



Sustainability in the Shoe Market: Adidas on the move to sustainability

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BACHELOR'S December 2021

Degree Programme Bachelor's degree program in International Business

ABSTRACT

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Tampere University of Applied Sciences
Bachelor's in International Business

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Sustainability in the Shoe Market: Adidas on a move to Sustainability

Bachelor's thesis 38 pages December 2021

The objective of this thesis and research was to explore how sustainability plays a part in today's fashion world. This thesis was carried out to research, analyse, and evaluate the fast-fashion world and its production patterns, such as how Adidas is a fast fashion brand being a mass producer itself and yet taking crucial steps towards becoming sustainable. This was supposed to show how polluting the fashion world is. From therein stemmed the next question which gave another purpose to this research; are any firms responsible when it came to sustainable production. This research further found out that Adidas has been making improvements in their production methods and supply chain to reduce their carbon footprints as well as the emission of other greenhouse gases. Furthermore, they do this by recycling plastic waste into shoes. Establishing the objective to be clear cut, if Adidas was sustainable then how do they do this, are their attempts successful and through this research, we can suggest how other fashion shoe brands can also follow into Adidas' footprints and improve their production methods.

This research was specifically carried out for this thesis. The data was collected through qualitative research. It was mainly secondary as it came from Adidas's official website, critic articles, reviews, and environmentalist journals. All this data was collected, and results were found using qualitative content analysis.

The results found suggest that Adidas recently launched a campaign alongside Parley for the Oceans; this campaign showed that Adidas plans to collect plastic waste from the oceans and recycle them to create a yarn that then weaves into shoes. Making the shoes sustainable while also cleaning the oceans littered with plastic. They also have many other sustainable movements going on such as The Cotton Initiative, going 100% Virgin polyester free by 2024, and more of its kind. These results suggested that Adidas' was one of the leading sustainable shoe brands out there.

However, the findings also suggested that these moves, though sustainable, were not enough if Adidas' was still also making shoes out of completely unrecycled materials. This undoes the whole effect of the sustainable production process. In conclusion, Adidas' is setting an example for other shoe brands, and they should be following this example, but Adidas also has a long way to go.

Key words: objectives, purpose, adidas, campaign, initiative, sustainable, shoes, brands, fashion

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1 INTRODUCTION

Here, the thesis examines how the shoe business is making progress toward long-term environmental sustainability. As a result, Adidas is being hailed as one of the world's most environmentally friendly firms. All the study in this thesis will be conducted in the context of ecologically friendly shoe manufacturing practises. In a nutshell, we explore what sustainability is, how Adidas practises it, and whether this is a game-changer for the fast-fashion business. In addition, this thesis will show how other organisations might follow suit.

When it comes to sustainability, the Merriam-Webster dictionary defines it as: pertaining to or being an approach to collecting or using resources such that the resource does not become depleted or permanently destroyed (Merriam Webster, n.d.). To be considered sustainable in the footwear industry, a company must employ non-depleting and recyclable materials, adhere to a bio-based supply chain, respect for human and animal rights, and use recyclable manufacturing processes.

To put it simply, Adidas is paving the way for an entirely new age of shoe innovation. To keep their focus on this objective, Adidas acknowledges both the current state of the world and their own involvement in it. Because of the current state of the globe, many of us may feel disappointed and question our abilities to make a difference right now. There are many other names for the problems we face on our planet: climate change, pollution, garbage in the water, etc. Port will be the theme for 2020. Adidas is trying to change the perception of the shoe business from one of depletion to one of sustainability by manufacturing shoes of the same quality but without the same environmental impact.

Adidas seems to be leading the pack when compared to Nike, Reebok, and Puma when it comes to ecologically friendly branding. Their refusal to completely recycle or construct their shoes in a completely sustainable manner cannot be disputed. This has sparked debate among environmentalists, which has fuelled the need for more research and analysis in this field.

We will dive into this thesis keeping some criterion in mind which are

- Adidas' motives for going green
- Their targets and campaigns
- Innovative spurs
- How sustainable are their shoes and the sustainable materials they use?
- Their impact in the Sustainable shoe market
- The underlying criticism
- Final analysis

Adidas would be the primary focus of our thesis and we would compare the brand to other well-known shoemakers. The company's efforts can be environmentally friendly that can undo the damage caused by decades' numerous of careless shoe manufacture.

2 THESIS TOPIC, OBJECTIVES AND THEORETICAL CONCEPTS

2.1 Thesis Topic

This thesis is titled "Sustainability in the Shoe Market: Adidas on a Move to Sustainability" and it focuses on researching the broad topic of sustainable fashion that has been on a high rise in recent years. While sustainability itself is a broad topic this research paper focuses on the sustainable shoe market while also micro focusing on Adidas, one of the most dominant brands for shoes as well as a gameplayer striving towards sustainability in the shoe market. This thesis concentrates on the objectives, strategy, and success rate of Adidas as a sustainable shoe producer. Sustainability in our time and age is a very progressing and dire topic which is why when it comes to sustainability economic activity should be taken highly into account. Current fashion-consumption practices result in large amounts of textile waste, most of which is incinerated, landfilled, or exported to developing countries (Kirsi Niinimäki 2020). One way of which is to study and research the fashion industry that's manufacturing millions of products if not more. Which leads us to questioning if they are making their brands sustainable or we are just being fed corporate lies? This environmental impact being created, and the carbon footprints of the fashion industry have an imminent impact on our future generations and question of whether there will even be a future with the ignorance we are living in. which is why putting forward this study and research has become a need for us.

2.2 Thesis Objective and Purpose

The underlying objective behind this thesis was to establish whether big fashion firms are greenwashing the minds of their consumers or making a change in the world. So many questions could be answered with the right type of research and data and that's exactly what this thesis established. What're their goals? What drives them towards sustainability? What's their market plan? Who are their copartners in this campaign? And finally, the epitome of this thesis, is it making any real change in the environment, or is it all just a plain façade created to attract the niche market of environmentalists and Adidas posing as a sustainable brand?

This thesis is based on what kinds of campaigns Adidas came up with, how are they benefitting the world, and if other firms can adopt them too or just choose not to.

This thesis focused on 3 important objectives:

- What is sustainability and how is the shoe market performing in sustainable market?
- What is Adidas' role in the sustainable shoe market and their campaigns.
- Are Adidas' shoes sustainable and are their sustainable shoes making a difference for the environment.

