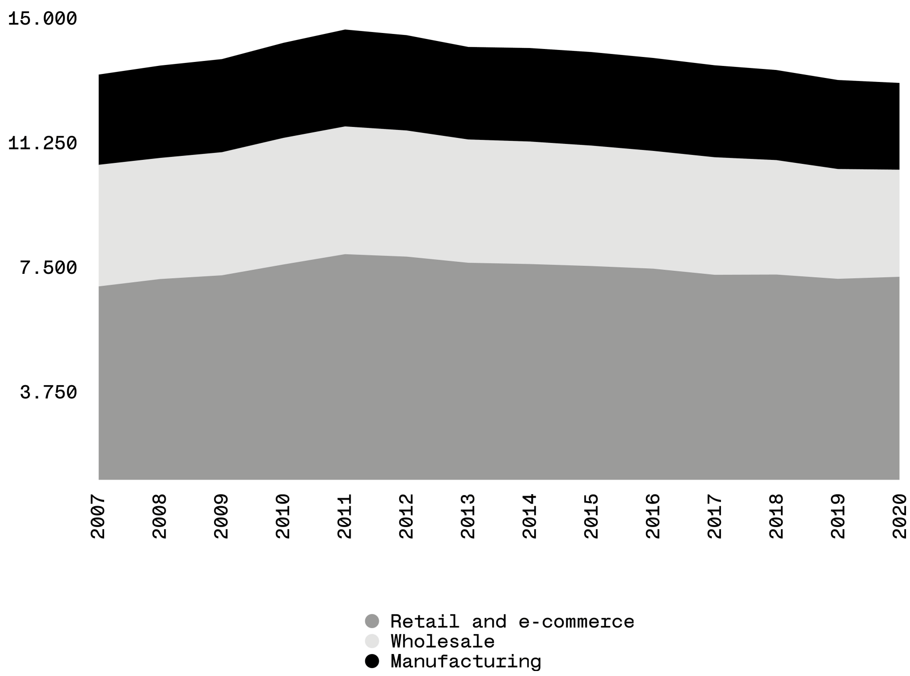
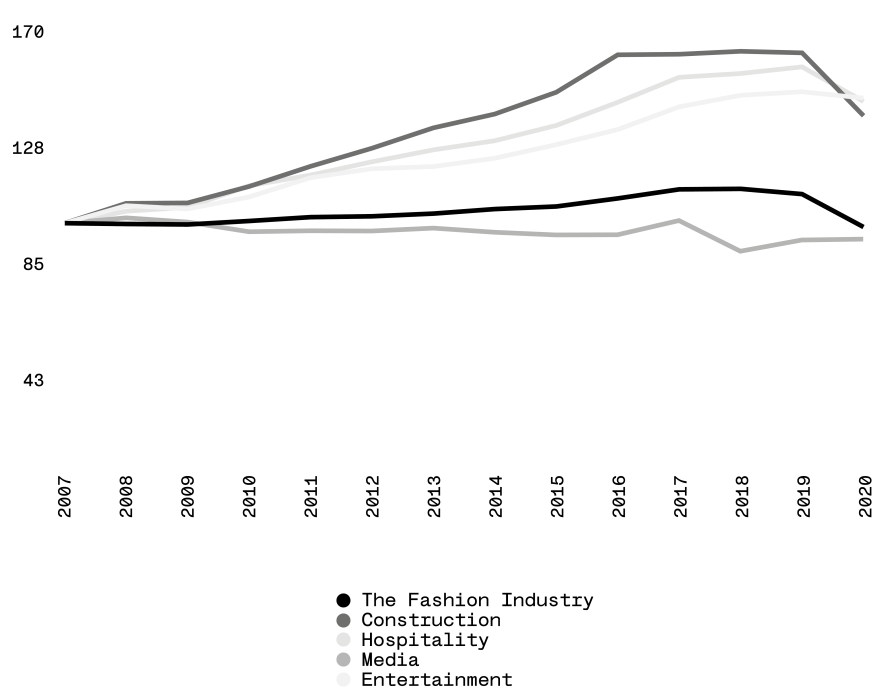


Figure 14
Number of employees in different industries'



The pandemic hit the fashion industry hard

The first effects of the shift facing the fashion industry are being felt in the summer of 2022, after two years of the pandemic. According to the McKinsey report entitled "The State of Fashion 2022", the global fashion industry's turnover fell sharply during the two years that the pandemic lasted. The Swedish fashion industry's contribution to GDP fell from 0.9 per cent in 2019 to 0.6 per cent in 2020. [FIG. 9] That contribution was at its highest in 2009, when it stood at 1.3 per cent. The value added in the fashion industry in 2020 amounted to SEK 27,790 billion, compared with the total for the entire economy amounting to SEK 4,421,115 billion. However, this decrease must be seen in the light of the fast pace that the fashion industry had maintained for a long time prior to the pandemic, which had led to overproduction of clothes, a saturated market and lower economic value for clothes.

The pandemic also had an adverse effect on the number of companies active in the fashion sector: there were 1,277 start-up companies in fashion in 2020, as opposed to 1,433 companies closing down. [FIG. 10, 11] In 2021, the effects of the pandemic had clearly been mitigated, with 1,491 new companies being established, as opposed to 319 closing down. 70 per cent of start-ups in 2021 were in the retail and e-commerce sectors, whereas 15 per cent were in wholesale trade and 15 per cent in manufacturing. [FIG. 12, 13]

Making the fashion industry more efficient

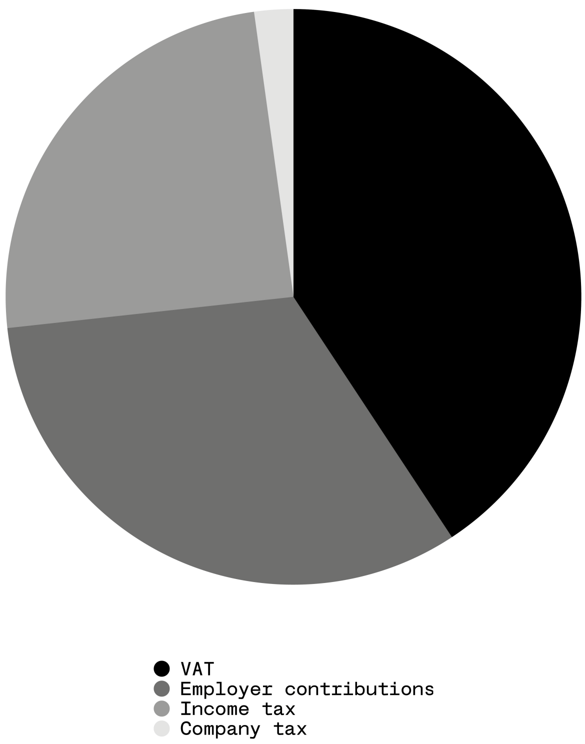
From a longer-term perspective, it is clear that there is a consolidation in progress in the fashion industry. The number of companies is falling, whereas the industry's total sales are rising. This development may be summarised as follows: there are fewer companies, but the companies remaining are larger and more lucrative. There was a total of 13,060 companies in the fashion industry in 2020. There were 7,224 companies in retail and e-commerce in 2020, with 3,225 in wholesale trade and 2,611 in manufacturing. [FIG. 13] The number of employees is also falling. [FIG. 4] There were 41,943 employees [FIG. 14] in the fashion industry in 2020, which was 11 per cent lower than in the previous year.

The fashion industry's tax contribution

In 2020, the fashion industry's tax contribution [FIG. 15] was approximately SEK 17.1 billion (corresponding to an average salary for approximately 36,400 assistant nurses or 29,400 police officers). The largest tax revenue, at 41 per cent, consists of VAT, followed by employer contributions (33 per cent), income tax (25 per cent) and corporation tax (2 per cent). Swedish fashion's economic success is a clear indicator that consumers have reacted positively to the strategic decisions made by the industry. At the same time, one key question is how the industry will relate to the social, cultural and economic changes that characterise the times in which we are living.

Figure 15

The tax contribution of the fashion industry per tax



E-commerce

One significant aspect of the development of the Swedish fashion industry is the decrease in physical commerce in favour of an increase in e-commerce. The pandemic meant a long period of self-isolation, with people spending as much time as possible in their own homes without any contact with anyone outside their own households. One consequence of this was an acceleration in the development of digital services, particularly in retail. However, the return to work and social contact meant that e-commerce decreased again.

"If we go back two years, to when the pandemic hit Sweden with full force when people came home from the winter sports holiday in week nine. Before that, we had seen an annual growth in e-commerce of around 15 per cent in Sweden. The digital shift gained ground during that period—the winter-spring of 2020. We normally say that it progressed about three years in three weeks, and that applies to all categories."

Jacob Wall,
Executive Vice President Business
Development, Axel Johnson AB

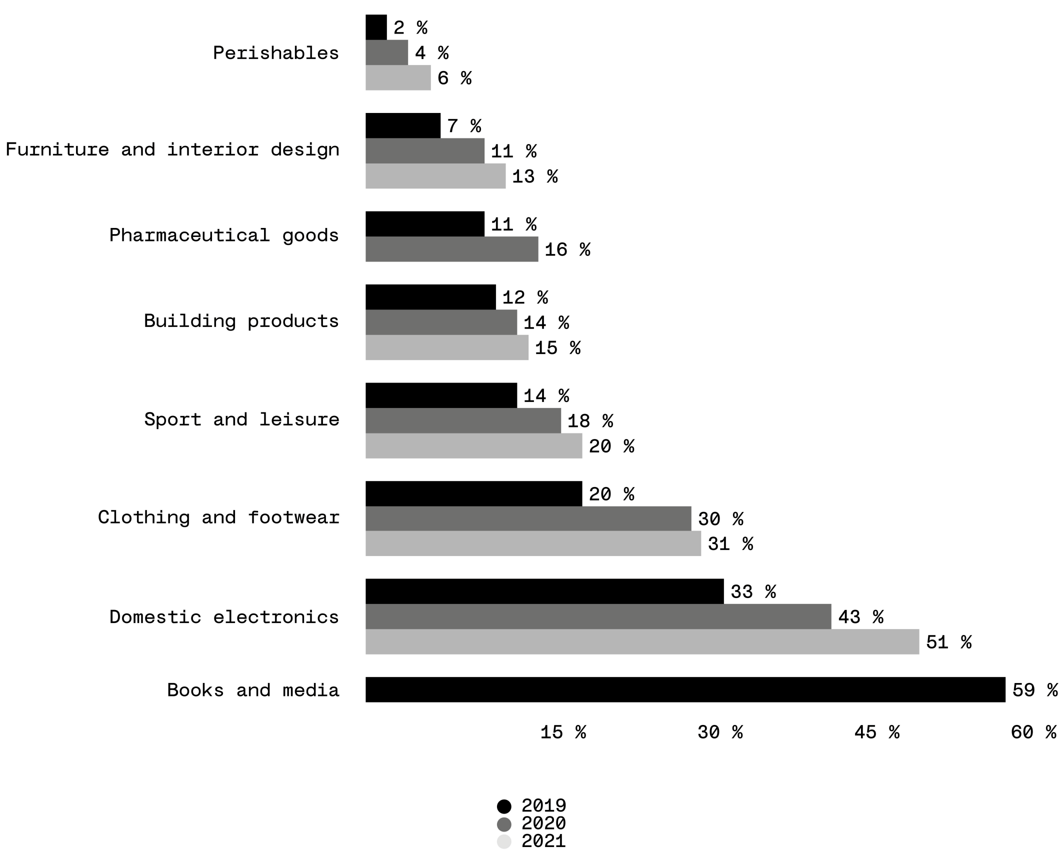
Technological developments and behavioural changes do not occur at a steady pace, but develop suddenly and irregularly. Dramatic events that reshape world history give rise to consequences in terms of rapid shifts in attitudes, mindsets and habits. The pandemic was a factor that could not have been predicted but that clearly accelerated the digitalisation of the fashion industry. In 2021, 31 per cent of clothing and footwear shopping took place online, which represented an 11 per cent increase compared with 2019. [FIG.16] The fact that garment or pair of shoes in five was bought online even before the pandemic shows that the behavioural change had already begun.

"As I observed in late autumn last year and at the beginning of this year, people were being vaccinated and started to go back to the shops and that meant that e-commerce took a back seat. E-commerce in Sweden grew by around 5 per cent last year, compared with the previous 15 per cent annually. It grew by about 40 per cent in 2020. So it was like a channel had been switched back. But I think it'll probably go straight back to the historical trend of something like 10 and 17 per cent growth."

Jacob Wall,
Executive Vice President Business
Development, Axel Johnson AB

The fact that e-commerce has been forced to take a step backwards is also highlighted in the Postnord E-barometer Q1 2022. The report notes that Swedish e-commerce fell by 8 per cent in the first quarter of 2022. However, the main reason put forward for this is the considerable growth experienced by the industry in the last two years of the pandemic. However, the clothing and footwear sub-sector is reported to have done relatively well in terms of the overall trend, growing by 3 per cent in the first quarter of the year. A return to social interaction is put forward as a partial explanation for this. Despite the fact that e-commerce is decreasing, according to the report it nevertheless remains strong and has almost doubled in terms of total sales since 2018.

Figure 16
Percentages of e-commerce in different sectors



The E-barometer also notes that the fashion industry is one of the most popular sub-sectors in e-commerce. [FIG. 17] The growth in e-commerce has had significant consequences for the domestic market, particularly due to greater accessibility for the consumer. It is interesting to note, however, that the growth in e-commerce also opens up the sector to tougher competition from international operators as it becomes easier to shop across borders. This is a development that has hit the fashion industry particularly hard. [FIG. 18] Regardless of the pandemic, e-commerce is experiencing growth linked to the development of new technologies and also due to an improvement at company level when it comes to logistics and presentation of goods. The way companies act in the digital sphere is factor to whether they will remain relevant in the market.

