



3 TOP APPAREL CORPORATIONS APPROACH TO SUSTAINABILITY

Kacso, Hannah N
University of Florida
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Abstract

The fashion industry is global and is worth trillions of dollars. For such a large industry, it is important to see what top companies- global leader- are doing in regard to social, environmental, and economic sustainability. Inditex, Moët Hennessy Louis Vuitton SE, and adidas AG all have some similar approaches towards environmental sustainability, but with some notable key differences that separate them from each other. Inditex alone has over 7,000 store locations, leaving a large environmental footprint that can be reduced. There are key differences in online shopping versus shopping at brick-and-mortar stores as well, both from the environmental impact of the consumer and the retailer. Not all consumers value sustainability, and many who do value more about how shopping sustainably makes them feel about themselves versus the actual environmental impact many consumers say they care about.

Defining sustainability within the industry is a challenge, as what is “sustainable” depends on who is defining it. Inditex has a heavy focus on social sustainability, as that is what their consumers tend to care about most, whereas Moët Hennessy Louis Vuitton SE has a largely environmental focus – in regard to the built environment, as well as even water pollution, but many of their consumers care about the ethical treatment of animals used for leather products, as well as the chemical treatment of those products. When it comes to reporting on sustainability, although not required, all three companies choose to report, even if the data does not always favor them. However, the standards they use for each of their reports vary wildly, and there are many sustainability reporting agencies that it becomes hard to tell what is sustainability, and what is green-washing. Through the use of sustainability reports from the companies, as well as other online resources and journal articles, these three top companies are evaluated, and the search for what sustainable actually means is continued.

Why Fashion?

The fashion industry is worth \$2.4 trillion and has experienced an annual growth of 5.5% over the past decade. ^[1] If ranked amongst the GDP of individual countries, the fashion industry would be the world's 7th largest economy. The success of the industry is dependent on a variety of factors, namely the production of raw materials, the manufacturing of goods, retail sales, and corporate activities. Although one industry, the work done that keeps it running is across many separate but interdependent sectors. The world population is ever increasing, and the percentage growth of the middle class coincides with the increasing rate of consumption. For such a large, global industry, sustainability is a necessary consideration. There are various problems within the fashion industry regarding social, environmental and economic sustainability. The implication of

Social Sustainability

- Ethics of Labor Production
- Community Impact

Environmental Sustainability

- Supply Chain
- Energy/Water Consumption
- Carbon Emissions
- Waste production/diversion

Economic Sustainability

- Who can afford to produce sustainably?
- Who can afford to buy sustainable?

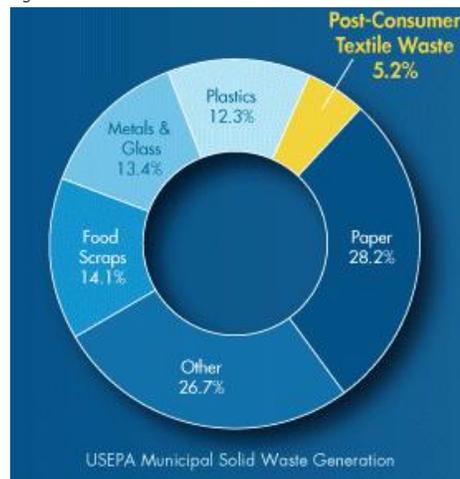


the fashion industry on the built environment is enormous, as the various sectors responsible for the industry intersect with aspects of the built environment. Global apparel companies easily have thousands of retail stores, corporate offices, factories and supplies that they work with, each using energy, water, producing waste, and taking up a space that has been built. The biggest 100 malls in the world take up 414,338,745 sq ft, or 14.86 sq mi. In the United States alone, there are 107,773

shopping malls. ^[2] Our world has hundreds of thousands of malls, each requiring land space, energy and water to keep it running, and each producing a mass amount of waste. If every store owned by Inditex, one fashion company, left their lights on overnight, in one night all the stores would have cumulatively wasted about 9 years of energy. ^[3] Each store in each mall is filled up with products, and each requiring resources for production. It takes 713 gallons of water to make a single, plain T-shirt, ^[4] and each apparel store sells hundreds.

Consider textile waste. In the United States alone, 82 pounds of textiles are generated every year per resident – 25 billion pounds total annually. ^[5] Of that 82 pounds per person, 85% or 70 pounds, goes directly to landfills. 21 billion pounds of post-consumer textile waste is generated every year, accounting for more than 5.2% of all municipal solid waste generated in the United States. Only 15%, or 12

Figure 1 Solid Waste in the United States^[5]



pounds, are diverted annually and get donated or recycled. Between 1999 and 2009, post-consumer textile waste grew by 40%, and diversion rates were only increased by 2%. Beyond considering the excessive waste of both products and space in our landfills, this is also a large problem as many textiles are produced with man-made, plastic derivative fibers – the kinds that will not decompose in our landfills for hundreds, if not thousands, of years. The fashion industry is only one part of the contribution to overall textile waste, but it is not an insignificant contribution.