This thesis took a deep look into the subjective of sustainability itself while also focusing on the fashion world. Adidas as one of the highly sustainable brands became the focus of this study being conducted. The purpose of this research was to know and explore how the shoe market is making its way towards sustainable fashion and what's Adidas' role in it. Furthermore, this research evaluates its impacts on the environment and the sustainability of resources.

2.2.1 Research Questions

In relevance to the purpose of the research there are four questions being identified.

- 1. Is Adidas sustainable in the shoe market?
- 2. What are their campaigns and work strategy?
- 3. Are they greenwashing the consumers?
- 4. Is their approach benefitting the environment?

2.3 Concepts and Theories

One of the concepts behind this thesis is whether world plastic waste is reduced by Adidas' move towards sustainability. While Adidas is working hard to change their ethics and change their strategies is the pollution being reduced or does the recycling produce even more gases. As sustainability is defined as of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged (Webster n.d.). It so goes that the question of

an underlying "if" was too big to ignore. As far as Adidas is concerned with sustainability there is news flying everywhere all the time about the brand going plant-based, using 100% recycled polyester, etc. In this case, this research was needed to explore if they are doing it right and if so, then why are other brands not following in their footsteps?

The underlying theory behind this research was to further explore the campaigns Adidas designs and their methods of sustainability. It explores the sustainability of resources, workers, packaging, shoemaking, plastic, and the environment. As Adidas puts it, making quality products is just as important as waste reduction, upholding decent labour, and health and safety standards, refining production methods, innovating recycled materials, and activating communities to raise awareness of plastic waste. It's about the whole sustainable picture, not only what you see on the shelves(Port, the adidas sustainability story – Leading the change 2020).

3 WORKING METHODS AND DATA

Mainly qualitative research was conducted in this thesis to answer all the questions that this thesis was created on. The data collected is qualitative and secondary in nature. analysing a symptom, facts, and educational events in the field; compile a hypothesis related to the concepts and principles of education based on information and data that occur in the field. (J. (. Creswell n.d.). This data was collected from Adidas' website itself, various articles, critic-based opinions, and previous research that were carried out to look at the change Adidas' created in their shoe market. Qualitative data is exploratory in nature and the questions raised in this thesis are exploring the impacts, effects, actions, and motivations of Adidas behind sustainable shoes. The qualitative research method's biggest strength is the various sources that back it up which is why this thesis is based on facts and establish a true purpose and result. In this method, qualitative observation takes place which becomes of the essence when such environmental issue is concerned. Qualitative data also creates a narrative that explores all nooks of the research rather than just a few aspects. There are theoretical aspects as well as an interpretive aspect to this research. The final report of a qualitative study has a flexible structure or framework. The perspective used in this study is inductive style, focuses on individual meanings, and translates the complexity of a problem. (J. Creswell 2020)

The methodology used is to go through many articles, reviews, press releases about their campaigns and initiatives and finally see how environmentalists see their actions and the impacts of those actions. After all this extensive research strategy, the research questions were answered thoroughly. The characteristics of this method were to obtain relevant data, carry out data analyses, bring in theoretical perspectives, interpret the data and finally give a holistic account. At this last stage you need to link research findings to hypotheses or research aim and objectives. (Dudovskiy 2018)

3.1 Thesis Process

This thesis is structured in such a manner that first, the reader gets the underlying ideas and questions behind this research. Then, a research plan and related essays were presented to support all the evidence. This process allows the reader to understand the thesis better and understand how the conclusions were reached. Furthermore, the research plan was presented to the supervisor after getting approval of research plan acceptance I started writing thesis based on my research plan. The thesis presents all kinds of data to back up the claims being made and make sure no bias is found within the content or the process this research was carried out on. The data collected is presented in an orderly manner with all the relevant references and analysed to find answers to the thesis questions. Finally, all the facts and figures presented conclude the findings and discuss the impacts of Adidas' actions and motives. The final chapter also include what more can be done on their part and how the fashion industry can also follow through.

4 ADIDAS MOTIVES FOR GOING GREEN

Adidas has been making athletic wear for more than half a century. It has been well-known in the sportswear and footwear sectors since its foundation in 1940. While selling athleisure footwear, Adidas also sponsors a variety of sports teams and organisations throughout the globe. Since they are a global organisation, they have been involved in the fast-fashion industry, and therefore, they have been mass-producing their products to a large extent. The most critical component is the pair of shoes. At least some of their subsidiaries are less ethical than the parent company's most popular brand, adidas. Adidas has been roundly criticised for this move, which has surprised a lot of people. They make a lot of money-making shoes, and although it's hard to see how they'll be able to keep making so much money while simultaneously being environmentally friendly, it's not an impossibility given their resources, power, and ability to affect supply chains and their target audience. Adidas is a sporting and footwear brand with a long history that dates to the 1940s. Founded in Europe, the company is the second-largest sportswear manufacturer in the world, behind Adidas. The Adidas Group owns a variety of different businesses, including the sportswear brand Adidas. According to the numbers, the company made €21.9 billion in sales in 2018. They have the financial and political power to have a significant impact on the environment. Burton with the rest of the crew (2019).

Their objective & mission statement regarding the sustainable movement gives the insight of their campaign and motives. They are a sports brand that is not only passionate about the games, but also for the grounds on which they are played, and their goal is to prevent pollution, global warming, and depletion from putting them in jeopardy. "...sport need a space to exist, a field to play on, an ocean to surf, or a mountain to climb – and these spaces are increasingly threatened by man-made challenges such as human rights violations, pollution, rising energy consumption, and waste." (Burton, 2019).

Their motives go as far as to change the whole industry of footwear to a more responsible and non-exploitive way of business. Martin Shank land, who is "At

Adidas, we don't just want to revolutionise how we do business, but how our industry conducts business," says the executive board member in charge of Global Operations." (Shankland, n.d.).

What inspires Adidas to focus on the long-term sustainability of their goods, even though they are aware of their impact on several industries? Aside from being a crucial component in most sports, footwear is also prone to abrasions and rips. It is because of this that most players wear out many pairs of shoes throughout their playoff run. Consequently, demand for shoes has expanded significantly more than the demand for other products that they produce.