"If you as a brand want to really play and grow and be relevant you need to be able to do a lot of things nowadays. You need to be a social media expert, you need to work on different channels, you need to be international, you need to be sustainable, you need to be digital."

Achim Berg, Global Leader,
McKinsey's Apparel,
Fashion and Luxury Group

As Achim Berg points out, in order to reach the digital customer, it is not enough to invest in efficient e-commerce. That initiative must be followed up with a presence in various types of digital channels, particularly social media. The fact that the focus is on a digital presence rather than physical stores brings up the question of the geographical boundaries of the market. A company's expansion and scalability is severely restricted if it only concentrates on the Swedish market, but digital communication enables it to reach other markets outside the country's borders faster.

"I think that if you want to grow the Swedish fashion industry, you need to internationalise the Swedish fashion industry. From an e-commerce point of view—yes, the Swedish brands have adapted to that. But if you really look at their online shares, if you look at how much goes international—there's huge potential to grow that."

Achim Berg, Global Leader,
McKinsey's Apparel,
Fashion and Luxury Group

Figure 17[1]

What types of physical goods have you purchased by e-commerce in the last 30 days?

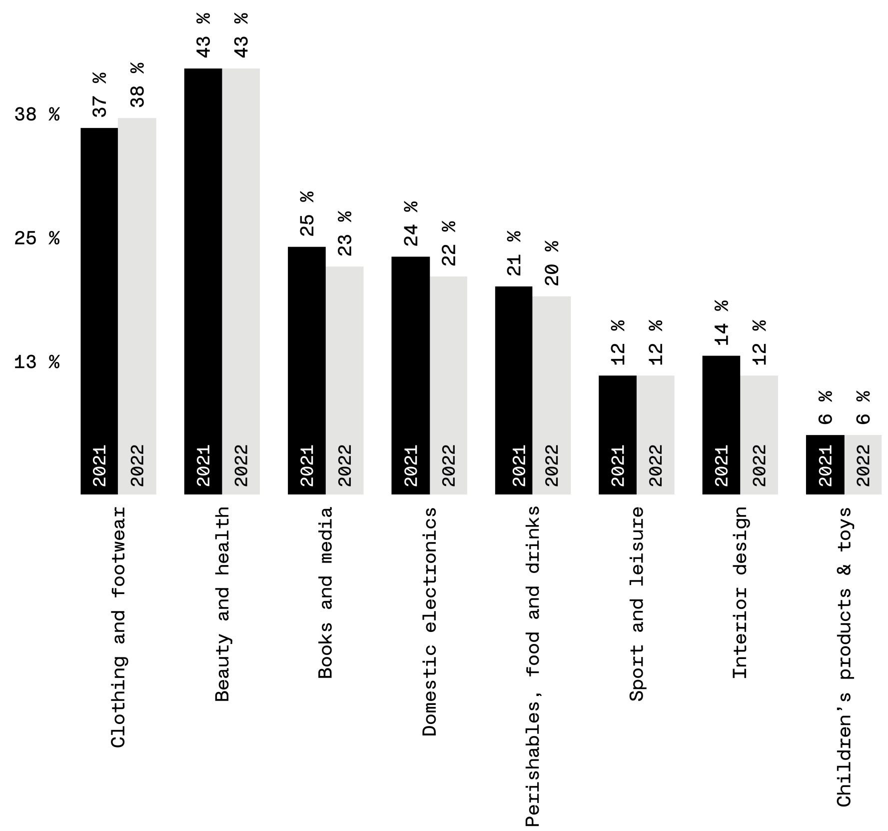
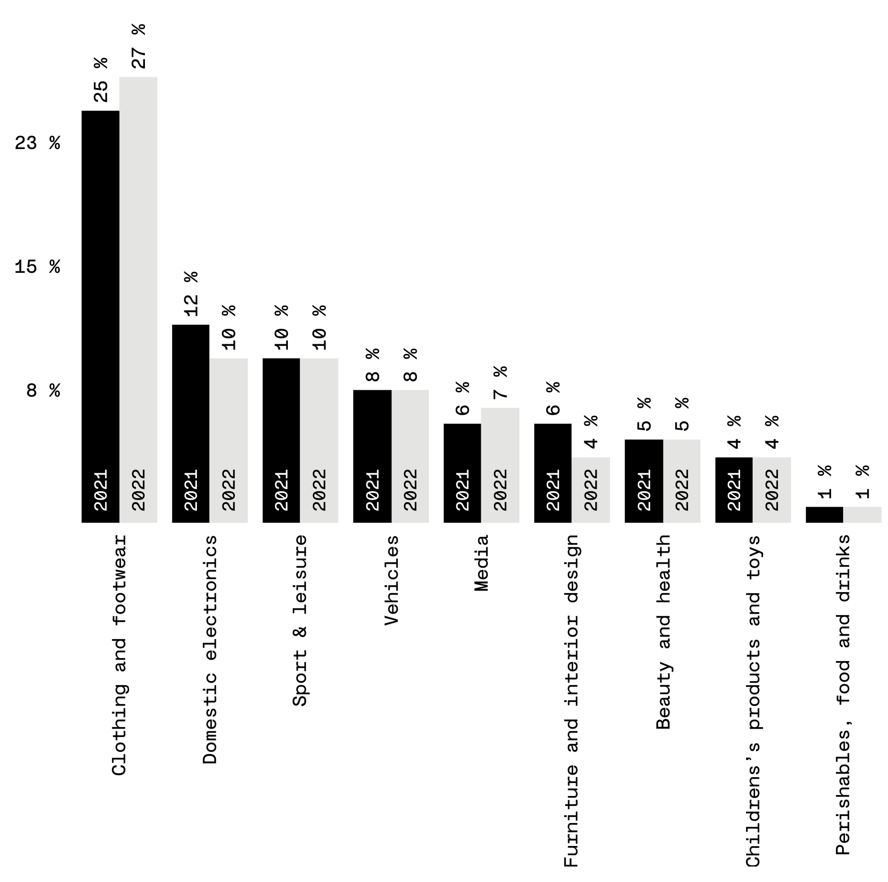


Figure 18[2]

Think back to your last e-commerce purchase from abroad. What goods did you purchase by e-commerce?



The fashion industry's exports

"It's great to have a strong and demanding home market that is appreciative of what you're doing. But you know, you are the biggest of all the Scandinavian markets but compared to other European markets it's a relatively small one, which means that you need to innovate and you need to make it work beyond your borders. On the other hand, I think that's a great opportunity."

Achim Berg, Global Leader, McKinsey's Apparel, Fashion and Luxury Group

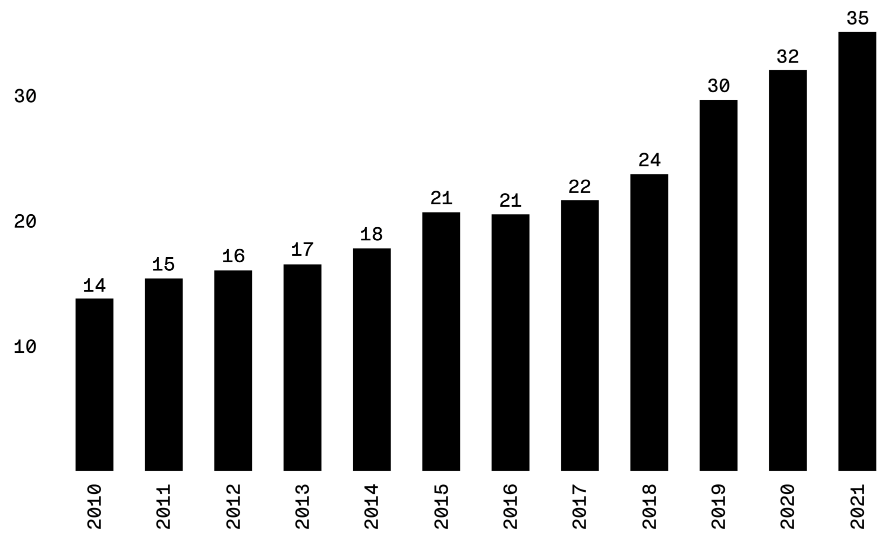
Over the past ten years, the industry has seen an increase in sales from SEK 120 billion (2009) to SEK 166 billion (2019). [FIG.19] Swedish fashion exports were valued at SEK 32 billion in 2020, which corresponds to 110 per cent growth in a decade. Fashion retail exports increased by approximately SEK 3 billion between 2020 and 2021, which corresponds to growth of almost 10 per cent. Domestic trade also increased, though more modestly, by one percentage point over the same period. The value of clothing and footwear consumed in 2021 was SEK 84,253.

"It's also very clear that if the fashion players in Sweden focus only on the Swedish market or only on the Nordic market, they are quite limited in what they can achieve. That also explains the structure that you have. You have one big player and then you have a couple of mid-sized players—but the difference in size between the biggest and the rest couldn't be any bigger. Compared to other structures the Swedish market also have a clear "glass ceiling". Glass ceilings are what we call the limitations when it comes to let's say 10 million euros, 50 million euros, 100 million euros and 200 million euros in sales. If you focus only on the Swedish market you will be at one of the lower glass ceilings, if you serve the Nordic market you can be 100 million, maybe 200 million. But then you need to manage to expand outside of the Nordic boundaries."

Achim Berg, Global Leader, McKinsey's Apparel, Fashion and Luxury Group

Like many other Swedish industries, the fashion industry is an export dependent industry. Due to the limitations of the domestic market, Swedish fashion operators must focus on going beyond Sweden's borders and establishing themselves internationally in order to grow and reach their full potential.

Figure 19
Exports by the Fashion Industry, Billion SEK



The fashion industry of the future

"We asked the same question in 2020, and then in 2021 around what makes brands most influential. In 2020, it was all about having a point of view, and last year that shifted to sustainability being the top of mind."

Isobel Farmiloe,
Strategy Director,
Dazed Media

There are two clear ways to go in order to create a sustainable fashion industry. One focuses on the development of new business models, new materials and a series of other innovations that result in a more resource-efficient industry. The other focuses instead on severely limiting the number of products placed on the market, while simultaneously finding solutions to circulate existing products for as long as possible. Both these aspects are crucial in order for the fashion industry to have a future that works and should be developed in synergy with each other in order for the transformation of the industry to take place as efficiently and effectively as possible. It has been noted in this report that the fashion industry is facing a major shift. That shift is complex and is driven by a number of different factors. Greater interest in sustainability on the part of consumers and an increasingly digital lifestyle are two crucial factors whose effects are predicted to be decisive. This development is clearly visible in terms of both the constantly growing second hand market and the development of digital fashion. An account of these two phenomena as set out in the following chapters.

THE SECOND HAND MARKET

Takeaways

The industry's sustainability challenges can be partly solved by strategic development of the second hand market. The lifespan of clothing is currently only half of what it was just twenty years ago. With new business models, a new attitude towards used clothing, political initiatives, such as a lowered VAT, and digital solutions that enable and simplify contact between sellers and buyers—the second hand market can revolutionise how we buy, sell and relate to clothes, both as garments and as textile resources.

However, extensive investments and reprioritizations are required in order for us to get there, particularly among the largest and ultimately also the most decisive players on the market. Such a transformation poses a major challenge, but it is also predicted to give rise to extensive opportunities for Sweden to position itself as an innovative, sustainability-driven, forward-looking market.

"Sweden is a rather early mover when it comes to sustainability. You just need to walk through Stockholm and you see that the topic is everywhere. But when it comes down to it—we either need to change the consumption patterns massively and/or we need to make the whole system far more circular. And that is a pretty big challenge. It requires lots of innovation because currently products are not designed in a way that they could become circular."

Achim Berg, Global Leader,
McKinsey's Apparel,
Fashion and Luxury Group

The issue of sustainability has been under discussion in the Swedish market for a long time. However, talking about it is not enough. Consumers and companies must work together to adapt to the changes in consumption patterns and development of the circular business models required in order to transform the industry. However, there is a risk that economic conditions and a desire for a sustainable transformation may work against one another. In the short term, it may be more lucrative for companies to continue with their usual linear models, rather than create a more circular flow. However, we see indications that the market may develop in such a way that operators will have no choice but to convert their businesses and invest in more sustainable business models.

"I don't think any operator can succeed over time without a clear sustainability profile. The thing I see, which I think is new in recent years, is that venture capital companies are actually aiming their investments in this direction. The money is flowing into sustainable types of funds and into companies of that type. It's a new phenomenon."

Jacob Wall,
Executive Vice President Business Development, Axel Johnson AB

The Swedish second hand market: an overview

"We are big believers in second hand and the development of reuse. The greatest potential for improving a garment's sustainability performance is by increasing its lifespan and the number of uses. We will see greater automation and digitalisation of second hand flows in the coming years as more and more clothes are collected."

Markus Danell,
Operational Manager,
Wargön Innovation

Circulating existing garments in the market for as long as possible is a crucial part of the transformation to a more sustainable fashion industry. Buying second hand is an example of a solution that extends the lifespan of a garment. The so-called second hand market has also experienced extensive development in recent years—a trend driven by young consumers and the digitalisation of the market.

"A lot of the younger cohorts want to have a mix of new merchandise and "pre-loved" or "vintage". We used to only call it second hand and it used to have a bad reputation, but we've seen that the digitization of that business has now made it sexy."

Achim Berg, Global Leader,
McKinsey's Apparel,
Fashion and Luxury Group

A growing second hand market was highlighted in the Swedish Trade Federation's report on the economic development of Swedish trade entitled "Läget i Handeln 2021". [FIG. 20] Total sales in the consumer market for used retail goods in 2020 were estimated at SEK 20 billion. The clothing category accounted for just over SEK 3 billion of those sales. Seen in terms of all companies in retail trade selling mainly used goods, the market grew by almost 15 per cent in 2019. That growth was more than four times as high as for retail trade as a whole.