The fashion industry, like any, has negative contributions towards global sustainability – especially regarding social and environmental sustainability. Countless times companies have been caught in scandals regarding “sweatshops” – defined by the US Department of Labor as a factory that violates 2 or more labor laws ^[6] – including but not limited to unfair wages,

unreasonable hours, child labor, lack of benefits and poor working conditions. The US Department of Labor only has purview over factories within the United States, and many retailers have moved manufacturing overseas where less strict labor laws allow for cheaper production. That is not to say that sweatshops do not occur in the United States – in 2000 there were over 11,000 sweatshops in the United States.^[7] However, only 2% of apparel sold today in the United States is actually produced in the United States,^[8] the rest is produced overseas, primarily in China, Bangladesh, India and Vietnam. Minimum wage in Bangladesh is \$0.13 cents an hour, or about \$65 USD per month. On April 24 2013, the five-story Rana Plaza building in Bangladesh collapsed, killing around 1,134 people, and injuring another 2,500.^[8] The building housed shops and banks on the lower floors, with clothing factories and apartments on the upper levels. TV footage showed cracks in the building on April 23rd, with a building evacuation immediately following. The owner, Sohel Rana, told the media that the building was safe, and if workers did not return the next day, they would withhold a month's wage from them. During rush hour the following morning, the building collapsed. There were over 3,000 garment workers in the building when it collapsed. The building was never intended for factory use, however there were 4 factories producing clothing at the time of the collapse. Workers injured in the collapse did not even know who they were manufacturing for. In August of 2017, Sohel Rana was sentenced to a maximum of three years in prison.

So in the end, the question is begged, for a \$2.4 trillion industry, what are top apparel companies doing about sustainability?

Top 2017 Apparel Brands

Which brands are considered the “top” is somewhat subjective. “Top” can be defined by profit margin, by brand value, or by what a consumer just happens to like the most. To consider

which brands to evaluate on the basis of sustainability, first the top brands must be chosen. To choose the “top” apparel brands, a method of brand ranking must be determined. There are various consulting agencies that evaluate brand strength, each using different methods of brand evaluation. Brand Finance, an independent branded business valuation and strategy consultancy, releases annual reports on topics from various industries as well as countries themselves. They use the International Organization for Standardization (ISO) 10688 requirements for monetary brand evaluation. The methodology for their brand valuation is using the Royalty Relief Method, where a brand strength index on a 100 scale based on investment, equity and performance are multiplied by the royalty rate as well as the revenue to come up with the final brand value. [9] This method is used for 2 reasons, as it can be done based on publicly available financial information, and it is favored by both tax authorities and courts because brand values are calculated by reference to documented, third-party transactions. For the reasons of following an ISO standard as well as referencing documented third-party transactions, Brand Finance’s “top” list was used for choosing the companies to evaluate based on sustainability.

Brand Finance publishes an annual report entitled “Apparel 50”, referencing the top valued global brands and their growth. In the 2017 report, the top 5 brands were Nike, H&M, Zara, Louis Vuitton and adidas. Zara, Louis Vuitton, and adidas were the companies with the highest level of growth within the top 5. The 3 brands also represent different types of fashion within the industry, allowing for a more comprehensive industry analysis. Zara is a fast, fashion, affordable brand headquartered in Spain, Louis Vuitton is a

Figure 2 Brand Finance 2017 Apparel Rankings [9]



luxury brand headquartered in France, and adidas is a sports/activewear brand headquartered in Germany. The parent companies of these 3 brands were chosen for the sustainability evaluation as corporate is the decision maker for individual brands. The parent company of Zara is Inditex, the parent company of Louis Vuitton is Moët Hennessy Louis Vuitton SE, better known as LVMH, and the parent company of adidas is adidas AG (stylized with the lowercase “a”).

Inditex

Figure 3 Inditex Logo [10]



Company Profile

Inditex was founded in 1963 and currently owns 8 brands: Zara, Zara Home, Pull&Bear, Massimo Dutti, Bershka, Stradivarius, Oysho, and Uterqüe. As of 2018, Inditex has 7,475 retail stores in 96 markets, as well as an online presence in 49 markets.^[10] To make their products, Inditex works with 1,805 suppliers and 6,959 factories, with 59% of factories located in proximity to headquarters in Spain. Nearly 19,000 garments are produced for each of the 50,000 products, amounting to over 948 million garments per year, with shipments to stores twice per week.^[3] Inditex operates on the business model of fast-fashion – most companies pre-commit a large percentage of production for the upcoming fashion season where Inditex relies on real time data from all their stores, factories, suppliers and designers to put new products in stores weekly. In just 5 days, new styles are prototyped, and since nearly 60% of the manufacturing is local, lead-times are shorted. In Zara stores, a garment can go from design, to production, to the closet of a consumer in as little as 15 days.^[3] The only form of advertising Inditex uses is to pay celebrities to wear Inditex products, otherwise relying on prime location and word of mouth to bring consumers in. Inditex publishes annual reports that are inclusive of their yearly reviews, priorities, and sustainable strategies.