Adidas shoes, as well as the company's overall sustainability, are driven by the duty Adidas recognises as the most dominant brand in their respective market-places and a globally recognised brand. As a result, they have a strong desire to preserve the earth's resources and natural resources, which is reflected in their passion for playing games. It's a volatile topic that's growing more and more common as buyers become more aware of the production practises utilised by these corporations and the negative environmental impacts they have. Making their shoes sustainable also derives from this.

Since Adidas is responsible as a brand, it only makes sense for the company to penetrate the niche market of environmentalists and responsible consumers.

4.1 Targets and Campaigns

It's no secret that Adidas has been working hard to make the switch to ecofriendly footwear for some time. The result has been a succession of objectives and projects throughout the years. Despite all of this, they are always tweaking their plans and establishing new ones for themselves to accomplish. And they cooperate with several organisations to provide with ground-breaking ideas in their specific area of expertise. In addition, Adidas has the benefit of being referred to as the sustainability leader in the shoe sector, as well as the capacity to tap into the niche market for ecologically responsible and stylish footwear. For starters, Adidas has a pattern efficiency of 95 percent, which results in only a 5 percent waste output in the production of their shoes. Consequently, they can reduce their production waste. Since they are avoiding waste from occurring from the beginning of the production process, the pattern accuracy and efficiency levels are impressive. Regardless of whether the shoe itself is sustainable or not. They also have a long list of goals from the previous year. Trash diversion is their priority, and they hope to reduce landfill waste by 50%. As a result, Adidas was not only aiming to collect plastic waste, but also to drastically minimise the amount of waste that ended up in landfills.

Adidas also aims to eliminate all hazardous chemicals from its production processes by 2020, i.e., to utilise only environmentally safe input chemicals in all its operations. In addition, they worked closely with their suppliers to reduce the quantity of harmful pollutants generated over the course of their production. Instead of merely focusing on cutting down on pollution in their own production, they also sought out suppliers that were committed to decreasing their carbon footprints. Since not only did the firm attempt to produce ecologically friendly shoes, but they also guaranteed that the supply chain was equally environmentally conscientious, this is a game changer.

Adidas has also made the switch to eco-friendly cotton, using only materials sourced from sustainable sources. At the time, their initiative went under the moniker "Better Cotton Initiative" (BCI). It is the goal of the Better Cotton Initiative (BCI) to make sure that all cotton is 100% sustainable (Burton, 2019). Also, Adidas was the first company to publish a sustainability report, earning them recognition from the Dow Jones Sustainability Index for their efforts (DJSI). Since its inception in 1999, we've been a part of the Dow Jones Sustainability Index (DJSI). The subject of 2020 will be port.

While Adidas is known for their sportswear, they also present themselves as an organisation that can have a beneficial impact on the world via sport. With initiatives like the (BCI), They have also demonstrated that they can make a change in the fashion industry through the Leather Working Group and the Fair Labour Association. We've also been a founding member of game-changing efforts including the Better Cotton Initiative, the Leather Working Group, and the United

States Fair Labour Association. Port (2020) is a fictional character created by the author.



Picture 1 Better Cotton initiative (Port, Sina. 2020. the Adidas sustainability story leading the change)

Adidas aspires to raise the bar by ensuring that sustainability does not remain a marketing specialty, but rather becomes a force for change on a far wider scale. An example of this would be a situation in which supply chains, the product itself, and all the enterprise's procedures are all aligned with the goal of long-term profitability. Producing high-quality items is equally as important as reducing garbage, maintaining fair working conditions and standards of health and safety, refining manufacturing processes, developing new recycled materials, and mobilising communities to raise awareness about plastic waste pollution. It is critical to analyse the big picture of sustainability rather than simply what is currently available on the marketplace. Author Port (2020) has developed a fictitious persona to convey his or her message.

Collaborations with new platforms such as Parley network and Fashion for good, according to the organisation, have resulted in their most productive initiatives to date. They also like the concept of establishing material challenges, such as adidas FUTURECRAFT, which is now in the works. The Reebok Forever Float

Ride Grow and the Loop are two of the most popular shoes available on the market today. Author Port (2020) has developed a fictitious persona to convey his or her message.



Picture 2 Future Craft (Port, Sina. 2020. the Adidas sustainability story leading the change)

Their most successful endeavour was their objective of lowering water waste by 20% by 2020, which they accomplished a year early. For the sake of sustainability, this shows how they operate their business in accordance with a distinct management style. Especially true in the shoe sector, where not only is the shoe their most prominent product, and the one that wears and tears the most during athletic events of varied significance, such as the World Cup.

With the objective of removing all virgin polyester by 2021, adidas has become the first company in the world to accomplish so. For their use of leather, they've also been heavily criticised, which has spurred them to develop a plant-based substitute. However, even though these efforts and objectives are set for the future, they are the first of their kind to be applied in the fast fashion industry, which adidas is a part of in certain ways Until now, Adidas has never utilized more than 60% recycled polyester in any of its production. In 2021, that will change, adidas

has committed to using 100% recycled polyester in their goods by the year 2024. Adidas has teamed up with other companies to create eco-friendly running shoes made from recycled materials and plant-based leather this year as part of a joint effort to help the environment. It is adidas's goal to achieve worldwide climate neutrality by 2050, as well as climate neutrality across its supply chain, in conjunction with its suppliers. Sustainable Development Goals for 2021, 2021, Adidas

Adidas, on the other hand, plans to expand its vegan product offerings in the future. Due to their commitment to sustainability, they no longer utilise plastics or animal products to make their shoes. Adidas released vegan versions of classics like the Stan Smith in 2020, and they quickly became one of the company's most popular items. With the help of the animal rights organisation "Vier Pfoten," adidas has pledged to eradicate the use of fur in their products. Sustainable Development Goals for 2021, 2021, Adidas

For the most part, Adidas' environmental initiatives revolve upon the company's footwear designs. That's not all, though; they want to expand the definition of sustainability to include their whole industry.

5 METHODOLOGIES AND INNOVATIONS

5.1 Innovative spurs

For Adidas, the goal of making a positive impact on the future of the shoe business has been a top priority. Not only have they had an impact on the whole business, but the 2018 Australian Fashion Report gave them an A for environmental ethics as well. The 2018 Australian Fashion Report gave Adidas an A- for their ethical business practises (Burton, 2019). As part of the "Sustainable Apparel Coalition," they are also a member. All of these plaudits provide them an edge in the industry and prove their effect on the long-term market for their goods.