The situation in retail trade confirms the decisive role of digitalisation in the development of the market and notes that the development of the second hand market has been characterised by extensive simplification as a result of digitalisation, which has given rise to a large number of digital marketplaces and services which have made the sales process smoother and easier. These have come to dominate the market in terms of value and number of transactions. The largest operators in the market include Tradera, Blocket and Facebook Marketplace. One aspect that these marketplaces have in common is their main focus on mediating the contact between buyers and sellers. Auxiliary services such as payment solutions, marketing and insurance are also added in some cases.

Of all the categories of goods in retail trade, clothing is the category with the highest number of transactions. [FIG. 21] Children's clothing stands out even more with the highest sales on the market. Best-selling used garments:

- Exclusive party garments
- Children's clothing and maternity clothing worn temporarily with the focus on function
- Exclusive party garments worn on isolated occasions (evening dresses, dress coats)
- Unique garments that are fun and creative
- Timeless and exclusive garments whose patina confers status.

"Läget i Handeln" notes that the development of the second hand trade is mainly driven by lower price levels, [FIG. 23] greater interest in sustainability on the part of consumers and opportunities to find unique goods that are not to be found in the trade in new garments. The price factor is the dominating driving force in all product categories. However, clothing is the category in which the sustainability aspect weighs most heavily. It has previously been noted that Swedish households are facing difficult economic times, which is a factor put forward as likely to further encourage the trade in used garments. This is because it involves greater interest in selling goods and the range of products on the market therefore increases. At the same time, price sensitivity and the desire to achieve bargains is likely to drive the demand for used clothing. However, an average price reduction of 55 per cent is required in order to induce the consumer to choose to buy used clothes in good condition in preference to newly-produced clothes. [FIG. 22] It should nevertheless be added that one prerequisite in order for a garment to be relevant for the second hand market is that it must be of sufficiently high quality to be circulated on the market.

There is therefore no doubt that price is a decisive factor in the purchase of used clothes. However, despite the fact that it is an important aspect, price is not the only explanation for the dramatic development of the second hand trade. An extensive shift in values has occurred whereby the second hand trade has gone from historically being associated with poverty, to being normalised and sought after in both physical and digital sales channels. This is partly due to greater interest in social media, a simplification as a result of digital sales channels and greater focus on sustainability among consumers.

Figure 20[3]

Higher growth in used goods than in retail as a whole

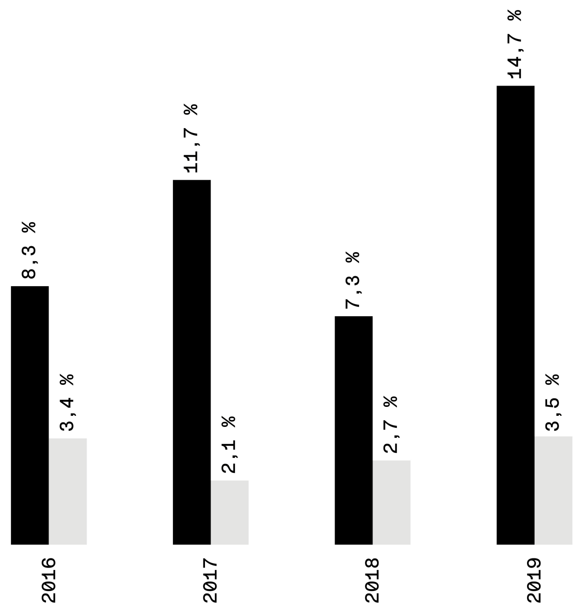


Figure 21[4]

Consumer question: what type of item did you purchase in your last used purchase?

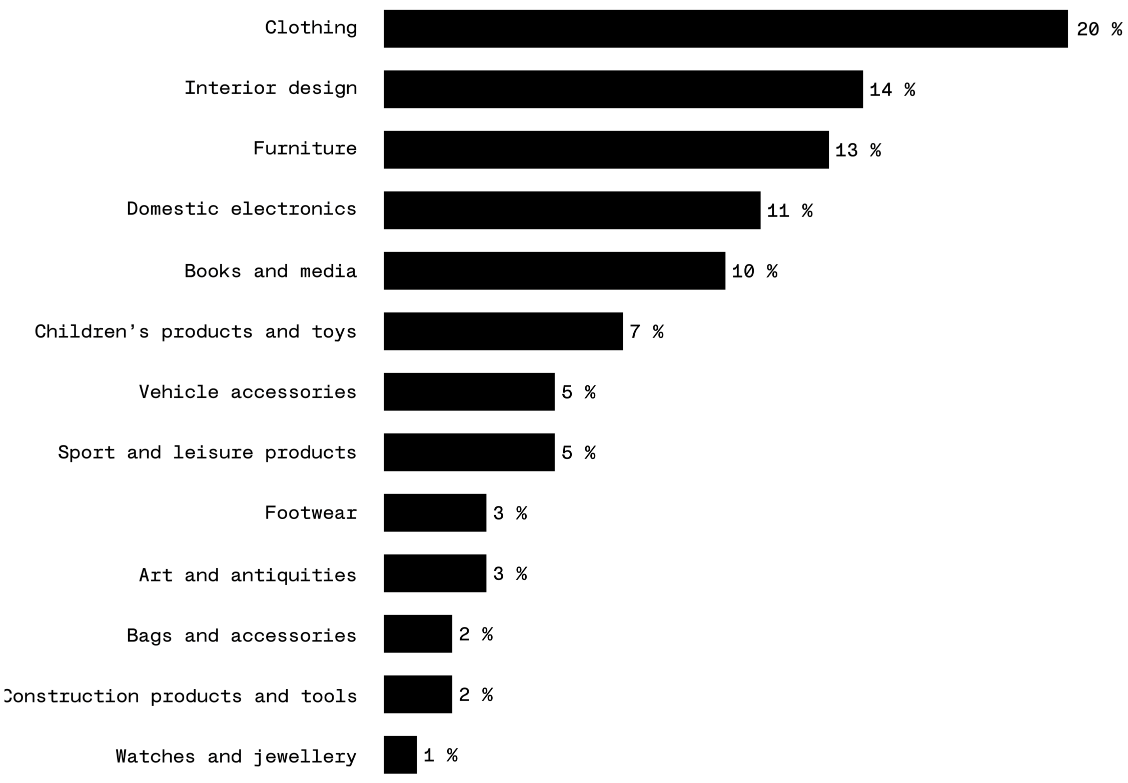


Figure 22[5]
The 50 per cent rule

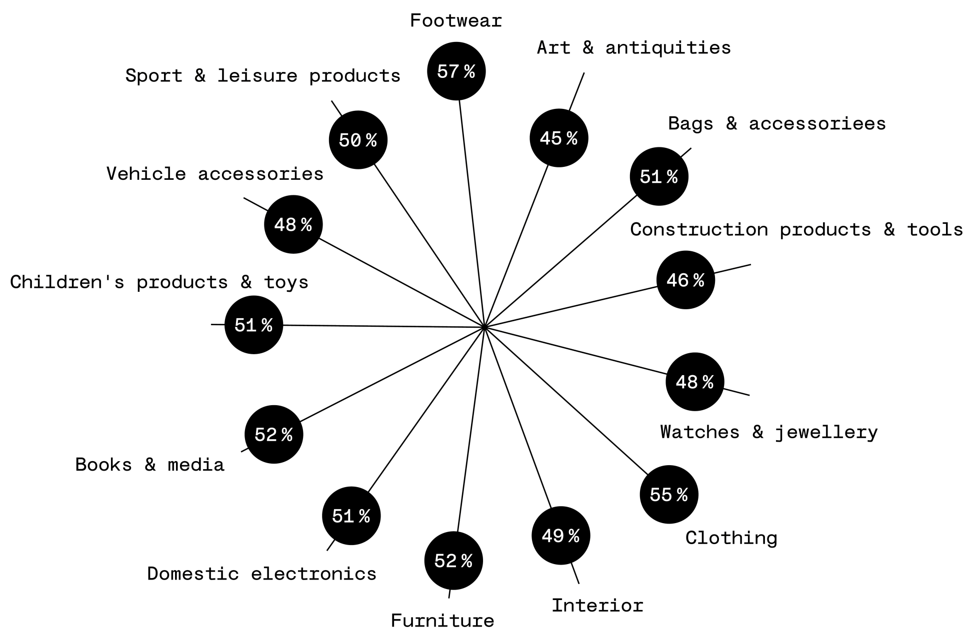
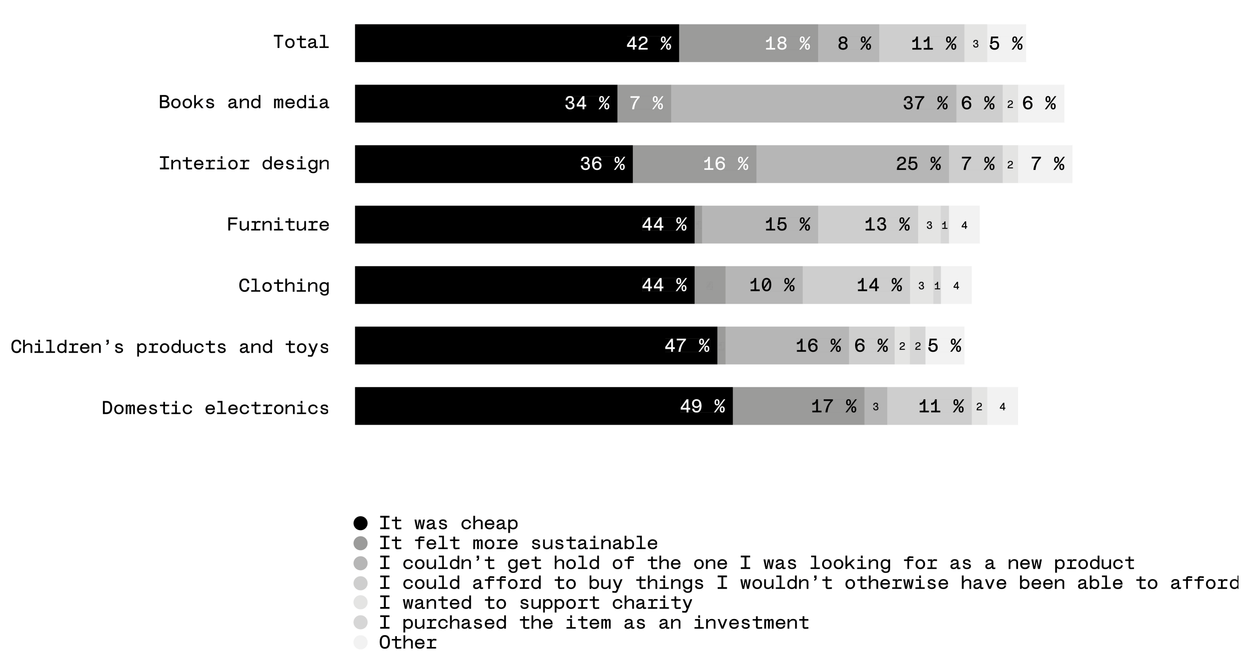


Figure 23[6]
Sector differences in driving forces



A change of approach

"If you look at the younger generations, there's no stigma. People not only have a neutral attitude towards second hand but are actually positive towards it. People start by looking for the goods second hand and they do it not just for price reasons but because it's a preference."

Gustav Wessman,
Chief Commercial Officer,
Sellpy

"We have a new generation that is used to trading and getting paid for their things. It's now challenging us and we need to explore that."

Caroline Andermatt,
CEO,
Myrorna

The development in the attitude towards second hand clothing described by Gustav Wessman and Caroline Andermatt is linked by both of them to the shifting attitudes and behaviour patterns of a younger generation. This points to a change in behaviour in the second hand market compared to the behaviour of those who previously bought second hand, who were often characterised primarily by factors such as age, lifestyle and class. Since the beatniks in the 1940s, second hand clothing has been popular among a group of young people who wanted to denote an alternative lifestyle through their clothing choices. When the beatnik culture transitioned into the hippie movement, second hand clothing was an important social symbol, particularly to denote a distance from traditional consumer society, and this was then developed in other subcultures. The past decade has seen a dissolution of the division between alternative culture and the mainstream as an effect of the internet and social media, which has also caused second hand clothing to lose its subcultural connotations, instead becoming part of a broader consumer culture.

Although clothes from the second hand market previously signalled either that the wearer belongs to an alternative youth culture or an economically subordinate group, today they have become a broader lifestyle indicator, sometimes being linked to an attitude in favour of more sustainable consumption patterns and also as a way finding more unique garments. That means that the purchasing behaviour relating to the second hand market need not be linked to a specific age. On the contrary, that behaviour can continue even after a person's youth. One important reason for this is that the digital sales channels for trading in clothing on the second hand market have changed the buying experience and now present second hand products in a way that is more fashion-orientated and awakens more interest. These platforms are often built for direct contact between consumers, who are able to market and sell their own products. They include Facebook Marketplace and Blocket, though there are also services such as Sellpy that provide logistics solutions for greater agility. Some fashion companies have also developed their own services in which they collect and sell used clothes from previous collections.

"The flexibility and simplicity worked very well with our sales service. We're now trying to incorporate that into the experience itself of buying second hand. Our goal is to enable everyone to live in a circular way. We want to be a force that makes it very, very easy to both buy and sell goods without needing to own and consume goods. It should be very easy for you to buy goods second hand and then resell them. You should be able to circulate the items you have instead of having to keep a wardrobe that's never used."

Gustav Wessman,
Chief Commercial Officer,
Sellpy

One of the challenges facing the second hand market is the fact that the infrastructure is completely different from the first-hand market, which places great demands on the operators in the market. Other types of sorting and collecting systems are therefore needed and the presentation of the goods is also an important issue in order to maintain the symbolic connotations of fashion, which are key for engaging the customer. Fashion and clothing are bought partly for their function, but also for their aesthetic and cultural value. Unless second hand clothing can be presented in a stylish and sales-oriented way, it will not shake off its old connotations associated with rags.