Social Sustainability

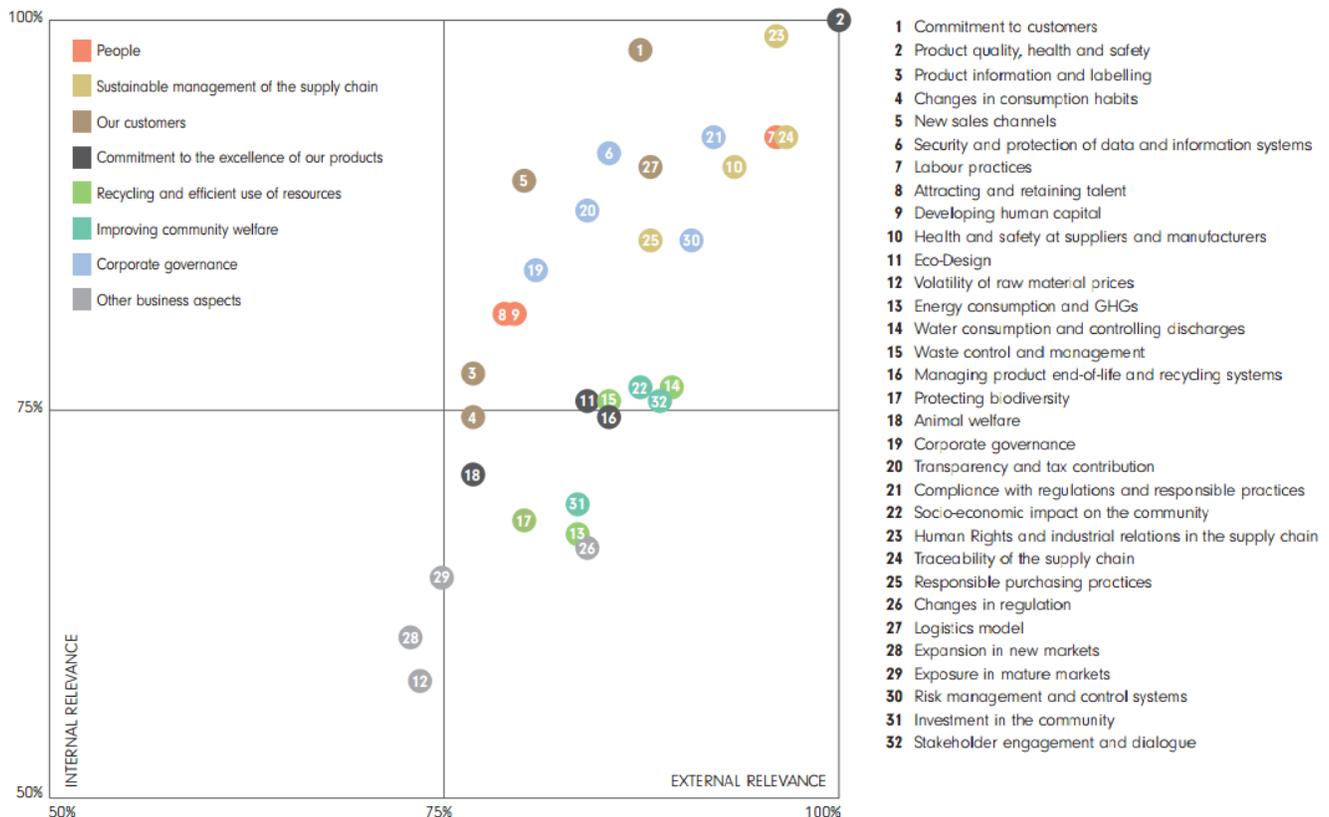
Figure 4 Inditex Annual Report 2016 Sustainability Strategy ^[11]

Inditex aims to offer fashion that complies with the highest environmental, health and safety standards. Sustainability underpins all our business decisions based on respect and promotion of Human Rights, transparency and ongoing dialogue with our stakeholders.

Inditex regards the use of a materiality analysis as one of the most important tools in identifying priorities, and using it ensures that the sustainability strategy they establish is in line with the expectations of the corporation. In identifying topics and their boundaries, Inditex follows recommended guidelines from the Global Reporting Initiative (GRI) and Integrated Reporting Framework. With the aim of shaping the future of corporate reporting and compiling best practices, Inditex forms part of the Corporate Action Group for Reporting on the Sustainable Development Goals organized jointly by the UN Global Compact and the GRI. ^[11] The highest priorities identified within the materiality analysis include product quality, health and safety, human rights

Figure 5 Inditex Materiality Analysis ^[11]