Recently, they've produced new sustainable shoe items outside of their collaboration with Parley for the Oceans. As a result of this collaboration, Adidas is estimated to have produced more than 17 million pairs of shoes made from ocean plastic debris. To save money, they use recycled plastic bottles instead of virgin polyester. One of the numerous discoveries that had never been dreamed of before was this conversion from plastic bottles to yarn and subsequently shoes.



Picture 3 Sustainability (Latham N.Y./Herzogenaurach Germany January 14,2020 Primaloft Inc and Adidas)

"Adidas teamed with the environmental non-profit Parley for the Oceans in 2015." What did they want to achieve? To turn marine pollution into athletic apparel. They've also made surprising improvements. (Morgan, 2020). The process of this sustainable shoes starts by Parley and other partners collecting Plastic waste from coastal regions. The waste was sent to Adidas' processing plant where the plant crushes, washes and dehydrates the waste. Then the plastic flakes are dried and cooled. From there, Adidas melts the pellets to make a filament, which is then spun into Ocean Plastic, a type of polyester yarn. Ocean Plastic is used by Adidas to create the upper side of shoes and apparel such as jerseys. Every item in the Parley collection is made up of at least 75% marine debris that has been intercepted. They also meet Adidas' other sneakers' exact performance and comfort requirements. Recycled polyester utilises less water and chemicals, contributing to the reduction of plastic pollution. (Morgan, 2020).



Picture 4 Sustainability & Recycling (Can Future Material Innovations Solve Sustainability issues)

As far as they are concerned, this is just one of many innovations that they have made. More than 40% of their clothing is now made from recycled polyester. Virgin polyester will no longer be used in their goods by 2024.

Additionally, they have the power to make their own shoes. Adidas aims to recycle their own sneakers to produce new ones. These shoes are referred to as "Futurecraft loops." Detailed instructions for using the three-loop method with these shoes are provided. Even shoes that have already been repurposed are part of the plan here.

The Recycled loop is the first and most critical loop in this method. To complete the circle, they are devoted to making shoes out of recycled materials, as we have previously discussed. In 2020, the debut of Prime blue and Prime green was also acknowledged. 50% of the yarn in Prime blue is manufactured from Parley Ocean Plastic, an eco-friendly, high-performance alternative to traditional synthetics. Some of our most popular performance items, such as the Ultra boost 21, utilise it, as do members of some of the most successful sports teams in the world, such as the U.S. Olympic squad. Prime green is a line of high-performance fabrics with a minimum recycled content of 40% that will be utilised in our products from now on. In 2021 (Adidas), this will be the year.

The second loop in this strategy is a circular one, and its definition is as follows: Designed for re-creation. Innovation like this may be seen in the Future craft loop shoes This is a ground-breaking product from Adidas. Reusing something that had fulfilled its purpose but was now in need of a new one was the primary goal of this new creation. Rather than being thrown away as trash, they encouraged their customers to buy their shoes and then return them so that the shoes might be reused and recycled rather than being thrown away as trash. Beginning in April 2021, the new Ultra BOOST DNA LOOP will be available for purchase. High-performance running shoes like these may be returned to us and rebuilt into new ones as they wear out since they are made of one piece of material and don't need any glue. In 2021 (Adidas), this will be the year.

When it comes to making shoes, this last loop is all about minimising waste. Therefore, even if their product is thrown away, it will have the least impact on the environment. It is called the Regenerative loop and consists of the following stages: In the making of this product, all-natural components were used. With the help of Parley for the Oceans and Adidas' recycling programme, the company

has reached a new level of sustainability. With the help of Stella McCartney, they have re-imagined their design techniques.

It's not enough for Adidas to just sit back and rest on their laurels. They want to be carbon neutral by 2050 because of their production and design department advancements. However, we are not satisfied to rest on our laurels and look forward to the future. We must keep up the pressure to meet our goal of becoming carbon neutral by 2050. Adidas Until the year 2021, (Adidas).

6 HOW SUSTAINABLE ARE THEIR SHOES AND MATERIALS?

Adidas has made a commitment to using sustainable and recyclable materials and footwear. First time Adidas products will be manufactured from sustainable materials will be in 2021, when more than 60 percent are recycled polyester or sustainable cotton. In the company's view, this is a huge step forward in the elimination of plastic waste. Adidas intends to replace virgin polyester with recycled polyester beginning in 2024. It has solely utilised sustainably produced organic cotton as of 2018.

"Adidas is a brand that has been working with environmental non-profit Parley for the Oceans since 2015." The company claims it will produce 17 million pairs of shoes from recycled plastic waste gathered from beaches and coastal areas this year, up from more than 15 million pairs in 2020. Fibre 2 Fashion's News Desk released a piece titled "The Future of Fibre" in 2021.



Picture 5 Ecological friendly materials (Adidas. (2021). SUSTAINABILITY Materials)

Using solely ecologically friendly materials, Adidas has said that it would continue to do so in the future. This is what sets adidas apart from the competition. Additionally, they want to change the whole supply chain, including the manufacturing

process itself. Adidas has made steps to improve its supply chain, such as working with BCI, which has helped prevent supply chain issues.

Future craft, the company's first excellent pair of shoes, is a part of their current plan for footwear that will be available in 2021. In the future, Adidas will be able to recycle these shoes because of the innovation they incorporate. By refurbishing their shoes, you are also decreasing trash.

- Adidas is constantly increasing its vegan product line and rejects the usage of fur entirely. adidas is working with partners to develop plant-based leather, recycled cotton, and an especially eco-friendly running shoe.
 (Fibre2Fashion News Desk, 2021)
- It seeks to achieve worldwide climate neutrality by 2050, as well as across its whole supply chain, in collaboration with suppliers. (Fibre2Fashion News Desk, 2021)
- Green electricity is generated by company-owned solar systems with a current installed capacity of 1.4 megawatts, and the company has decreased its overall carbon footprint at its sites by more than 50% since 2015. (Fibre2Fashion News Desk, 2021)

Three independent pieces of evidence demonstrate that Adidas is a sustainable brand that uses sustainable resources in its manufacturing. Adidas, for starters, has a collection of fur-free apparel that is vegan. Second, they aim to achieve climate neutrality, and third, they want to minimise their carbon footprint. After studying their production processes, this component of my research focused on their materials, their fuel sources, and other ecologically beneficial practises.