"A great deal will need to be invested to make it simple for 750 million Europeans to buy and sell second hand. So a lot of investment is clearly required—and that is obviously an area where the political authorities can help. Different types of subsidies are important in order to help with these investments if you want to ignite this sector and make it grow faster. Because being able to continue doing this efficiently and achieve the scale required to really enable this to make a big difference to our common CO_2 emissions will require ongoing investment in logistics, warehouses, hardware, technology and developers."

Gustav Wessman,
Chief Commercial Officer,
Sellpy

It is not only the range of second hand clothing itself that is enormous, the market potential is also huge. New business models will need to be developed and existing methods—such as subscription, rental and exchange services (so-called sharing services)—will also need to be refined and scaled up.

It has also proved easier to reach new buyers in certain clothing categories, particularly in children's clothing, though the women's clothing sector is the largest in the second hand market, in terms of both supply and demand. Men's clothing is an extremely underdeveloped category with great potential for second hand sales. This—selling the same garment several times over—is not only one of the best things from the point of view of sustainability, but it's also one of the easiest things you can do. Other options to extend the lifespan include recycling the materials themselves or mending and repairing, though neither of these options is as efficient as selling an existing used garment.

One perspective that can serve to illustrate the nuances of the question of the value and potential of the second hand market is to distinguish between clothing from different market segments and different categories of clothing.

"The challenge is the mountain of these everyday clothes. Another challenge is the fact that that many of the clothes that are produced in fast fashion do not last for one or two more transactions. So then we're back to the design chain, the full manufacturing process."

Caroline Andermatt,
CEO,
Myrorna

"How can fast fashion have any legitimacy in a world that increasingly demands sustainability? Companies need to focus on making garments longer-lived. Firstly, they should be repairable. Then they should be usable as second hand and redesign garments. Then, after very many uses, it should be possible to recycle the materials. Large-scale collection and sorting is crucial in order to make all this possible. That part of the value chain is really exciting."

Markus Danell,
Operational Manager,
Wargön Innovation

Everyday clothes, particularly those of poorer quality manufacture, possibly pose a problem for sales of second hand clothing. On the other hand, they can be seen as an attractive resource if we do not focus solely on reuse of the garments, but approach the challenge in a more diversified way, by seeing materials and garments as different types of resources, which can be turned into new, attractive products using simple resources. Possible political support could act as an incentive for an expansion of the second hand market, which is an option pointed out by Caroline Andermatt, CEO of Myrorna.

"In Sweden we have reduced VAT on restaurants and also on books in order to provide an incentive to consume. I believe it's time to get behind the 6 per cent issue in order to stimulate sustainable consumption and the fact that this would naturally apply to all operators, not just the non-profit ones, goes without saying. I think it's a clear political incentive in order to provide the impetus for the transformation."

Caroline Andermatt,
CEO,
Myrorna

"In a circular economy, it can't be cheaper to produce and sell a new item than it is to repair an existing one. We really need to "circulate" more and more goods and also take advantage of the opportunities for work that this provides. A tax reduction of 50 per cent, for example, on repairing and maintaining products could be another example of a political measure. As things stand, it's significantly cheaper to buy a new children's overall than it is to mend the zipper in a used one."

Caroline Andermatt,
CEO,
Myrorna

Tax issues are a national issue, but at a supranational level important decisions have already been made to provide impetus for the development of the second hand market. The EU wants to see an increase in producer responsibility and by 2024 the Member States will have reviewed specific interim targets for reuse and recycling. The Swedish Environmental Protection Agency's proposal of a 65 per cent reduction in Swedish households' textile waste during the 2015–2025 period is also included within this framework. At the same time, there must also be a holistic approach to the fashion industry.

"We can't work with sustainable consumption as a goal while, in parallel, there are new collections from the new clothing trade coming out every week. We need to work together on this issue and this is a challenge for all business models."

Caroline Andermatt,
CEO, Myrorna

"You know I think, with all respect to startups, amazing small brands and everything they bring—they will not move the needle. They can be poster children of change. They can show what is feasible. They can be driving forces of innovation and they can also grow their business through that. But we will only change the system, if the big ones change theirs. Because that is where the volumes are, that's where the turnover is and that's also where the money is. Because somebody has to finance all of that, and I think it's a great opportunity for the financial industry and the private equity industry to back up those things—because there will be high demand for it. But it also needs to be adopted by the big players, that is a prerequisite for change. But of course, if you build certain clusters, which I think is an opportunity for Sweden and the North—then why wouldn't companies from outside those clusters then support that, invest into it and benefit from it?"

Achim Berg, Global Leader,
McKinsey's Apparel,
Fashion and Luxury Group

DIGITAL FASHION

Takeaways

The pandemic and the confinement that followed greatly accelerated the digitalisation of our society, particularly connected to how people socialise via digital platforms—from communication solutions such as Zoom and Teams to social media and gaming. This development also increased people's interest in exploring their own digital identity. Fashion brands have taken advantage of this opportunity, with many of them finding ways to integrate with gaming, which in the long term allows users to form a new kind of relationship with the brands. For many users, the fact that digital fashion has the ability to completely exclude textile materials is a powerful incentive, linked to the broad interest in climate efficient solutions that allow users to continue to express their identity through fashion, but in a way that is less exploitative of natural resources.

Useful terms[7]

Metaverse (Metaversum): What is referred to as the "Metaverse" is still under construction and there is no uniform definition of the term at present. What seems clear, however, is that the Metaverse will lead to a major shift both in terms of technology and in the way we interact with digital platforms and with one another.

The Metaverse is believed by many to be characterised by virtual worlds with great similarities to the development we have seen in the gaming industry in terms of immersive experiences, the pursuit of social contexts, emphasis on the players' identities and the ability to express these by adapting clothes, accessories, houses and other things. The Metaverse is also believed to lead to the development of a new sub-economy in which digital goods and assets can be created, bought and sold. Some people hope that in future it will also be possible to move smoothly between different platforms. However, we are a long way from any such development.

NFT: A digital representation of a unique digital asset recorded in a blockchain. Registration involves documentation of ownership of the unique digital asset, which makes it possible to sell, buy and transfer digital assets.

Avatar: A digital image or graphic representation of a person used in virtual worlds such as games and social media.

Virtual clothes and skins: The visual representation of clothes and accessories created using technology or 3D software which can be used in social media and games, for example.

Digital fashion: an overview

In addition to greater focus on sustainability, the fashion industry is also characterised by consumers' increasingly digital lifestyles. The shift to spending more time in digital spaces has given rise to a greater need to be able to express one's identity in new ways and using new, digital resources. Consequently, we have seen a number of initiatives precisely in digital fashion. The development is closely linked to the constantly growing gaming industry and in recent years we have seen a number of operators in the fashion industry cross the industries' boundaries. This chapter contains a presentation of digital fashion, its driving forces and consequences, as well as its relevance to the Swedish market.

"Why we're seeing this shift right now is because people are looking for a more sustainable alternative to the fashion industry. Which is something that was already happening pre-pandemic, but that has now accelerated because of that. The second thing is that we are living our lives more digitally every single day. Especially because of the pandemic, we really learned how to live with those digital mediums. We learned to live with the fact that our lives are becoming more digital every single day and that most of the things that we do are now digital instead of physical. So as a result, there's a need to present ourselves and our identity in the digital space. This was then pushed even further by the whole NFT boom—which was also accelerated by the pandemic."

Amber Jae Slooten,
Co-Founder and Creative Director,
The Fabricant

The development of digital fashion and what is referred to as the "Metaverse", where large parts of the industry are expected to be located in the future, may feel difficult to grasp. But, despite that, it is predicted that there will be extensive business opportunities in the industry's digital future. McKinsey's report entitled "The State of Fashion Technology" states that the Metaverse has so far been used primarily as a marketing channel for fashion companies that have gained exposure and have been able to connect with their customer base, including through investments in digital concerts and game collaborations. However, the value of the Metaverse is predicted to extend beyond marketing and is expected to account for 5 per cent of companies' sales over the next 2–5 years, provided that they invest right now in developing a strategy for innovation and commercialisation of their businesses in the metaverse. The global gaming industry is predicted to grow dramatically in the coming years and the market for digital fashion is believed to be following the same pattern. [FIG. 24, 25]

"Gaming is a 240 billion US dollar valued industry, so this is huge. A lot of the turnover that people generate comes from buying some special features, buying some special weapons, buying the 30 gold coins to do this and that. Why would they not spend money on getting their branded dress? And I think that's the big question and we haven't found a good answer why they wouldn't, and therefore we believe that this is growing. But it's a very early stage."

Achim Berg, Global Leader,
McKinsey's Apparel,
Fashion and Luxury Group

In 2021, the value of the virtual goods purchased globally was equivalent to a 110 trillion dollars, which was more than double the amount spent in 2015. The corresponding figure is expected to be at least 135 trillion dollars in 2024.

The future of the Metaverse is talked about a great deal, but it remains to be seen how it will develop. Many of the operators in the industry will probably wait with their initiatives until a clear ROI (Return on Investment) can be demonstrated. However, the need and the willingness to create and adapt their identities in digital forums has been identified as an area with long-term business potential. There is interest in the constantly growing global gaming industry in particular. The global market for "skins" in games is predicted to reach 70 trillion dollars in 2024, which would represent a significant increase on the 40 trillion dollars the market was estimated to be worth in 2020.[8]

"We are seeing a new generation and new behaviour where what jeans you wear in the school playground it is no longer as important as what your digital presence (avatar) looks like. That trend is growing and it includes all kinds of digital forums, not just games but also other digital platforms such as Instagram. We are also seeing how the game developers and the gaming industry as a whole are adapting to this culture. In many cases, the fashion is created by the community and then gets all the way into a platform or game in the form of a "skin". Many games have unleashed players' creativity and allowed them to build and create costumes."

Kunal Chopra,
Founder and CEO,
Frame

Figure 24[9]
Global gaming industry, billion USD

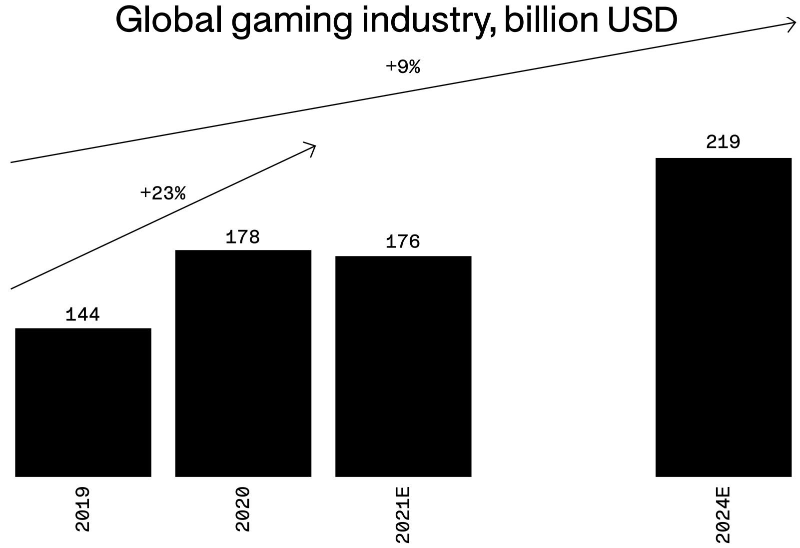


Figure 25[10]
NFT sales USD

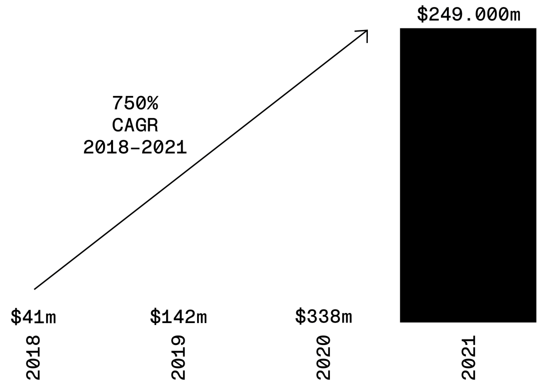
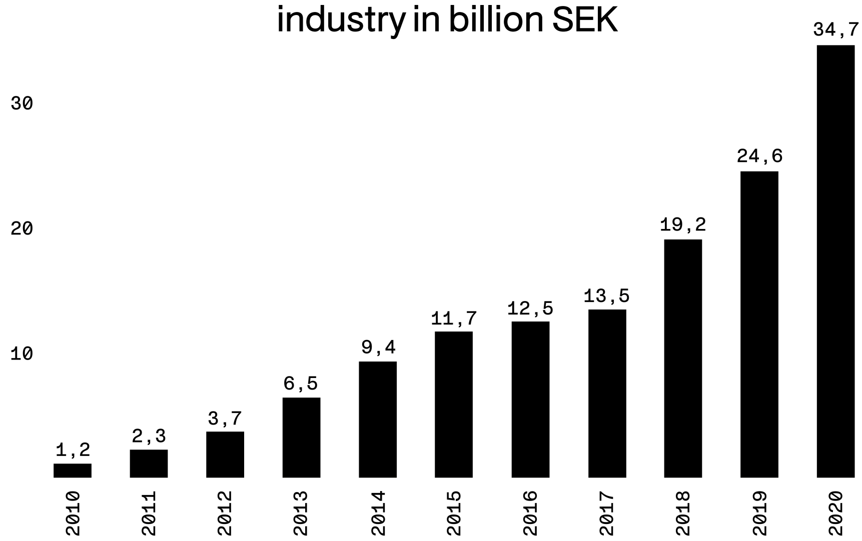


Figure 26[11]
Turnover of the Swedish gaming industry in billion SEK



Fashion has become such a central force in society, which nowadays includes more or less the entire population of the earth, not only due to the fact that clothing meets functional needs such as protection from the wind and weather, but also because fashion communicates social, emotional and psychological desires. This has been expressed through clothing for almost a thousand years. Fashion has therefore become synonymous with textiles and tactile expressions. Humans' interest in expressing their identity through fashion helped drive the industrial revolution (which began with an innovation in textile production). That existential interest in exploring and communicating one's own identity is universal, but what is happening right now is that new technological innovations are dissolving the historical connection between fashion and clothing. Today, many people in the digital worlds express themselves not through clothes manufactured in traditional materials such as cotton and wool, but through the way they portray their digital selves, their avatar. Physical clothing is based on the characteristics of the human body. It is therefore shaped according to a torso, with a holes for the neck and for the arms and legs. A digital avatar, on the other hand, does not need to be based on human limitations and nor does it need to take into account such aspects as gravity, the different nature of textile materials or how physical spaces create limitations on what you can wear.