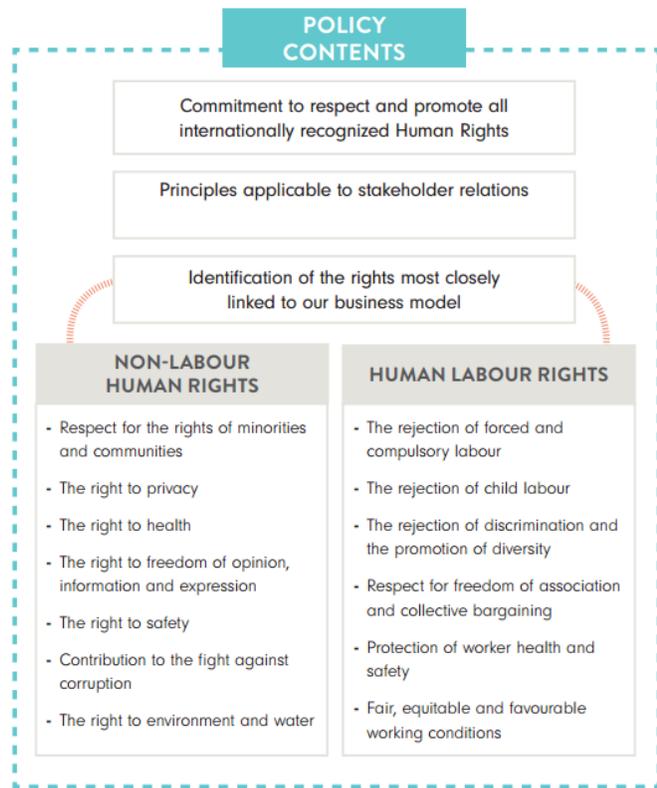
MATERIALITY MATRIX



and industrial relations to the supply chain, customer commitment, labor practices and traceability of the supply chain. The lowest priorities include volatility of raw material prices, expansion in new markets, and exposure in new markets. By category, highest priorities are customers, sustainable management of the supply chain, and corporate governance. Recycling and efficient use of resources are mid-tier priorities, and general business aspects are of low priority. Consumers are often most concerned with the ethics surrounding the supply chain and worker treatment, and less so with the environmental impact of clothing.

In 2016, Inditex’s Board of Directors officially approved the Group’s Policy on Human Rights, using values from previously established guiding principles within the company as well as the UN Guiding Principles on Business and Human Rights. As a part of their strategy, they have Whistleblowing Channel, available to all employees and third parties of legitimate interest to speak out on grievances. Inditex conducts “Social Audits” throughout the entire supply chain, evaluating compliance

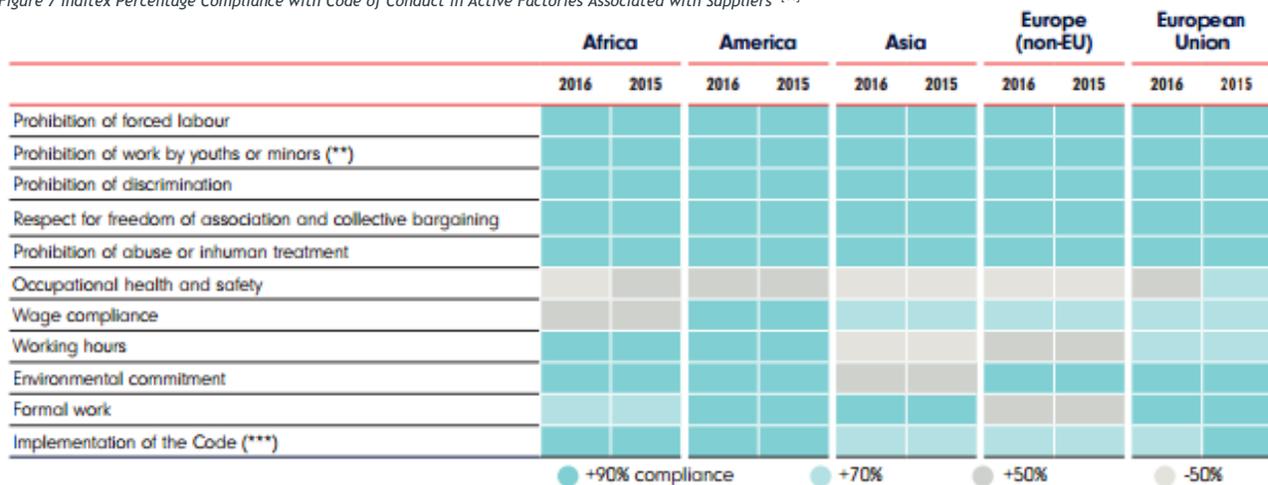
Figure 6 Inditex Human Rights Policy [11]



with every section from the Code of Conduct. If there are breaches in compliance to the code of conduct, a Corrective Action Plan is developed, and a follow up audit. If the corrective measures are verifiably implemented, suppliers receive a new rating, and if not, suppliers are rejected and no longer used.^[11]

Inditex invested 40 million euros (45.2 USD) in social programs in 2016 through community investment, commercial initiatives, and charitable gifts, an increase by 55% from 2014.^[11] 76% of the investment went to social initiatives that had UN Sustainable Development Goals as the main objective. Of the total investment, 40% went toward social welfare programs, including employment training and opportunities, community development programs, immigration integration programs, and clean water programs 27% of investment went to social and emergency relief programs, such as assistance for Syrian refugees in Turkey, African war torn countries and the 2016 Italian and Ecuadorian earthquakes. 16% went towards education such as rural school programs and for displaced victims of armed conflict.