Improved cotton, recycled polyester, recycled nylon, recycled rubber, algae-based EVA and TENCEL polyurethane (PU) and recycled thermoplastic polyurethane (RTP) are some of the most popular sustainable materials we utilise (TPU). Asics (Adidas, 2021)

Here, Adidas has provided a list of the materials they use in their production. It is possible to recycle some of these materials, and others may be reused as well. To put it another way, their shoes are less harmful to the environment, and they have an edge over other firms because of their labour, animal, and supply techniques.

They deliberately avoid using specific materials in their production. PFC comes first and foremost. Adidas currently claims that all their products, including their footwear, are 99 percent free of PFC. This claim dates to 2017. Leather and fur have been outlawed in all their products, and the company is dedicated to avoiding any kind of animal cruelty throughout the production process. PVC and phthalates-containing inks have also been phased out. Because of the harmful chemical effects and environmental imprint of PVC, they initiated this step. In addition, they are working to reduce the use of microfibres, which contaminate water and harm the ecology in the area.

This thesis paper had a tough time investigating the prohibition on materials and its purposes, but it did bring to light their shoe production practises and their total brand value.

7 IMPACT IN THE LOCAL SHOE MARKET

For a very long time, Adidas has had a huge impact on the shoe business. As one of the world's most enduring business giants, they have been on an epic journey from the birth of their firm. Their supply chains, production practises, environmental impact, and community engagement efforts have all seen considerable improvements in terms of sustainability. Because of CFCs' harmful effect on the environment and carbon footprint, Adidas banned the use of CFCs in 1989. As a supplier code of behaviour, they created the Workplace Standards in 1998. As a result of these standards, the corporation could rest certain that its operations would not jeopardise basic human and labour rights. At around the same time, attempts were made to reduce the amount of specific chemicals used in the company's production processes. The Restricted Substances Policy was the name given to this set of rules.

They've always had a unique approach to sustainability in their business practises, and they've influenced other companies like Nike, a direct rival, to follow suit with similar or different sustainability measures. Our facility in Scheinfeld, Germany, received the first EMAS environmental management system certification in the industry. When it comes to the shoe market, Adidas has been a major player for a long time, and these accolades show that they've recognised their work.

Since 2001, Adidas has "released a sustainability report every year, which can be seen online." To date, adidas is the only company that has achieved this level of transparency. Further environmental protection laws were established in 2002, which pushed other firms to follow suit and apply the new environmental standards as well. The introduction of adidas' Environmental, Health and Safety Guidelines, as well as the Guide to Best Environmental Practice, has been dubbed "the most important environmental milestone of the year" by the company. These comprehensive and detailed requirements for suppliers include guidelines for chemical storage, handling, and disposal, as well as criteria for wastewater treatment and effluents. Among other things, we were the first company in our industry to prohibit six high-risk and hazardous chemicals from our manufacturing facilities

as part of this effort. Since the guidelines were announced in September, a number of clothing and sportswear firms have asked permission to apply our regulations to their own suppliers. Adidas Until the year 2021, (Adidas)

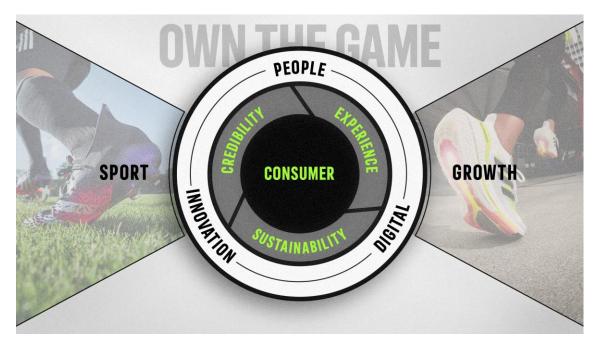
As a supplier-brand caucus for the first time in 2010, we worked as the main member of an Indonesian trade union movement on the question of trade union rights at work. In Jakarta, Indonesia, an agreement was reached and signed in June 2011. Labour rights in Indonesia have never been the same since the agreement was signed. Adidas (Adidas) is predicting that the year 2021 (Adidas) will be the year that Consequently, Adidas has been a driving force in the bulk of environmental initiatives. This is especially true for the shoe business, where adidas has a significant presence.

Adidas has again set the norm for footwear innovation with the launching of the Element soul shoe in 2013. The Element Voyager shoe was released in the summer of 2013 only a few months after the Element Soul shoe made its debut in the fall/winter 2012 season. There is just a 5% waste rate with the Element Voyager's 95 percent pattern efficiency. The Element Voyager sneaker is made from environmentally friendly materials in every aspect. Low-waste procedures, which are cutting-edge, are being used to produce our products in a more environmentally friendly way. Recycled rubber and recycled plastic are also used in the manufacture of every adidas Sport Performance shoe introduced in 2013. In 2021 (Adidas), this will be the year. Adidas and Parley for the Oceans collaborated on one of the first sustainable footwear strategies around the same time. At the United Nations Climate Change Conference (COP21) in December, Adidas and Parley for the Oceans will unveil a new footwear invention, the 3D-printed Ocean Plastic shoe midsole. In 2021 (Adidas), this will be the year.

This year, Adidas released the world's first ever recyclable shoes, marking yet another key milestone in the shoe business. adidas has shown its dedication to minimising plastic waste once again with the launch of Future craft. For the first time ever, a running shoe has been manufactured that is fully recyclable. As of January 2019, it has been in testing mode. It is anticipated that the market will open in 2021 . adidas recycles plastic waste from the beaches and coastal areas all over the globe to make more than 11 million pairs of shoes per year. This is a

substantial gain when it was compared to the five million in 2018 and the one million in 2017. Adidas has set the year 2021 as the deadline for "unlocking the promise of a cyclical future," according to the company's vision. "Green shoes" refer to footwear made from recycled and recyclable materials. Because the shoes they manufactured could be recycled, they were able to keep rubbish under control and prevent it from happening again.

Adidas will unveil its five-year strategic plan, called "Own the game," in 2021. This plan emphasises sustainability as a key component of the entire approach. Sustainability is an important part of our new five-year strategy, "Own the Game," which we recently released. Asics (Adidas, 2021).