"If I want to wear a dress that's 10 metres long in the real world, that's just really impractical. But in virtual space, you can take up as much space as you like, because there is enough space. There are all these interesting elements to dressing in the digital space and all these interesting materials. I feel like fashion right now, it's a repeating thing. It's just a repetition of a repetition of a repetition, and it's a copy of a copy of a copy. And at some point, it's just becoming extremely boring. Where I see it going in this new direction is really that we get to be creative again, that we get to explore new ideas."

Amber Jae Slooten,
Co-Founder and Creative Director,
The Fabricant

Since the late 1970s, researchers, trend consultants and designers in the fashion world have described how the fundamental laws of fashion are being rewritten, moving from a hierarchical, Paris-centric fashion system to a world in which several trends can exist in parallel and can just as often arise spontaneously among different consumer groups as in the designers' studios. This development has been described in dramatic terms as the "end of fashion" and as "the death of fashion", but at the same time as it means the end of the traditional fashion system, it is also the beginning of something new. According to Achim Berg, the development of digital fashion and the Metaverse may even provide an opportunity for the Swedish fashion industry to position itself as a leader in the global market of the future with the aid of the Swedish market's power of innovation and existing extensive technological expertise.

"The question is who are the winners of the metaverse? Is that the digital e-com platforms or are they now the incumbents and somebody else will attack them? And I think that poses another opportunity for the Swedish industry, because this is much more tech driven than it is traditional fashion driven. The benefits that players have with the heritage in Italy and France and in some cases the UK and Germany, that could turn into a disadvantage because they are too much in their old world. So from an opportunity point of view, we're all pretty much a level set at the moment. There is a lot of technology and innovation in Sweden. Why wouldn't that be the opportunity for the Swedish industry?"

Achim Berg, Global Leader,
McKinsey's Apparel,
Fashion and Luxury Group

The Swedish gaming and fashion industry

The way the fashion industry is integrated with the gaming industry can take on forms other than just translation of traditional fashion items to a digital context, since it is about taking the digital worlds into consideration and using their premises as a starting point. Fashion does not need to be created, communicated or used in the digital world in the same way as in the physical world. In the long run, it opens up the possibility for technological innovation and the gaming culture to be the driving force in development. The success of the Swedish gaming industry and progress in that industry is therefore of particular interest.

"When it comes to the metaverse, I think the very strong Swedish gaming industry should come in handy."

Achim Berg,
Global Leader, McKinsey's Apparel,
Fashion and Luxury Group

The Swedish gaming industry has experienced great success in recent decades. The industry's total sales increased from SEK 1 billion to almost SEK 35 billion between 2010 and 2020. [FIG. 26] The number of companies rose from 115 to 667. Profits increased from SEK 15 million to SEK 7.6 billion and the number of employees in the industry rose from 1,203 to 6,596. Per Strömbäck, the Spokesperson for Dataspelsbranschen believes that the positive trend we have seen in the Swedish gaming industry will continue.[12]

"We can probably count on continued growth. Some people talk about a bubble, but this isn't a bubble; it's individuals buying with their own money and that's what drives development. Since then, we have historically been good at adapting to any new technologies, formats and business models that have arisen. Sometimes we've also driven that development. So I dare say we'll continue to manage."

Per Strömbäck,
Spokesperson for
Dataspelsbranschen

He also believes that the connection between fashion and gaming is not a new phenomenon, but is a development of a relationship that already existed.

"Historically, there have probably been many examples of the close connection between games and fashion. There have also been quite a lot of fashion games over the years. So it's not all that strange. On the contrary, I'd say it confirms what we've seen in the past."

Per Strömbäck,
Spokesperson for
Dataspelsbranschen

Consumers become co-creators

"As a fashion label, we are giving away some of our rules, some of our freedom we're giving that away to the community, the consumer or co-creator. We want them to be able to adjust the product and use them to their own benefits and create them for their own liking. So, it's really about creating that place where people will be able to do that."

Amber Jae Slooten,
Co-Founder and Creative Director,
The Fabricant

The development that Amber Jae Slooten, Creative Director at the digital fashion house The Fabricant is talking about is not an isolated phenomenon, but is a widespread trend that characterises the emergence of digital fashion. That development runs completely counter to the previous extremely hierarchical structure of the fashion system and entails extensive changes. When consumers become co-creators, it not only changes the design of fashion. It also challenges the fashion system itself. It affects how the role of designer is defined and also opens up the way to new business models and completely new expressions.

Digital fashion: an opportunity for the Swedish fashion industry

"I think the talk about Metaverse is going back to the point of the glass ceilings and the boundaries that the Swedish industry faces. I think that could be an interesting area where you could get out of your boundaries because in the metaverse nobody cares whether it comes from Sweden or somewhere else."

Achim Berg, Global Leader,
McKinsey's Apparel,
Fashion and Luxury Group

It has been noted above that the Swedish fashion industry is export dependant and dependent on an international market for its growth. According to Achim Berg, the digital arena represents a golden opportunity for Swedish fashion to easily go beyond its borders and reach new markets. This is because physical boundaries are blurred and the origin of a product dramatically decreases in importance—which means that the barriers to the international market that Swedish fashion otherwise faces will disappear.

However, digital fashion requires market operators to familiarise themselves with the digital fashion system and the opportunities that accompany this new platform.

"We see a lot of brands rushing in because they're reacting to this as though it were a trend. It isn't really. This behaviour has emerged along with the technology that makes it available and with a culture associated with people born in the 80s. As a brand working in fashion, it may initially be worth understanding what you want to say and then understanding what platforms and associated target groups best suit your purpose. We also see a lot of brands not really taking advantage of the fact that digital creation has infinite possibilities. It's easy to get stuck in a rut with ingrained behaviour. In that respect, we want to encourage the people creating fashion to dare to be creative and really dare to stand out. We believe that tremendous opportunities exist. For example, a fashion week taking place in the Metaverse—but maybe without a traditional catwalk. Maybe you should think differently. Maybe it should be held on a lilac beach on Jupiter. That's kind of the idea that we're trying to convey, particularly to the creators at the brands—try and challenge yourselves. This is giving you the chance to create something completely new."

Kunal Chopra,
Founder and CEO,
Frame

What can we expect from digital fashion?

"I see the future of brands like this: there'll be less stores, but more brand experiences and more digital convenience. And even more as the tech capabilities increase, there'll be more of us using these spaces. And I think there's also this interim period regarding the connection of online and offline. I was interviewing the founder of RTFKT and he was saying that "I find Instagram boring now, it's so 2D. Once you've experienced these 3D-worlds, it's so powerful". I think we're at this stage where there's a lot of talk and hype around it, but maybe not everyone is experiencing it yet."

Isobel Farmiloe,
Strategy Director,
Dazed Media

One of the challenges when discussing the digitalisation of fashion is to come up with a specific timetable for when the transformation will take place on a larger scale. Already, several of the biggest operators, ranging from companies in the international luxury sector such as Balenciaga and Louis Vuitton to Swedish H&M, have made several attempts to penetrate the market. It is therefore clear that the big shift has already begun. One important question is therefore how digital fashion should be defined. It can be a question of anything from creating digital clothes for specific social media, where the user can develop different styles and looks for media with different functions: more professional for Twitter and more personal for Instagram, for example. Developing more digital clothing can reduce the need to own multiple types of textile garments, which can lead to a reduction in the overproduction of physical clothing and thus also reduce the mountains of textile rubbish around the world. But it can also be about creating digital clothing that only exists in online worlds. In the gaming world, skins have already become a popular product, whose potential the fashion world has also begun to appreciate. 90 per cent of Generation Z people in Europe are gamers, which requires a specific strategy on the part of fashion companies that must face and adapt to developments.

It is clear that digital fashion is currently developing to become more pluralistic in terms of design, creation processes and business models. There is room for traditional fashion houses that base their approach on their existing design history and brand communication, but in a digital sphere, as well as for completely new and digitally-based ways of thinking about fashion. Gaming is a big part of the digital culture, but the online world also accommodates social media and several other types of channels, driven by the fashion houses and by the users, which also require more people who are able to work creatively at the intersection of gaming and fashion.

"I still find the concept of the Metaverse tricky, but I know it's a part of the future. I think it's about understanding how to enhance experience and do interesting, fun, entertaining and meaningful things in the digital space."

Isobel Farmiloe,
Strategy Director,
Dazed Media

Digital fashion is basically about the same thing that textile fashion has revolved around for the past thousand years: communicating aspects of a person's identity that relate to both the personal and the distinctive, but that can also allow the wearer to be part of a social context. In general, there are two ways forward for the future of the Scandinavian fashion industry: to invest in its existing strengths (for example, by emphasising its already well-known commitment to sustainability) or to make use of the Swedish market's innovative power and technological progress and allow it to drive fashion forward along completely new paths and in completely new directions.

"There's lots of innovation on the tech side when it comes to Sweden. It would be great if the fashion industry would find a way to connect that with what they do."

Achim Berg, Global Leader,
McKinsey's Apparel,
Fashion and Luxury Group

FASHION'S TECHNOLOGICAL ACCELERATION

Takeaways

When digitalisation is implemented in design and production, it allows the process to be made more efficient, which both simplifies the work and has a positive effect on the current resource-intensive production phase. Such improvements reduce the use of textiles in the industry and can thus help to further improve the fashion industry's negative environmental impact. The fourth industrial revolution is about several types of technological innovations, which can improve processes in different ways and in different parts of the fashion industry, simplify the fashion system and help increase sustainability. In the same way that previous revolutions have radically affected the basic conditions of the fashion industry, the fashion industry of the future will also look fundamentally different thanks to the digital innovations now being developed.

The fashion industry's technological revolution in general and the development of industry 4.0 in particular are also crucial for efforts to achieve a more sustainable future for the industry. The Swedish market's wealth of innovation, technological expertise and extensive understanding of sustainability can help position the Swedish fashion industry at the leading edge.

"Sweden could be a hot bed to grow sustainable innovation because local consumers are supporting more sustainable business models that on the one hand probably have to sacrifice a bit on profitability, but also on the other side will work with smaller volumes and higher prices. So I think that is a big opportunity. But it's not trivial. If it would be trivial, I could give you a long list of companies that do that right and at scale."

Achim Berg, Global Leader,
McKinsey's Apparel,
Fashion and Luxury Group

Useful terms[13]

AI—Artificial Intelligence: AI can be used to observe patterns in data and then reinterpret those patterns to provide different types of insights.

Machine learning: is a part of AI that enables computers to "learn" without needing to be programmed. In the fashion industry, AI and Machine Learning can be used to optimise value chains, analyse data and make operations and production more efficient in a number of different ways.

Blockchain: is a type of "distributed database technology". It acts as a decentralised, transparent register that stores information. What distinguishes the register is the fact that it is not possible to subsequently change the information registered in it and the fact that it is possible for a number of operators to both view and register information in the register. In the fashion industry, blockchain technology can be used to increase transparency in the value chain, increase the traceability of products and facilitate the authentication of products sold second hand.

Extended Reality (XR): The term "Extended Reality" includes what is referred to as "Virtual Reality" (VR) and "Augmented Reality" (AR).

Virtual Reality (VR): enables a person to enter an alternative reality using aids such as a headset with so-called VR glasses.

Augmented Reality (AR): instead adds a virtual layer on top of a person's actual surroundings. This is done using smartphone filters, for example. In the fashion industry, AR can be used for trying on clothes and accessories digitally. VR instead enables the creation of digital fashion in virtual worlds such as digital games, showrooms and fashion shows.

The Internet of things (IoT): is a network of physical objects (hardware) connected using embedded sensors and applications (software).

5G: The Internet of Things is enhanced by 5G, which provides faster, less costly data transfer than previous versions. In the fashion industry, the Internet of Things is mainly linked to wearable products such as smart watches and smart glasses, as well as other products with built-in sensors. However, Internet of Things technology can also be used in RFID technology to access information about a product's materials, origin and care.

Radio-frequency identification (RFID): RFID technology uses radio waves to identify and track objects using an RFID tag and a reader.

Near-field communication (NFC): is similar to RFID technology, but works over shorter distances. NFC technology transfers data from a product to smart phones and tablets, for example. In the fashion industry, these technologies can be used to track products and orders in real time. This can help companies to increase a product's traceability and recycling and make inventory management more efficient.

Robot: A robot is a self-controlling machine that performs tasks without human intervention. This is unlike what is referred to as a Cobot (collaborative robot) that collaborates with humans. One example of a Cobot is a robotic arm controlled by a human. In the fashion industry, robots and cobots can be used in factories and warehouses to perform repetitive, precise, heavy and sometimes dangerous tasks to make systems more efficient.

Fashion and technology: an overview

"I think that research and innovative development will play a major role when it comes to fashion, precisely because the volumes to be dealt with are so enormous. We obviously believe in producing less, using fewer garments and using garments for significantly longer periods. That aspect is incredibly important. But we don't have time to wait for the kind of behavioural change that's required in order to get there. We believe that innovations that are able to scale, meet demand and replace the existing volumes will have the greatest impact in the coming years."