Figure 7 Inditex Percentage Compliance with Code of Conduct in Active Factories Associated with Suppliers ^[11]



(*) Does not include factories rejected in 2016.
 (**) Includes the lack of suitable systems for checking the age of workers.
 (***) Includes the lack of suitable systems for registering and informing workers.

However, despite Inditex’ social commitment listed in the most recent annual report from 2016, in November of 2017 their largest brand, Zara, was center in controversy regarding factory workers wages. Customers in Turkey discovered handwritten notes in pockets of clothing, with the message reportedly being “I made this item you are going to buy, but I did not get paid for it”.^[13] Inditex had a contract with a third party manufacturer, Bravo Tekstil, in which Inditex paid in advance for production. In June of 2016, the owner of the manufacturing company disappeared, along with the money Inditex and other fashion corporations paid, without paying workers, who

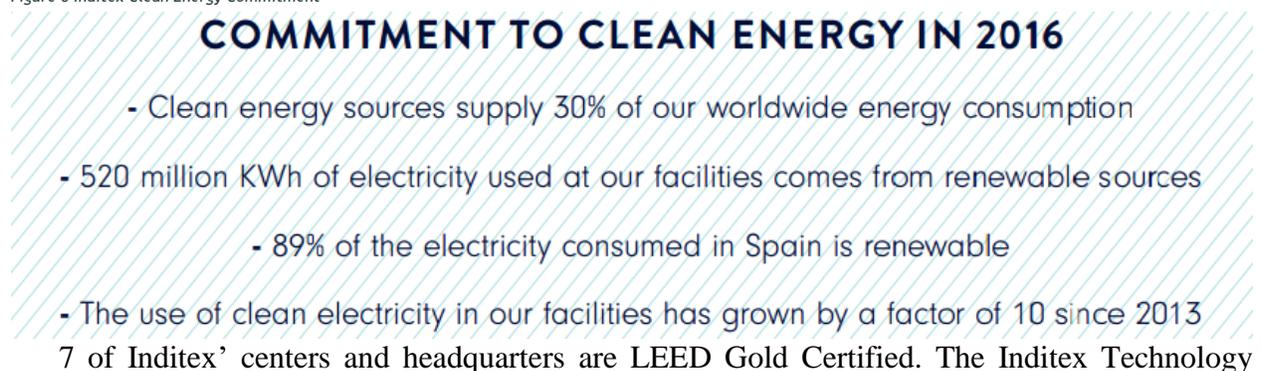
had already made the clothing. In a press release response following the controversy, a spokesperson said that “Inditex has met all of its contractual obligations to Bravo Tekstil”, which in a strict business sense was true. However, the clothes made by unpaid workers were still sold on Zara shelves and Inditex made profits from those items. After further criticisms, Inditex released a statement that they would be creating a hardship fund with the other fashion companies who utilized that manufacturer to cover unpaid wages, unused vacation, severance payments and notice indemnity for workers employed during the closure of the factory. Despite the factory closure being in June of 2016, as of April 2018, the fund still has not been created.

Sustainability and the Built Environment

Inditex’s 2020 Strategic Environmental Goals include: ^[11]

- Zero Discharge of Hazardous Chemicals in the supply chain,
- Zero Waste to Landfill Objective for waste produced by headquarters, logistic centers, stores and factories,
- Have all stores built or refurbished to meet an eco-efficient store standard,
- Manufacture with more sustainable fibers and employing best available production techniques, and
- Reduce emissions and promote a low-carbon economy

Figure 6 Inditex Clean Energy Commitment ^[11]



7 of Inditex’ centers and headquarters are LEED Gold Certified. The Inditex Technology Center in Spain is LEED Platinum Certified, as well as up to ISO 50001 (Energy Management)

Figure 7 Building Certifications for Inditex Headquarters, Centers and Stores in Europe [12]



As of 2016, 4,519 Inditex owned stores, or 71.6%, meet the criteria in the Eco-Efficient Store Manual. There are 8 stores globally currently in the process of LEED Certification, located in Miami, Paris, Oslo, Madrid, A Coruna, Rome and 2 in Barcelona. [11]

Figure 8 Building Certifications for Inditex Headquarters, Centers, and Stores Worldwide [12]



certified. The aim for retail stores is to reach an “eco-efficient standard”, where compared to a conventional store, electric consumption will be up to 20% less and water consumption will be up to 40% less. ^[11] Although overall lighting, electric, plumbing, construction materials and furniture measures are used to increase efficiency and reduce resource consumption, it is estimated that 40% of electricity consumption reduction comes from the installation of state-of-the-art HVAC systems. Inditex has a data processing center that monitors the retail stores, from stocks and purchases to the lighting, HVAC, air quality and energy demand, which can be regulated and controlled. In 2016, there was a 14% reduction in electric consumption per garment in logistic centers, headquarters and factories. Per garment released on the market, there was a reduction in GHG emissions from 548.39 gCO₂eq to 405.83 gCO₂eq and a reduction in water consumption from .98 m³ to .85 m³. When combined with the purchase of 520 million kWh of electricity from certified renewable sources, lead to a total reduction of 26% in GHG emissions. ^[11]