Picture 6 Own the Game (Adidas. (2021). Sustainability History)

7.1 Awards and Recognitions for Sustainable efforts

- Adidas, ranked No. 3 in global sales in the Apparel/Accessories category in Forbes World's Largest Public Companies list. (Pamela N. Danziger, 2019)
- Adidas made the choice after seeing initial success with recyclable plastic footwear. Its commitment has increased from one million pairs generated

- in 2017 to five million pairs in 2018 and an estimated eleven million pairs this year. (Pamela N. Danziger, 2019)
- Nike continues to "do it" when it comes to sustainable fabric selections, but its intentions aren't quite as aggressive as Adidas. (Pamela N. Danziger, 2019)
- Adidas was included in the Dow Jones Sustainability Indices (DJSI) for the 20th year in a row in September 2019, evaluating the sustainability performance of the largest 2,500 firms listed in the Dow Jones Global Total Stock Market Index. (Adidas, 2020)
- In the annual Green Supply Chain Corporate Information Transparency Index, the company was ranked second in the textiles industry in 2019. (CITI) (Adidas, 2020)
- In the Know the Chain review in 2018, adidas was ranked top out of 44 clothing and footwear brands. (Adidas, 2020).

Adidas has been recognised with several honours and awards throughout the years. With their newest plan, they are on the brink of creating history by replacing virgin polyester with recycled polyester by 2024. They have gone above and above in terms of sustainability. For the first time ever, adidas is launching an initiative that is completely unique in the sportswear industry. Environmentalists and sustainability organisations alike are eagerly awaiting this huge leap forward in the sustainable shoe industry.

7.1.1 Sustainability history of Adidas

❖ 1989: They have banned the use of chlorofluorocarbons (CFCs) in all of their products and manufacturing processes.

4 1998

- Adidas created its first supplier code of conduct, which is today known as Workplace Standards..
- Addids adopted a concise and detailed Restricted Substances
 Policy
- Adidas' Scheinfeld, Germany, factory was the first in the industry to be certified under the EMAS environmental management system.

 Adidas became a founding member of the Fair Labor Association (FLA) in 1999, signalling the start of their formal Stakeholder Engagement strategy.

4 2000

- For the first time, adidas was selected for inclusion in the Dow Jones Sustainability Indices (DJSI), which was well received by investors that consider sustainability in their portfolios. adidas has been listed in the DJSI on a regular basis since its inception.
- The first Sustainability Report was released by the company. adidas is still the only firm in the athletic goods market that provides an annual Sustainability update.

\$ 2002

 The adidas Environmental, Health & Safety Guidelines, as well as the Guide to Best Environmental Practices, were released this year, making it a big year for the environment..

\$ 2004

- The Better Cotton Initiative (BCI), of which Adidas was a founding member, was founded this year.
- Adidas has made virtualization a major focus. It allows for a reduction in the number of physical samples needed to design and sell new items..
- Adidas also championed the implementation of Human Resources
 Management Systems in major footwear manufacturers in that
 year, which was a significant step toward better supply chain
 management.

4 2006

Adidas joined the Fair Factories Clearinghouse, an industry-leading compliance data-sharing network co-founded by Reebok, as well as the Leather Working Group, which was instrumental in establishing an audit procedure for all of their leather suppliers.

4 2007

- Because adidas voluntarily revealed its global supplier factory list this year, it may be regarded as the Year of Transparency.
- While not the first in the industry to do so, adidas lifted the bar for the whole industry a few years later when, as the Official Sponsor,

Licensee, and Outfitter of the 2010 FIFA World Cup South AfricaTM, adidas revealed the list of factories engaged in the creation of World Cup products.

They wanted to improve the sustainability qualities of the brand's worldwide product portfolio after establishing its product sustainability programme. The adidas Grün collection, one of the first adidas sustainable product lines, was one of the initial outputs of this new programme.

\$ 2008

 Their auditing programme grew in breadth when they began conducting specific environmental audits at the locations of their suppliers, which followed a strict environmental audit process.

4 2010

- When they started conducting particular environmental audits at the locations of their suppliers, which followed a rigid environmental audit methodology, their auditing programme grew in scope.
- Adidas began working with Better Work, an innovative cooperation programme between the International Labor Organization (ILO) and the International Finance Corporation (IFC) to promote both labour standards compliance and global supply chain competitiveness..
- o They joined the Sustainable Apparel Coalition as well (SAC).
- Adidas unveiled its Environmental Strategy, demonstrating the company's continuous commitment to incorporating environmental sustainability into all goods, processes, and services in order to reduce adidas' environmental footprint dramatically.

4 2011

- 25 adidas suppliers in eight countries A self-assessment questionnaire was completed by workers from the Philippines, Indonesia, Mexico, Brazil, Vietnam, China, El Salvador, and Thailand.
- Adidas was a founding member of the Zero Discharge of Hazardous Chemicals (ZDHC) Initiative, which was established to encourage industry-wide changes in chemical management practises.

4 2012

 Dry Dye was introduced as a breakthrough technology that removes the need for water in the dyeing process, as well as the

- use of chemicals. Within a year, we were able to produce 1 million yards of Dry Dye cloth!
- Adizero Primeknit made a big splash on the market when they
 presented a new way of creating items that didn't use any textile
 waste.

4 2013

- Following the success of the Element Soul shoe in the fall/winter of 2012, the Element Voyager shoe was released in the summer of 2013. The Element Voyager has 95 percent pattern efficiency and only 5 percent waste.
- Sustainable components, such as environmentally preferable materials, are used in new Adidas Sport Performance footwear for 2013.

4 2015

- Adidas announces a collaboration with Parley for the Oceans in April.
- In June, adidas will unveil a new footwear concept created from this partnership, the first footwear constructed of Ocean Plastic, in the vicinity of the United Nations Headquarters.
- Adidas showcased 'Sport Infinity,' a research project led by adidas and sponsored by the European Commission, which brought together business and academic specialists. The goal of that project was to create a waste-free, adhesive-free material that could be recycled indefinitely.
- In December, on COP21, adidas and Parley for the Oceans unveil a novel footwear innovation, the 3D-printed Ocean Plastic shoe midsole, to demonstrate strategic sustainability for the industry.

4 2016

- Adidas unveils its 2020 Sustainability Strategy.
- Adidas removes plastic shopping bags from its stores in April: As
 of April, plastic shopping bags have been withdrawn from the
 company's own retail stores throughout the world.