Harald Cavalli-Björkman,
Chief Growth Officer,
Renewcell

The transformation of the fashion industry requires extensive technological development and innovation on a number of different fronts. Efforts must be made in particular to dramatically improve the production, distribution, collection, sorting and recycling of garments and make it more efficient. The industry's technological revolution has already begun and McKinsey's report entitled "The State of Fashion Technology" predicts that there will be more extensive technological innovation in the next 10 years than there has been in the last 100.[14]

The fashion industry's investments in technology have so far mainly been directed towards e-commerce, but are now expected to focus on digitalisation of internal processes to a greater extent. It is predicted that the investments will be directed towards a number of different fronts with the goal of expanding and optimising business, profitability and cash flow. Global fashion companies are expected to increase their investments in technology from 1.6—1.8 per cent of sales revenue in 2021 to between 3 and 3.5 per cent by 2030.[15]

Technological development and implementation are also expected to play a major role in combating the industry's major challenges, both in terms of sustainability initiatives and securing goods and production chains. The challenges caused by the pandemic, which were further amplified by the war in Ukraine, made the defective structure of fashion companies' value chains painfully clear to operators in the industry. Extensive investments are therefore expected to focus on strengthening these and making them more efficient.[16]

In the search for a more sustainable business, brands and retailers are also expected to direct investment towards greater transparency and traceability. Projects of this kind have already begun to be implemented.[17]

"The garments manufactured in the project can be tracked using blockchain technology via an app. The app allows you to see who, how and where the fibre was manufactured and to actually follow the entire process. The exciting aspect is that we connected it to Swedish production and chose to produce it in Sweden as well as the fact that a major operator like Gina Tricot was interested in doing it. So we took measurements of electricity and water in our premises and even how we got to the office in the morning, etc."

Felicia Lundberg,
project manager and CEO,
XV Production

It is predicted that the fashion industry's investments in technology will focus primarily on the following areas:

- Personalisation
- Shop technology
- Value chains (known as end-to-end value chain management)[18]

In addition to these points, substantial investments are also expected to be directed towards new production technologies within the framework of Industry 4.0 (see Section 4.2 Industry 4.0 below).

Artificial Intelligence

The operators in the industry are expected to invest extensively in AI and machine learning in the hope of being able to create relevant support for decisions regarding demand and pricing. The development of such processes will also have a considerable effect on the sorting phase and will thus be able to streamline reuse and recycling of garments.[19]

"Recently, we have spent a lot of time on a project in which AI is used for sorting and valuation of second hand textiles. You can use AI to build large datasets of second hand garments which can be connected to other datasets. It can provide support for decisions by the person sorting the garments and it has the potential to increase efficiency, reduce monotonous tasks and increase the quality of decision-making. It's exciting if you can connect it to price data for example— what does this shirt cost at Tradera right now? As a textile valuer, it's almost impossible to keep track of all garments when you're faced with hundreds or thousands of brands, styles and models. AI can help maximise the use and the value of garments by enabling them to be sold in the right channel, at the right time and for the right price."

Markus Danell,
Operational Manager,
Wargön Innovation

However, the scope for use of AI is much wider than that and it could be decisive in the search for the sustainable materials of the future. "AI can also be used for sourcing new materials, for example. You can use AI to understand how to "build" new types of materials in these chemical material processes that are both sustainable and recyclable. There is also a lot of research on how to use bacteria to dye clothes, for example, that can be developed with AI."

Danica Kragic,
Professor of Computer Science,
Royal Institute of Technology, Stockholm

AI could also be used to limit overproduction and to avoid a situation whereby large quantities of clothing are placed on the market and remain unused and at risk of being thrown away or burned. However, great flexibility is required in the production chain in order to make use of the insights that AI can provide.

"Using AI, you will be able to predict demand and in future you will need shorter times to adapt production and avoid overproduction. But that also requires production to be extremely fast and agile. It works for some operators in the market at present, but not all."

Danica Kragic,
Professor of Computer Science,
Royal Institute of Technology, Stockholm

Personalisation

"I don't know what it is that prevents us all from just simply going into some 3D scanning place and scanning our bodies in 3D, in the same way as we previously copied paper, so we have a model to use when we buy clothes. You can use it to see what you really look like when you're wearing the garment. You can rotate the model or see what it looks like when you run or walk. It's not easy to simulate, but you can do an awful lot with machine learning. That's probably the most exciting aspect. If you get into the habit of scanning your body once a year in exactly the same way that you might look after your teeth or have your hair done, it also enables you to monitor changes in your body."

Danica Kragic,
Professor of Computer Science,
Royal Institute of Technology, Stockholm

Technological development in the fashion industry is expected to bring about a simplification and also to make different types of personalisation of fashion available with the aid of 3D scanning. Danica Kragic, Professor of Computer Science at the Royal Institute of Technology believes that this development has already begun and will be completely possible in the future. However, the development of 3D scanning not only makes it easier for the consumer to decide for him or herself whether a garment will be a good fit, but can also play a major role in the design and production process.

"Right now we're in the process of carrying out digital pattern production, but it's a fairly simple process. We're also implementing a system that simplifies the colour process, combined with digital tests via 3D visualisation. Then we can carry out checks digitally in which the garment doesn't even need to be sewn in order to see what needs to be adjusted. It's practical because you can do it remotely and also because you don't need to make any finished samples, or not as many at any rate, since we can visualise these processes instead."

Felicia Lundberg,
Project Manager and CEO,
XV Production

Shops of the future

The technological development of fashion will also have a considerable effect on the industry's shops. The shops of the future are expected to be characterised by a more flexible shopping experience, including the use of applications that can be used for various purposes in shops to make things easier for the customer.

"What will a physical shop be like in five years' time? I think it'll be a lot more automated. Maybe with small robots that go round and facilitate the experience, with the ability to see whether what you want is available in-store in a flexible way, help you find it and allow you to pay for it directly through them and so on."

Danica Kragic,
Professor of Computer Science,
Royal Institute of Technology, Stockholm

There is no doubt that the industry is facing a fundamental transformation that is driven by all-pervasive technological innovation and implementation. The operators in the industry must embrace this development as early as possible in order to benefit from it. Any that fail to do so risk facing a huge existential threat.[20]

Industry 4.0

"Digitalisation using AI, robotics and automation is the core of industrial technology and Industry 4.0. More industrial technology will enable us to create jobs in Sweden and develop production locally, for example through returns, sorting, raw material production and upscaling of circular production systems and business models. In order for Sweden to become competitive, processes must be automated wherever possible, and we're looking into that a lot."

Markus Danell,
Operational Manager,
Wargön Innovation

As with many other production industries, Industry 4.0, or the fourth industrial revolution, is an important aspect of the future of the fashion industry, both nationally and internationally. The fourth industrial revolution, also known a Industry 4.0, is characterised by aspects such as the "Internet of Things", artificial intelligence and robotics. The development of Industry 4.0 involves digitialisation of production chains to create so-called smart factories. In smart factories, cyber-physical systems are able to make simple decisions and act independently to some extent. These systems consist of a combination of built-in computer systems and material equipment that uses IT to control machinery and equipment in the factory. Cyber-physical systems are based on computer systems that communicate with one another and/or with people in real time. AI plays a major role in Industry 4.0, particularly by analysing data, discovering patterns and producing supporting data for decisions and insights in order to adapt production.

Industry 4.0 is expected to bring about higher productivity, higher product quality and, in general, optimised production chains and processes in which overproduction, for example, is minimised. The extensive innovation accompanying Industry 4.0 also means extensive opportunities for finding new circular solutions to the industry's challenges.

"Right now we're in the process of adapting to Industry 4.0 and optimising as much as possible when it comes to production. We need to find many more solutions before we can talk about a 100 per cent circular economy. It isn't enough for us to put out the previous generation's fires by redoing the garments once. We need to find new, completely circular solutions in which it kind of goes round 100 per cent."

Felicia Lundberg,
Project Manager and CEO,
XV Production

The digitalisation in progress is not only about technological development, but must also be understood on the basis of the considerable increases in population that have taken place in modern times. The population of the world has risen from 1 billion to 7.9 billion since 1800. Regions such as Asia, Africa and Latin America have experienced population growth of between 400 and 700 per cent since 1900. At the same time, life expectancy has practically doubled, giving rise to a more elderly population internationally, and the global middle class has also expanded. These changing conditions and consumer groups have demanded radical improvements in efficiency and greater digitalisation, which is usually summarised as the fourth stage in the industrial revolution. As stated above, this revolution is characterised by such aspects as the development and application of new technological advances in areas such as artificial intelligence, quantum computers and robotics.

"It's about a lot of different things. We're looking a lot at how we can make robots interact with soft objects, which objects in the fashion industry mostly are, in the same way as they're used at present to handle hard objects in car manufacturing. For example, we're looking at how to build systems that can fold a garment and examine garments to enable you to perhaps evaluate the quality of the garment and so on. We're also looking a lot at being able to automate the recycling of garments. Other aspects are about understanding patterns on which clothing design is based and how that can be adapted to the body. We're also working on the logistics chain to see how to automate it and create better automated inventories to handle returns better, for example. So there really are a lot of things!"

Danica Kragic,
Professor of Computer Science,
Royal Institute of Technology, Stockholm

However, the technological development faced by the industry and the establishment of Industry 4.0 is complex and will result in extensive innovation on a number of different fronts. Everything from sorting, recycling, personalisation and logistics is expected to face fundamental modernisation and to have a major impact on the future of the industry.

Artificial intelligence is absolutely crucial in Industry 4.0 and can to some extent assist in making information systematic in a way that is not always possible otherwise. It can be a question of time-saving and quickly carrying out a chemical analysis of textiles as well as quickly analysing large quantities of data to predict consumer needs in a more accurate way, which can minimise the risk of overproduction of garments that no-one buys. But AI can also be used to relieve people engaged in heavy physical work. In this respect, AI can contribute to social sustainability by reducing the risk of repetitive strain injuries and workplace accidents.

"How do you achieve a more automated production line particularly in take-back models or reverse supply chains? The core of this is AI and digitalisation in order to increase speed, reduce manual handling and allow humans to use their brains and not their muscles in the production environment. It creates a better working environment when robotics do the heavy lifting and carry out the manual movements. But to enable robotics to be used, processes must be digitalised or become AI-based—just like in the automotive industry."

Markus Danell,
Operational Manager,
Wargön Innovation

DIVERSITY IN THE FASHION INDUSTRY

Takeaways

The diversity issue in the fashion industry is crucial from a business strategy point of view. The more perspectives you have in rooms where decisions are made, the more alternative answers you have. This provides what is referred to as a "high perspective density" which has been confirmed to result in greater creativity, greater innovation, greater profitability and a greater customer understanding. Since the fashion industry is an industry in the middle of a transformation that involves great opportunities but also extensive challenges, this is an issue that no one can afford to overlook. The industry must actively prioritise a greater "perspective density" at all levels of the company in order to access and utilise as much expertise available in the market as possible.

The Swedish Fashion Council, along with The Social Few, has begun a study to further study the situation in the industry. The results will be presented in the autumn of 2022.

Useful terms

People of Colour (POC): is a term that includes people from ethnic groups that are considerd as non-white and highlights the systemic racism experienced by these groups.[21]

Black, Indigenous and People of Colour (BIPOC): is an acronym that stands for "Black, Indigenous and People of Colour". According to The New York Times, the term can be traced back to a tweet from 2013. The acronym is based on the phrase "People of Colour", (POC), which has been used for centuries and is quoted in The Oxford English Dictionary as early as 1796. The two letters of the term "BIPOC" that stand for "Black" and "Indigenous" were included in acronyms to also include black people with darker skin tones and people belonging to the indigenous population of America. The acronym "BIPOC" therefore includes all skin types and ethnicities part of marginalised minority groups.[22]

Social sustainability: focuses on a society without unjust differences. According to the Public Health Agency of Sweden, social sustainability means that people's equal value is at the centre and that "all people are included—regardless of gender, education and income level, social status, ethnicity, religion or other belief, place of residence, sexual orientation, transgender identity and expression, age and disability". On 25 September 2015, the UN Member States, including Sweden, adopted Agenda 2030, which consists of 17 global goals for sustainable development that also includes social sustainability along with an economic and ecological perspective.[23]

Intersectionality: The word "intersectionality" comes from the word "intersection". It is used to denote how different power structures and grounds for discrimination influence and reinforce one another. One important starting point for intersectional analysis is the fact that people's experiences, identities and abilities are formed on the basis of a number of different positions in society that cannot be understood in isolation from one another. Women, for example, are never "just" women, because gender relations—just like class, ethnicity, or sexuality—are not sufficient to explain how inequality arises and the way in which power is exercised.[24, 25]

Structural or institutional racism: Structural or institutional racism is a societal pattern of behaviour that prioritises and favours white people and constitutes a barrier for people of minority groups. Structural racism arises when various social structures and systems exclude ethnic minorities from participating in social issues at the same level as other citizens. Both structural and institutional racism are defined by the fact that they are "hidden" and in many cases unconscious. Those who practise this form of racism maintain a pattern of social discrimination that is based on the normalisation of ethnic hierarchies.[26]

Black Lives Matter is a movement that started in the USA after African-American Trayvon Martin died as a result of racial profiling in Florida in 2012. Deaths with similar causes sparked off protests around the country and contributed to a new generation of activists who issued demands relating to the US judiciary and police brutality. During the protests, which were a consequence of the tragic deaths of George Floyd and Brianna Taylor, the BLM movement grew stronger and spread to more continents in 2020. Protests and activists around the world highlight the problems with the police system and the racism being practised. The movement also calls for a restructuring of police funding in the USA.[27]

The situation in the Swedish fashion industry

After the Black Lives Matter movement emerged in the summer of 2020, voices were also raised on issues of racism and discrimination in the fashion industry. As a result, the Swedish Fashion Council began work on a preliminary study aimed at investigating the situation in the industry. Over 80 people in the Swedish fashion industry were interviewed as part of the study. The preliminary study was a first step in the work to draw attention to and counteract structural racism and discrimination in the fashion industry. The preliminary study made it clear that a number of operators are experiencing an extensive lack of diversity, particularly at senior levels in companies, where one of the interviewees stated that "The higher up you go, the whiter it gets".[28]

The preliminary study aimed to investigate special treatment based on ethnic and cultural background. However, the concept of diversity is broader than that and also includes gender, socio-economic background, age, sexual orientation and disability. This chapter and the work begun by the Swedish Fashion Council to survey the situation in the industry focuses on ethnic and cultural background and gender as a first step.[29]

The importance of many different perspectives

"When you look at your teams it's about really questioning who's in the room. Because we all have our own biases without knowing. So question everything—who is in the room, how much diversity do you have at the board level? You want points of view from all over the world from different perspectives and backgrounds—you need that. And it needs to start from the inside, rather than just trying to do something to get a headline."