Inditex has a “Green to Pack” program in which security tags, hangers and boxes are reused and recycled. In 2016, 101.8 million hangers and 1 billion security tags were reused. ^[11] Boxes are used up to 5 times before they are recycled, and for Zara online, 100% of orders are shipped in recycled cardboard boxes, with 50% of that recycled cardboard coming from previous Zara boxes. 10% thinner plastic is used for clothing transportation, allowing denser packaging, which combined with truck loading optimization allowed for saving of 1.14 million kilometers in truck usage and eliminated associated emissions. ^[11] All furniture and paper products, including paper bags and labels are PEFC or FSC approved, though there is a “Paperless” initiative, where orders made online or by phone receive electronic receipts for orders.

Inditex wants to establish a circular economy, in which the “Right to Wear” sustainability philosophy ensures clothing is socially and environmentally sustainable. It starts with “closing the

loop” which collects used garments to be reused or recycled, with stations at nearly 400 Zara stores and almost 1000 stations on the streets of Spain, with hopes to continue introducing stations in other store brands and to expand the number of stations in the streets. In 2016, over 7,000 metric tons of clothing, shoes and accessories were collected. ^[11] There is research to use environmentally friendly textile materials, from organic cotton to using fibers that consume less water, energy and natural resources. Responsible manufacturing has the objective of incorporating the strictest and up-to-date legislation standards for health and safety. Sustainable clothing is branded for consumer awareness, sold in eco-efficient stores, and packaged under the “Green to Pack” program. The end goal is for clothing sold to be returned to Inditex for recycling, creating a circular economy.

Moët Hennessy Louis Vuitton SE

Company Profile

Figure 9 Moët Hennessy Louis Vuitton SE Logo



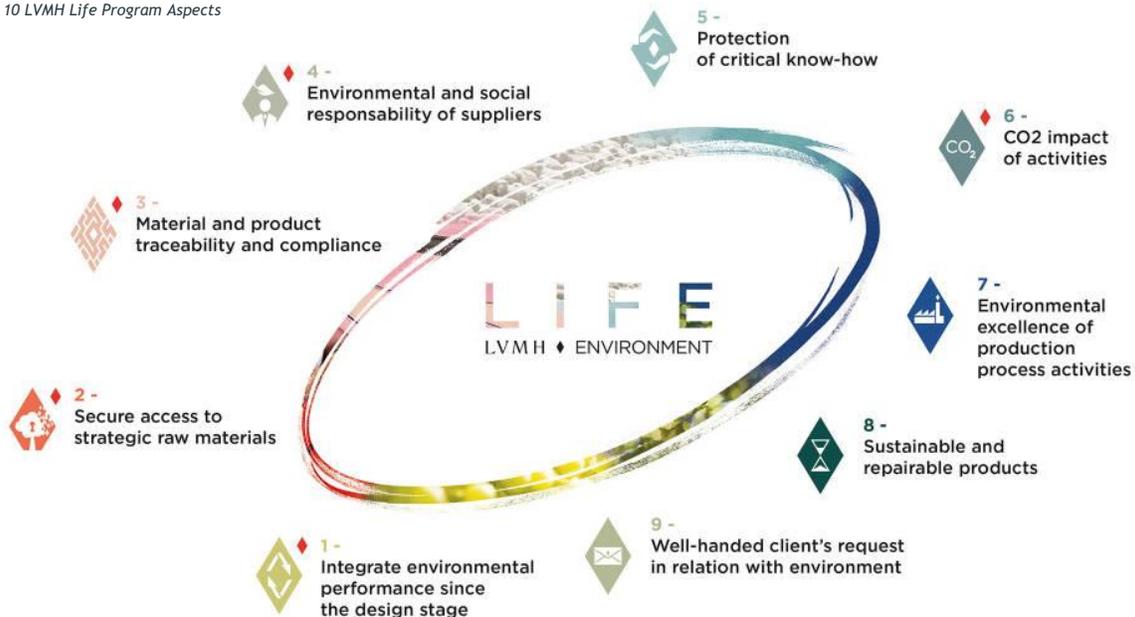
The corporation known as Moët Hennessy Louis Vuitton SE (LVMH) was founded in 1987, but of the individual brands it owns, the oldest dates to 1593. LVMH owns 70 different brands in 6 different sectors – Wines & Spirits, Fashion & Leather Goods, Perfumes & Cosmetics, Watches & Jewelry, Selective Retailing and Other Activities. ^[14] The “Other Activities” sector includes hotels, restaurants, news media, a radio station and a shipyard. The Fashion and Leather Goods group (FLGG) is made up of 16 brands: Berluti, Céline, Christian Dior, Edun, Emilio Pucci, Fendi, Givenchy, Kenzo, Loewe, Loro Piana, Louis Vuitton, Marc Jacobs, Moynat, Nicholas Kirkwood, RIMOWA, and Thomas Pink. There are 1,769 stores globally attributed to the FLGG.^[14] LVMH brands are considered luxury goods, which are separated from regular fashion through a variety of factors. The design of products are often iconic with a very narrow flagship product and few variations, the brand does not relocate manufacturing to lower cost countries but

stays in the original country, and the high price point both increases desirability and limits access to the brand. ^[16] Overall, fashion follows trends, where luxury transcends generations.