4 2017

 Adidas is expected to produce over one million pairs of shoes made with Parley Ocean Plastic and is encouraging its global community to participate in the adidas x Parley Run for the Oceans, a global movement that will take place for the first time on World Oceans Day 2017 to raise awareness about the state of the oceans.

4 2018

- O Run for the Oceans is back: this was an incredible initiative taken by them. For the second year in a row, adidas and Parley for the Oceans are uniting their global communities to fight marine plastic pollution by hosting over 12 major running events across six important locations, including weekly running activities with 50 adidas Runners communities throughout the world.
- Adidas manufactures almost 5 million pairs of shoes with Parley
 Ocean Plastic.
- 100% of the cotton they sourced was 'sustainable cotton,' which implies cotton sourced according to the Better Cotton Initiative's standards or organic cotton.

4 2019

- With the introduction of Future craft, Adidas reaffirms its commitment to reducing plastic waste.
- Adidas produced more than 11 million pairs of shoes utilising recycled plastic garbage from beaches and coastal areas, making Loop the first entirely recyclable running shoe. Compared to five million in 2018 and one million in 2017, this is a significant increase.

4 2021

Adidas unveiled their new five-year strategy, 'Own the Game,'
which includes a sustainability initiative and the introduction of entirely recyclable sneakers." (All the events are sourced from
Adidas' official website)
(Adidas, 2021)

8 THE CRITICIZM OVER ADIDAS

Conversely, even though Adidas has shown to be an everlasting juggernaut among its competitors, it is often the object of scathing criticism. There are several factors to examine while looking at the sustainability of these shoes. For example, it is important to look at Adidas' own methods, rules, and practices. Rather than a one-sided thesis object, a well-planned research study may provide more insightful discoveries, and this may be done by careful preparation.

The most severe criticism levelled against Adidas is that they are seen as a quick fashion corporation. Although they surpass their rivals in sustainability, such as Nike, they remain in the same category as polluting and less ecologically sensitive companies. The term "rapid fashion" is used to describe a method of designing, manufacturing, and marketing clothes that creates many garments in a short time. To make apparel more accessible to a wider audience, the company relies on low-quality materials and trend copying. Having a consumption-based society is bad for the environment and bad for people's mental and physical health. By Sharps and colleagues (2019). Impakter shines a light on Adidas by comparing it to Nike in a brilliant contrast. To put it another way, this shows how Adidas contributes greatly to environmental damage as a fast fashion firm that mass produces.

In addition, Adidas produces 60% of their clothing and footwear from recycled polyester, but the remaining 40% is a statistic that should not be taken lightly. Polyethylene terephthalate (PET) accounts for 40 percent of all polyester waste in the seas and in landfills. They can't be sure that if they don't eliminate virgin polyester by 2024, it won't be too little, too late.

If they continue to use polyester, Adidas has said that they plan to phase out the use of virgin polyester. Adidas and the whole fashion industry faced substantial consequences because of this. More than 900 million Adidas goods are sold each year, and the company's president, Eric Liedtke, says that polyester accounts for over half of the materials utilized. P. N. Danziger is the author (Pamela N. Danziger, 2019). Polyester-based textiles, if not in the long run, at the very least in

the short term rely heavily on the company's president of global brands. It will be fascinating to see whether their innovation of removing polyester fully works.

The industry in which they operate and are a part is being held responsible, despite their innovative approaches. Even though Adidas and other fast fashion brands are taking positive steps to reduce their environmental impact, environmentalists are pitted against them. According to a paper published in the journal Sustainability, the worldwide apparel and footwear industry is anticipated to rise by 81 percent by 2030, reaching 102 million tons, putting unprecedented strain on the planet's resources. "Fashion firms are not providing sustainable solutions at a fast enough pace" to minimize the negative environmental and social consequences of the ever-expanding fashion sector, according to the report. N. P. Danziger is the author (Pamela N. Danziger, 2019).

Even if Adidas' environmental performance has improved since 2017, the fastgrowing fashion industry still has a long way to go before it can be considered ecologically and socially responsible, according to the Pulse index.

9 DISCUSSION

Numerous concerns were brought to light throughout our study and discussions on themes such as Fast fashion, shoe companies within it, and Adidas as a foundation brand for our sustainability thesis.

Similarly, Adidas emerged as the market leader in terms of sustainability and social responsibility. While making progress toward sustainability, they're also being known as the most sustainable business for their devotion to manufacturing recyclable shoes and doing away with polyester from their goods. There are several environmental disadvantages of growing cotton, which is regarded one of the world's most toxic plants to farm. As a result, Adidas launched the Better Cotton Initiative. For example, they have improved their supply chain, making it more environmentally friendly while also improving their sourcing practices and increasing their competitive edge in the usage of cotton.

Although Adidas is a fast fashion company, they have a reputation for being open and honest about their attempts to overcome the negative impacts of their own business model. Companies in the fast fashion industry are notorious for polluting the environment, using substandard materials, and employing environmentally unfriendly production practices such as high carbon emissions, inhumane working conditions, excessive water consumption, and the use of animals in the process of making the products they sell (such as fur). With the help of the Fair Labor Association (BCI), the growth of their vegan product line, and a goal to become carbon neutral by 2025, Adidas is aiming to make a difference.

Table 1 Adidas and Nike Comparison (Sharpes, E. (2021, June 13). Adidas and Nike, Two Sportswear Giants and Rivals on Sustainability: Who Wins?)

| UN SDGs selected by Adidas | UN SDGs selected by Nike |
|-------------------------------------|------------------------------------|
| SDG 3: Good Health and Well-being | SDG 3: Good Health and Well-being |
| SDG 6: Clean Water and Sanitation | SDG 5: Gender Equality |
| SDG 8: Decent Work and Economic | SDG 8: Decent Work and Economic |
| Growth | Growth |
| SDG 10: Reduced Inequalities within | SDG 12: Responsible consumption |
| and among countries | and production |
| SDG 12: Responsible consumption | SDG 13: Climate Action |
| and production | SDG 17: Partnerships for the Goals |
| SDG 13: Climate Action | |
| SDG 14: Life Below Water | |
| SDG 17: Partnerships for the Goals | |

There is strong evidence that Adidas' Sustainable Development Goals (SDGs) are being met, compared to Nike's, according to Adidas. They don't seem to be just staging environmental awareness protests. Instead, they have had a positive impact on the world. It has been working to reduce the amount of virgin plastic that is added to the world's supply while simultaneously making contributions to the cleaning of plastic that has already been used. Adidas also boosted the number of goods made from recycled ocean plastic from seven million in 2018 to more than 14 million in 2019. It has been shown that (Sharpes and colleagues, 2021)

Compared to other fast fashion companies, we can observe how Adidas has changed its public image in the last several years. Despite its reputation as a fast-fashion brand, Adidas has taken these steps to show its commitment to environmental stewardship. Although they produce a big number of items, they have unique business practises. Sports, where hundreds of shoe pairs are submitted to rigorous testing, is a viable entertainment medium with a lengthy shelf life because of this.