Isobel Farmiloe,
Strategy Director,
Dazed Studio

Innovation and creativity are crucial for future-proofing organisations. Previous research shows that a diversified workforce can lead to greater creativity, power of innovation and spread of knowledge. Further research indicates a positive correlation between broad ethnic diversity among management teams and company profitability. Companies with employee diversity experience clear positive effects on the working environment in social terms and it also helps to increase understanding and the ability to reach customer bases at companies.[30, 31]

"If you look specifically at the fashion industry, it is in great need of innovation, improvement and renewal since the industry is also a huge culprit if you look at the sustainability goals existing today."

Nora Bavey,
General Partner,
Unconventional Ventures

With the extensive and, in many cases, demanding transformation being experienced by the industry, the need for innovation likely to be greater than ever before. In order to increase the pace of innovation, the industry should make use of all available resources, regardless of background. The transformation being experienced by the fashion industry should also be seen in the light of the global sustainability goals in order to ensure that it meets requirements both in social and ecological terms and in terms of economic sustainability. The focus is often on the latter two aspects, but social sustainability is equally key to ensuring that the industry develops in a way that is favourable in the long term.

Figure 6

Number of people employed according to age

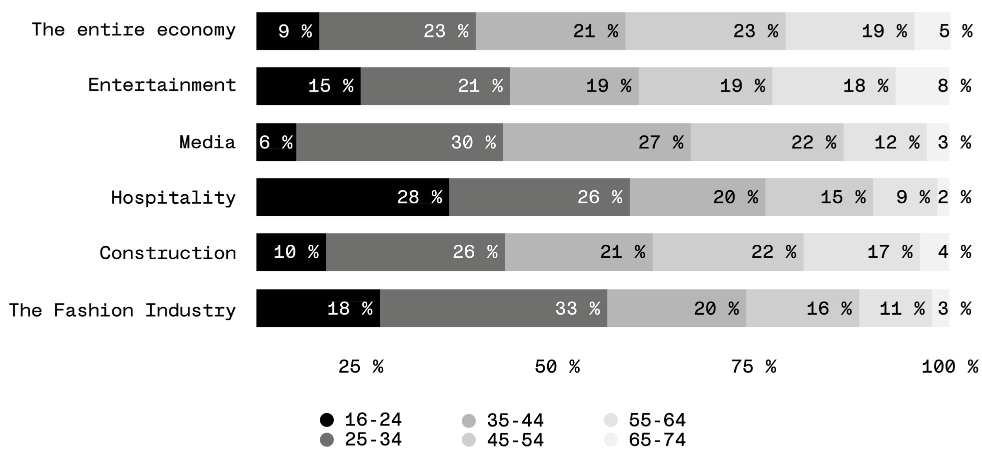
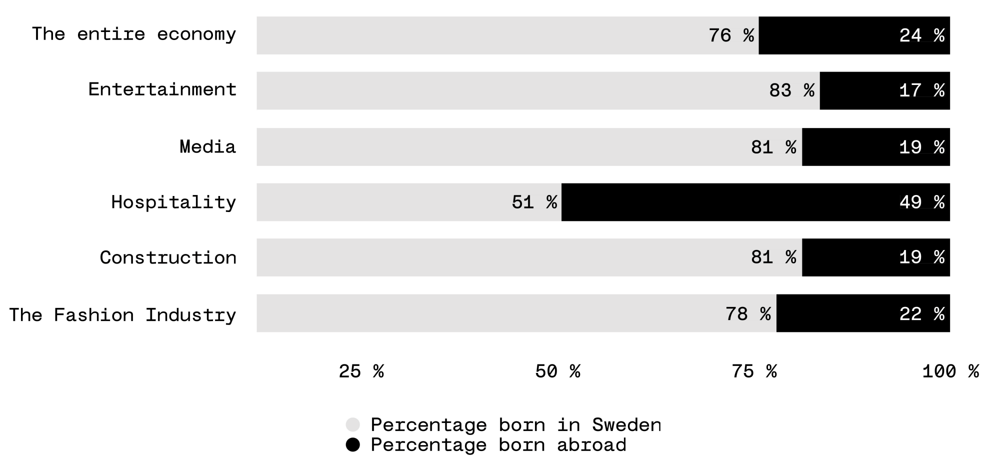


Figure 8

Number of people employed according to origin



"If we look at the people in positions of power today, the problem is that they are constantly looking at diversity issues as something to be added on later. It is considered as a 'nice to have' and not as 'need to have.'"

Nora Bavey,
General Partner,
Unconventional Ventures

In order for social sustainability to permeate the business, it is important for the diversity perspective to be included right from the start instead of being added on later. This can affect corporate development in a number of ways, from insights into consumer behaviour to how business models should be structured in order to be profitable. In this way, social sustainability really is integrated into companies' commercial dimensions.

"If you look at ownership and managerial positions, they're still very male, even in this industry where most people are female. It's a huge problem because optimum solutions to problems are not found because all the points of view that could contribute solutions to the problem are not present. There isn't the focus on consumer groups that there could be. You build to cater for consumers based on an extremely homogeneous perspective and we think this is extremely dangerous because then you don't build sustainably, you don't build in a way that can improve the industry. Instead, it's extremely narrow-minded."

Nora Bavey,
General Partner,
Unconventional Ventures

"It goes without saying that if you have a team with high perspective density and you ask a question, you're more likely to get different answers. What we've seen is that there is a clear link between the number of different answers and the pace of innovation. The higher the proportion of different answers you get to the same question, the more solutions and ways forward you have. Also, solutions for more people. That also leads to sustainable business models."

Suzan Hourieh Lindberg,
CEO, The Social
Few and Perspetivo

There are structural challenges when it comes to making the fashion industry more inclusive and accessible. One key issue is the system of unpaid internships which is a way of gaining relevant work experience for many people who lack experience. However, the lack of financial compensation requires interns to have a pre-existing level of financial stability, often through parents or a partner who cover expenses during their internship period. People who have no safety net therefore don't have the opportunity to do those internships and therefore can't begin a career in the fashion industry. As a result, the industry risks missing out on important insights and perspectives. One option is to do a course of study funded by the Swedish Board of Student Finance which includes work practice, though that requires you to meet the application requirements and to be willing to get into debt in order to gain access to the work practice period.

"Swedes from a foreign background account for a quarter of the Swedish population today. If we look at young people under the age of 18, the corresponding proportion is one third. In practice, that means that one in three people under the age of 18 have two parents who were born abroad. How do we then ensure that we also future-proof the industry and become attractive and accessible to the fastest-growing heterogeneous target group? Action must include creating better conditions to ensure that more people have access to the industry, including those who aren't able to work for nothing. We need to look at the kind of infrastructure that exists when people come into the industry. In that respect, as an employer you can, for example, decide not to use unpaid internships or to only do it for short, limited periods."

Suzan Hourieh Lindberg,
CEO, The Social
Few and Perspetivo

The importance of measurable parameters

The fashion industry consists of 74 per cent women and 26 per cent men. [FIG. 6] If you compare the fashion industry with other industries, the industry is on a par with the economy as a whole and also has a similar proportion of foreign-born employees: 22 per cent as opposed to 26 per cent in the population as a whole. [FIG. 8] The figures show that men are under-represented to a considerable extent. However, the distribution within the industry's various professions and positions it is not clear. One important next step is to carry out further analysis of the statistics and more detailed research on who works in what positions and therefore has the most influence. Measurement tools should be developed in order to achieve a better overview of the conditions and development of the fashion industry. Regular statistical compilations can provide an incentive to work on change.

"What is measured is what is being done. Then you hold people and companies responsible."

Nora Bavey,
General Partner,
Unconventional Ventures

"I think the reason why diversity isn't measured nowadays is very much because we don't have a tradition of measuring it and, despite the fact that we're trend-sensitive, we are at the same time extremely bound by tradition with regard to things that affect our brand image. Combine that with a low level of expertise and anxiety over inclusion issues and the situation is what we see today. For example, some people don't want to be associated with identity politics because "we've never done that." That's down to ignorance of what identity politics actually involves and, above all, of the importance of data to be able to make a real difference."

Suzan Hourieh Lindberg,
CEO,
The Social Few and Perspetivo

One specific way of carrying out work on change with the aid of statistics is to produce KPIs, Key Performance Indicators. These provide a measurable value that allows results to be quantified in a precise, impartial way. In order for the process to create a more inclusive fashion industry, it must be based on actual, updated figures. As a result, the Swedish Fashion Council, along with The Social Few, has begun a diversity survey in the industry. The results are expected to be presented in the autumn and represent a first step in a wider study to survey perspective density in the Swedish fashion industry. In view of the results that emerge, the Swedish Fashion Council will engage in discussions with other operators in the industry to draw up specific action plans for any action required. In order to provide further impetus for this work, we should, from a political point of view, look beyond the symbolic value of the diversity issue in political terms and instead focus on specific initiatives.

"Politicians are too busy using the diversity issue as a matter of debate, instead of dealing with the incredible challenges that exist. It's not unusual for politicians to use the same parameters for all these environmental policies as they do for diversity. We want Swedish companies to do well and for the Swedish fashion industry to do well. It's good for everyone, in terms of both tax revenue and reputation. Future-proofing the fashion industry should therefore be in the politicians' interests."

Nora Bavey,
General Partner,
Unconventional Ventures

To adopt the same approach, from a political point of view, to social sustainability as to ecological sustainability would show that all aspects of sustainability work are devoted to the same ambition. The strategic and long-term work in order for fashion to become a more inclusive industry must be consolidated and driven forward from within the industry and its central organisations and platforms, albeit with political support. When more experiences and life stories are represented, it leads to a more dynamic corporate culture with the potential to greatly improve the industry's future prospects.

TRANSFORMATION OF THE FASHION INDUSTRY: POLITICAL INITIATIVES

Takeaways

A number of initiatives have been carried out at the EU level aimed at driving the transformation of the fashion industry forward. These are expected to have extensive implications on the Swedish market. Swedish politicians should work to have them implemented as smoothly, efficiently and with as much impact as possible. A number of other measures should also be adopted at a national level in order to further strengthen the transformation of the industry. These include:

- Extensive investments in research and innovation in order to simplify sorting of textiles, develop circular business models and otherwise increase the rate of innovation in the industry.
- Tax relief in the form of Textil-ROT and lowered VAT on second hand clothes to stimulate the second hand market and circular streams.
- Establishing Sweden as a front runner by developing a product passport that sets the parameters for the work at EU level.
- Creation of a continuous, structured collaboration between the industry and political authorities through the establishment of a contact person for fashion and textile issues in the government. This would contribute to a more efficient and more impactful work to transform the industry and position Sweden as a global leader in the future of the industry.

Through an open dialogue and continuous collaboration between the industry and political stakeholders, we can work together to enable Swedish fashion to establish itself as globally leading in the sustainable, digital and innovative future of the industry. Such a position would not only serve to promote the export dependent fashion industry, it would also strengthen Sweden's image as a front runner within sustainable innovation, entrepreneurship and creativity.

"Politics needs to be prepared for the fact that a major transformation is required if we are to make the textile industry circular and all stakeholders, including the public sector, then need to contribute with investments. The automotive industry would never have managed the ongoing shift towards electrification without a willingness to invest on the part of both the public and private sectors and it would be naïve to think that the transformation of the textile industry is any different. The industry must dare to invest and the public sector can then provide security and support in order to reduce the risks."

Markus Danell,
Operational V,
Wargön Innovation

"It's the consumers, the companies and then it's the politicians. They have to take some of the responsibility. They have to provide incentives for doing things a particular way or make it a punishable to burn textiles, for example, as they did in France. It's also about supporting research and supporting scaling up of innovations and large-scale solutions that make a circular fashion industry possible. It mustn't get too bogged down in talk. Instead, the political authorities have to focus on actually doing something and making it easier and more flexible to find solutions and come up with innovations."

Harald Cavalli-Björkman,
Chief Growth Officer,
Renewcell

"The shifts in behaviour take more time, but governments could support this by putting in more initiatives, sanctions or other ways to change the industry. That's the only way that things are really gonna change quickly—and there is real urgency now."

Isobel Farmiloe,
Strategy Director,
Dazed Studio

Initiatives at EU level

The fashion and textile industry is facing extensive changes, driven not only by the dynamic sector, with constantly developing industry and commerce and committed, aware consumers. Political insight into the fact that the industry needs to undergo a sustainable transformation has increased during the European Commission's current term of office (2019–2024). A number of political initiatives have been adopted that are aimed at both business and commerce as a whole and at the fashion industry in particular.

An important governance document for this work was presented on 30 March 2022, going by the name of the EU strategy for sustainable and circular textiles. In a 15-page document, the Commission sets out its objectives for the coming years with regard to all aspects of sustainability linked to textiles. The document contains overall discussion of levels of ambition as well as extremely specific measures. These include:

- New design requirements for textiles.
- The introduction of clearer information and a digital product passport.
- Reporting requirements and stopping the destruction of unsold or returned textiles.
- Tackling pollution caused by microplastics from textiles.
- Green environmental statements only for textiles that really are sustainable.
- Extended producer responsibility and greater reuse and recycling of textile waste.
- Launch of a discussion forum with relevant stakeholders for the textile ecosystem of the future.
- Reversal of overproduction and overconsumption of clothing: driving fast fashion out of the fashion industry.
- Securing of fair competition and compliance in an effective internal market.
- Support for research, innovation and investment.
- Development of the skills needed for the green and the digital transformations.
- Due diligence for environmental and social justice throughout the supply chain.
- Addressing the challenges of exports of textile waste.