Sustainability

LVMH first established their Environment Department in 1992 and began publishing environmental reports in 2001. ^[15] They established carbon reporting for their brands in 2002. In 2012, LVMH launched LIFE (LBMH Initiatives for the Environment) program, and established

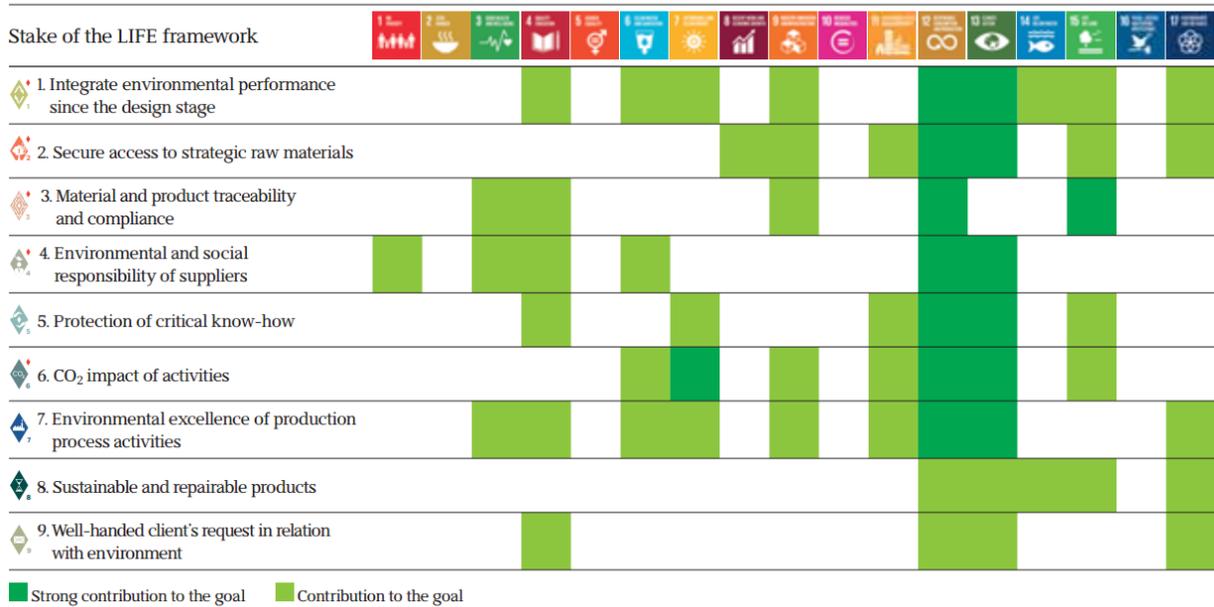
Figure 10 LVMH Life Program Aspects



LIFE 2020 goals in 2016. The LVMH 2016 Environmental Report states LIFE 2020 is based on four pillars – Product objective, Supply Chain objective, CO₂ objective, Site objective. Under product objective, in the entire lifecycle of a product, the goal is to improve the environmental performance. Under supply chain objective, the goal is to monitor traceability and conformity of raw materials, and apply the highest standards for 70% of procurement chains. Under CO₂ objective, the goal is to reduce carbon dioxide emissions by 25% by 2020. Under the site objective, energy efficiency is to be improved by 15%, and there is to be an overall improvement of 10% in environmental performance indicators, in at least one of water, energy, and waste. ^[17]

LVMH uses the Sustainable Development Goals as somewhat of a guideline for the initiatives created under each aspect of the LIFE program, with strong contributions towards goals 12 and 13, responsible consumption/production and climate action, but with little to no contributions towards goals 1, 2, 5, 10, and 16, no poverty, zero hunger, gender quality, reduced inequalities, and peace, justice and strong institutions, respectively. [17]

LIFE FRAMEWORK'S CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS (SDGs) Figure 11 LIFE Contributions to UN SDGs [17]



In 2015, LVMH created an internal carbon fund, where each brand contributes 15 Euros per tonne of carbon emissions, and fund money is used in projects designed to reduce carbon footprints within brands. As of 2016, LVMH was the only luxury brand to have a carbon fund of

BREAKDOWN OF DIRECT AND INDIRECT EMISSIONS PER YEAR (in CO₂ equivalent metric tonnes) Figure 12 LVMH CO₂ Emissions per Year, 2013-2016 [17]