Adidas does not seem to be a particularly damaging brand, either, according to the shoe industry's studies and the polluting actions of the corporations involved. It's clear from the timeline supplied above that they've been taking measures to be more environmentally friendly for a long time and are always inventing newer, more modified ideas and production processes.

So, because of our thesis research and conclusions, we have raised awareness of the fast fashion industry, the sustainable fashion sector, the shoe market, and Adidas as a game changer. We learnt about the various environmental effects of our over consumption. In the absence of consumer interest, no matter how damaging fast fashion may be, the industry will continue to exist. There will be no supply if demand is insufficient. The conclusion is that everyone of us, as individual consumers, is complicit in the devastation of the ecology. In addition, Nike and other fast-fashion companies may profit from these advancements and become more ecologically responsible because of these improvements. When it comes to competing with Adidas, Nike has an advantage because of the company's partnership with the German giant.

The outcome of this thesis thus shows that:

- The fast fashion world has a plethora of unexplored roads to sustainability.
- Their counteraction to environmental damage is not great enough to undo their harmful practices.
- Adidas is greatly illuminating the road to sustainability for many brands.
- The shoe market can become very sustainable soon as more and more brands not only adopt these innovations but also make recyclable shoes themselves

REFERENCES

- Creswell, J.W. 2020. Univertas Medan Area. 21 november.

 https://lp2m.uma.ac.id/qualitative-research-methods-objectives-charac-teristics-and-strategies/
- Creswell, J.W, (2013). n.d. "Research Design.Thousand Oaks California: SAGE publications."
- Dudovskiy, John. 2018. "The Ultimate Guide to Writing a Dissertation in Business Studies: A Step-by-Step Assistance." In the Ultimate Guide to Writing a Dissertation in Business Studies: A Step-by-Step Assistance, by John Dudovskiy.
- Kirsi Niinimäki, Greg Peters, Helena Dahlbo, Patsy Perry, Timo Rissanen & Alison Gwilt. 2020. "The environmental price of fast fashion." Nature Reviews Earth & Environment volume.
- Port, Sina. 2020. Gameplan. june. https://www.gameplan-a.com/2020/06/the-adidas-sustainability-story-leading-the-change/
- Port, Sina. 2020. THE ADIDAS SUSTAINABILITY STORY LEADING THE CHANGE. Game plan A.
- Webster, Merriam. n.d. "Dictionary." https://www.merriam-webster.com/diction-ary/sustainable.
- Wolf, Jared. 2021. "Better brands: Is Adidas sustainable?"
- Adidas | Sustainable Goals for 2021. (2021). Retrieved from Luxiders: https://luxiders.com/adidas-sustainable-goals/
- Adidas. (2020). Awards and Recognitions. Retrieved from Adidas Group:

 https://www.adidas-group.com/en/sustainability/managing-sustainability/awards-recognition/
- Adidas. (2021). Sustainability History. Retrieved from Adidas group:

 https://www.adidas-group.com/en/sustainability/managing-sustainability/sustainability-history/
- Adidas. (2021). SUSTAINABILITY Materials. Retrieved from Adidas Group: https://www.adidas-group.com/en/sustainability/products/materials/
- Adidas. (2021, march). THE THREE LOOP STRATEGY: ADIDAS' PLAN TO
 HELP END PLASTIC WASTE. Retrieved from Adidas:
 https://www.adidas.com/us/blog/643269-the-three-loop-strategy-adidas-plan-to-help-end-plastic-waste

- Adidas Challenges The Fashion Industry In Sustainability, Pledging Only Recycled Plastic By 2024. (n.d.). Retrieved from Forbes.
- Burton, O. (2019). The green hub. Retrieved from http://thegreenhubonline.com/2019/09/18/how-ethical-and-sustainable-are-your-favourite-sportswear-brands/
- Fibre2Fashion News Desk. (2021, January 4). Over 60% of Adidas products to be sustainable in 2021. Retrieved from Fibre2fashion:

 https://www.fibre2fashion.com/news/apparel-news/over-60-of-adidas-products-to-be-sustainable-in-2021-271693-newsdetails.htm/
- Merriam Webster. (n.d.). Retrieved from https://www.merriam-webster.com/dictionary/sustainable/
- Morgan, C. (2020). How Adidas is turning plastic ocean waste into sneakers and sportswear. Retrieved from Business insider:

 https://www.businessinsider.com/adidas-sneakers-plastic-bottles-ocean-waste-recycle-pollution-2019-8/
- Pamela N. Danziger. (2019). Adidas Challenges The Fashion Industry In Sustainability, Pledging Only Recycled Plastic By 2024. Retrieved from Forbes: https://www.forbes.com/sites/pamdanziger/2019/07/18/adidas-challenges-the-fashion-industry-in-sustainability-pledging-only-recycled-plastic-by-2024/?sh=5c4d95981049/

Port, S. (2020). The adidas sustainability story.

Shankland, M. (n.d.). Twitter.

Sharpes, E. (2021, June 13). Adidas and Nike, Two Sportswear Giants and Rivals on Sustainability: Who Wins? Retrieved from Impakter:

https://impakter.com/adidas-nike-sportswear-giants-sustainability/

Latham N.Y./Herzogenaurach Germany January 14,2020 Primaloft Inc and Adidas . Retrieved from Textile World

https://www.textileworld.com/textile-world/knitting-apparel/2020/01/adidas-to-in-troduce-first-insulation-products-developed-by-primaloft-x-parley-for-the-oceans/

Author Christopher Synder Can the Future Material innovations solve sustainability issues? Retrieved from hausvonden

https://www.hausvoneden.com/sustainability/material-innovation-sustainability/