It is estimated that around 20 new or changed pieces of legislation will be implemented in the next few years. Under the heading of new design requirements, for example, there are new requirements for producers to state expected lifespan, repairability, the possibility of obtaining spare parts and recyclability. How these will be calculated and communicated remains to be seen since more specific requirements for clothing and footwear will be developed through specific legislation (so-called delegated acts).

Challenges for a sustainable transformation

There is broad consensus among all the various stakeholders, in politics, industry and commerce and the non-profit sector, that the fashion industry needs to become more sustainable. The operators in the industry are also currently undergoing a transformation and are developing, testing and rolling out more sustainable circular business models. The challenges they face include the fact that: There is insufficient capacity available for collection and sorting of waste on an industrial scale.

- There is no market for raw materials with recycled materials available on a large scale and at a competitive price.
- There are no harmonised producer responsibility requirements (reporting, collection systems, definitions/area of applicability).
- There is no coherent strategy for sustainability information on textiles that focuses on simplification and harmonisation and that is based on robust scientific evidence and proven consumer understanding.
- Lack of support for circular business models (e.g. financing and promotion of research into sustainable textiles, financial instruments and incentives).
- There is no qualified workforce to cope with the digital transformation and companies often have insufficient resources to employ personnel qualified in IT.

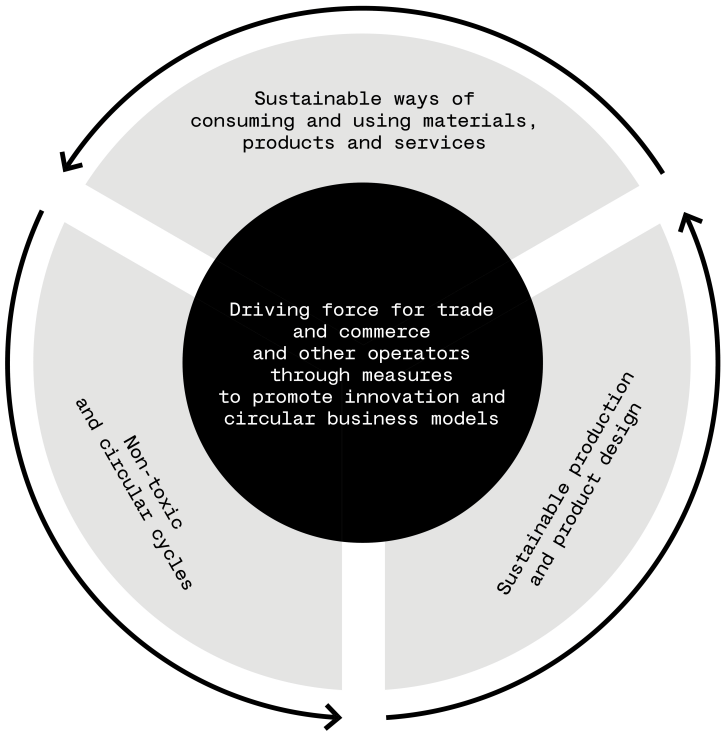
It may be noted that a number of measures need to be adopted to ensure that objectives are fulfilled. Ecodesign measures, for example, must promote innovation and should not have counterproductive restraining effects. Markets for secondary raw materials should be promoted through harmonisation and producer responsibility. There is an urgent need for greater investment in expertise and innovation, which is crucial for developing sustainable materials and valuable recycling of textiles. The expansion of innovative technologies and processes and further building up of expertise will also be key to ensuring the transformation to a circular textile production and consumption system for textiles. Financing and investment in recycling technologies are needed in particular. Finally, digitalisation is absolutely key to success in the sustainable transformation of the entire industry.

Figure 27

Initiatives at the national level

FOCUS AREA 1
Circular economy
through sustainable production
and product design

FOCUS AREA 2
Circular economy through sustainable
ways of consuming and
using materials, products and services



FOCUS AREA 4
Circular economy as a driving force
for trade and commerce
and other operators through
measures to promote innovation and
circular business models

FOCUS AREA 3
Circular economy through
non-toxic and circular cycles

The importance of recycled materials

In order for the vision of sustainable textiles to become a reality, more access to high-quality secondary raw materials is required at competitive prices. Recycled materials are more expensive at present due to the extensive manual work involved in collecting and sorting materials for recycling. Incentive-driven economic instruments may therefore be necessary to make this profitable and at the same time provide employment. For example, harmonised producer responsibility is necessary and it is unfortunate that this is not based on a Swedish model. That is because political decisions have not been made in Sweden and Sweden has now been overtaken by other EU countries that are establishing the framework.

Product passports

Product passports aim to provide digital information on products, for example the materials included in the product and how the product can be recycled and repaired. The information is intended to facilitate work by producers and other operators in the circular value chain, to make it easier for consumers to make active choices and to serve as a source of information for work by market surveillance authorities.

A digital product passport, properly designed and synchronised with voluntary industry schemes, for example, could help facilitate the circular economy. Digital tools can channel information between operators in the value chain and help companies create greater transparency. More information for consumers can also enable them to make more active, informed choices. Nevertheless, it is very important for the product passport to be designed in a way that promotes and does not harm the competitiveness of European industry and commerce. There are several important aspects to be taken into consideration such as protection of business secrets and ensuring that the passport is based on open, competitively-neutral future-proof standards. With an appropriate data structure, a digital product passport can make it possible to achieve political and industrial goals more effectively, which also benefits consumers. By developing a system for product passports as soon as possible, Sweden also has another chance to establish the framework for the work on transformation at EU level.

Rapid development of circular business models

The number of operators in the industry testing new circular business models which offer repair services to customers and which integrate used textiles into consumers' daily shopping experience is increasing rapidly. Business models based on rental services for garments are also becoming increasingly available. These are able to support the goal of reducing dependence on raw materials, limit the generation of textile waste and reduce the effects of industrial production processes while creating space for innovative consumer services. However, the integration of used textiles will lead to a need for greater clarity in legislation when it comes to guarantees and responsibility for used products.

Initiatives at national level

It is clear that, at EU level, great opportunities are identified in the transformation of the fashion and textile industry and extensive measures have already been adopted to stimulate it. The initiatives being implemented at EU level are expected to have extensive implications for the Swedish market. In order to facilitate their introduction, Swedish politicians should press for them to be introduced as smoothly and with as much impact as possible on the Swedish market. By taking advantage of an already existing widespread interest in sustainability among consumers, a strong tech sector and a wealth of innovation, Sweden can position itself as a front runner in the future of the industry.

Textile & Fashion 2030

Work to strengthen the transformation of the textile and fashion industry has also begun at national level. In April 2018, the government commissioned the University of Borås to establish a platform for collaboration between operators in the entire value chain whose work involves environmentally sustainable textiles and sustainable fashion. The platform will work to achieve relevant national environmental goals and Agenda 2030 goals and will single-mindedly promote the transformation to a circular economy in which circular chains are the norm. It will thereby contribute to sustainable development in environmental, social and economical terms. The platform is also intended to be the natural knowledge and collaboration centre for the sector with the aim of ultimately making Sweden a leader in matters concerning the environment and sustainability. The platform's target groups and collaboration plans include small and medium-sized enterprises, decision-makers, authorities and public procurers, institutions, NGOs, universities and colleges, consumers and influencers, as well as students. The overall goal of the national platform for sustainable fashion and sustainable textiles is to position Sweden as a world-leading partner and role model in the circular economy with minimal environmental impact when it comes to textiles and fashion.[32]

Initiatives at national level

Cirkulär ekonomi—Handlingsplan för omställning av Sverige [Circular Economy—Action plan for the transformation of Sweden] highlights the need for the transformation of society in order for Sweden to achieve the established environmental and climate goals, secure welfare and the competitiveness of industry and commerce and achieve the global goals for sustainable development in Agenda 2030. In particular, the action plan highlights the importance of promoting innovation throughout the value chain and emphasises the need for all-pervading renewal and development in line with the strategy for the transformation decided on by the government on 9 July 2020. [FIG. 27]

The model above illustrates the four focus areas specifically identified in the government's strategy. Action in these four areas is highlighted as being of particular importance. The strategy also highlights a number of priority streams in particular need of action, textiles being one of them. It is clear that extensive efforts are required to drive the transformation of the industry and, in the long run, establish the Swedish fashion and textile industry as the most sustainable, innovative and forward-looking on the global stage. Priority should be given to the following measures at national level:

- Extensive investments in research and innovation in order to simplify sorting of textiles, develop circular business models and otherwise increase the rate of innovation in the industry
- Tax relief in the form of Textil-ROT and lower VAT on second hand clothes to stimulate the second hand market and circular flows
- Establishing Sweden as a front runner by developing a product passport that establishes the parameters for work at EU level
- Creation of regular structured collaboration between the industry and political authorities through the establishment of a contact person for fashion and textile issues in the government. That would contribute to more efficient and effective work to transform the industry and position Sweden as a world leader in the future of the industry.

Final comments

As a result of extensive implementation of technology, widespread digitalisation, development of circular business models and a continued ability to inspire and engage, the fashion industry has great potential for a bright future. However, getting there requires extensive investments, political support and a desire to change from within the industry. With a strong creative sector, a strong focus on innovation and close proximity to decision-makers, Sweden is in a unique position to take on the leading role in the transformation currently going on in the industry. Through an open dialogue and collaboration between the industry and political stakeholders, we can enable Swedish fashion to establish itself as globally leading in the future of the industry focused on sustainability, digitisation and innovation. Such a position would not only promote the export dependent fashion industry, it would also strengthen Sweden's image as a front runner in sustainable innovation, entrepreneurship and creativity.

Definitions and scope

A number of different terms are used in this report to describe the situation in the Swedish fashion industry and the national economy in general. To avoid any confusion, a detailed description of what these terms mean and what they include is provided below.

The fashion industry

The fashion industry means companies registered in Sweden which are included in one of the following SNI codes: 13.200, 13.300, 14.110, 14.120, 14.130, 14.140, 14.190, 14.200, 14.310, 14.390, 15.110, 15.120, 15.200, 46.160, 46.420, 47.711, 47.712, 47.713, 47.714, 47.715, 47.721, 47.722, 47.912.

The fashion industry, in turn, can be divided into three different sub-industries: retail and e-commerce, wholesale and manufacturing. Retail and e-commerce (also referred to as retail) consists of the companies included in the SNI codes above beginning with 47. Wholesale consists of the companies listed in the SNI codes above beginning with 46. Manufacturing consists of the companies listed in the SNI codes above beginning with 1.

Comparison industries

A number of comparison industries are used in the report in order to position the fashion industry in relation to the rest of the economy. These industries are listed below, with the SNI codes they include being indicated in brackets: construction (41, 42, 43), hospitality (55, 56), media (58, 59, 60), entertainment (90, 91, 93).

Total sales

Total sales in a sector means the net sales of the companies included in the sector. The data is taken from the Statistics Sweden "Företagens Ekonomi" [structural business statistics] subdivision. In some cases, major Swedish fashion operators have a significant part of their sales abroad. Whether or not this is included in the figures in the report depends on the operator's corporate structure. For example, operators whose foreign sales are in companies registered abroad or in companies not included in the SNI codes above are not included.

Employment and employees

When the term "employees" is used, it refers to the average number of employees in the companies in question converted to full-time equivalents. The data comes from the Statistics Sweden "Företagens Ekonomi" subdivision. When the term "employed" is used, it refers to the number of people in paid work in November. The data comes from the Statistics Sweden "Registerbaserad Arbetsmarknadsstatistik" [labour statistics based on administrative sources] subdivision.

Number of companies

Two different sources are used when describing the number of companies. Data from the Statistics Sweden "Företagens Ekonomi" subdivision is used for longer time series in the number of active companies. Data from the Statistics Sweden "Företagsdatabasen" [business register] subdivision is used for shorter series in the number of companies started up and closed down.

Sales development

Part of the report describes the sales development regarding sales to consumers for a number of different industries. Caution must be exercised when comparing these sectors and figures with the others in the report since the definitions differ slightly. The data is taken from Handelsfakta.se and from the Statistics Sweden "Omsättning inom tjänstesektorn" [total sales in the service sector] subdivision

Exports

The Swedish fashion industry is successful internationally and Swedish fashion items can be found in many markets. However, the export statistics in this report only include goods that pass through Sweden's borders, either because they are manufactured in Sweden or because they pass through the country. That means that what is referred to as "merchanting", when a Swedish company manufactures goods abroad and then sells them to a third country, is not included. The figures are taken from the Statistics Sweden "Utrikeshandel" [foreign trade] subdivision and include the following so-called SPIN codes: 14.110, 14.120, 14.130, 14.140, 14.190, 14.200, 14.310, 14.390, 15.110, 15.120, 15.200.

Consumption

Consumption of fashion items refers to code "03 clothing and footwear" in what is referred to as the COICOP system. Information is taken from the Statistics Sweden "Nationalräkenskaperna" [national accounts] subdivision. Proportion of e-commerce means the proportion of retail sales in a sector taking place online. For a more complete definition, please see the Postnord E-barometer.

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- Markus Danell, Operational Manager, Wargön Innovation
- Harald Cavalli-Björkman, Chief Growth Officer, Renewcell
- Isobel Farmiloe, Strategy Director, Dazed Media
- Danica Kragic, Professor of Computer Science, Royal Institute of Technology, Stockholm
- Felicia Lundberg, Project Manager and CEO, XV Production
- Amber Jae Slooten, Co-Founder and Creative Director, The Fabricant
- Per Strömbäck, spokesperson for the industry organisation Dataspelsbranschen
- Jacob Wall, Executive Vice President Business Development, Axel Johnson AB
- Gustav Wessman, Chief Commercial Officer, Sellpy
- Nora Bavey, General Partner, Unconventional Ventures
- Suzan Hourieh Lindahl, CEO, The Social Few and Perspetivo

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