	2016			2015			2014			2013		
	TOTAL	% of direct emissions	% of indirect emissions	TOTAL	% of direct emissions	% of indirect emissions	TOTAL	% of direct emissions	% of indirect emissions	TOTAL	% of direct emissions	% of indirect emissions
Fashion & Leather Goods	143,336	17	83	159,044	15	85	128,364	4	96	123,481	6	94

any kind, and projects totaled 6.7 million euros (7.6 USD), 1.7 million euro more than anticipated. [17] As a whole, in 2016 the environmental expenditure of LVMH 23.8 million euros (27 USD). For the FLGG, the biggest concerns regard store lighting and air condition, textile fibers

required for production, exotic leather, fur, tanning, packaging and transportation of product shipments. Only a handful of fashion brands have committed to using sustainable cotton. From 2015 to 2016, LVMH saw a 14% reduction in in-store energy consumption, 3% reduction in greenhouse gas emissions (298.366 metric tons CO₂ equivalent), 36% reduction

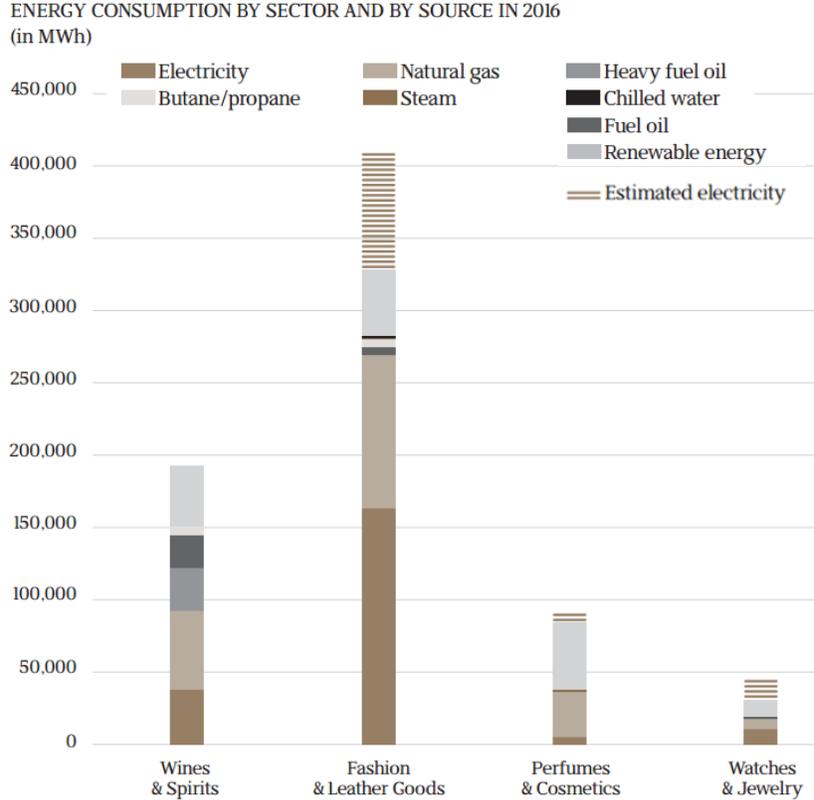


Figure 13 LVMH Energy Consumption by Group and Source [17]

in water consumption for agricultural production 4,506,022 m³, 2% reduction in water pollution (3,354 tons of COD (chemical oxygen demand), 3% reduction in waste produced (about 80,787 metric tons), and increase of 3% in packaging material used (about 206,071 metric tons). [17]

Many brands within LVMH have opted to follow the ISO 14001 environmental management certification which requires continual improvement of an organization's systems, setting it apart from many other certifications. When it comes to new construction, LVMH uses LEED, BREEAM, BBC, and French HQE certification standards, and even earned the first LEED EBOM Gold Warehouse in Europe in 2015. LVMH does not list all of their green buildings, but states that in the past 10 years, about 30 eco-friendly buildings have been built. However, LVMH's environmental report only covers 247 of 369 total sites. [17] 97% of production sites are covered,

but many industrial, logistics and administrative sites are not covered currently, although there are plans to gradually include them.

There is controversy regarding LVMH, as supposedly the company uses many toxic, harmful chemicals within their manufacturing process, especially in regards with preserving the natural leather in many of their products, which also raises the issue of leather being a slaughterhouse by-product. ^[19] It remains as one of LVMH' top concerns, and LVMH includes water pollution in their environmental reporting, noting a reduction of 3.2 metric tons in chemical oxygen demand after treatment (commonly used to quantify pollutants in water). ^[17] Although LVMH has separate reports for environmental sustainability and social responsibility, it is worth noting that LVMH social goals are to develop talent and skills, manage quality of life in the workplace, prevent discrimination, and to support local communities. Although the LVMH website offers to “read the 2016 social responsibility report here”, there is no link that follows and the last accessible social responsibility report is the 2014 report. LVMH did make the news in 2017, when they committed to stop using ultra-thin and underage models, and are also offering on-site therapists available during working time, ^[18] showing real work towards the commitment, despite there having been no reports made available in 4 years.

Adidas AG

Consumer Preferences

Previously known as Gebrüder Dassler Schuhfabrik (Dassler



Figure 14 adidas logo ^[20]

Brothers Shoe Factory), which was founded in 1924, the two Dassler brothers split in 1949 to form the two separate companies adidas and Puma. ^[20] Since 1949, adidas has been stylized with the lowercase “a”, and it currently the largest sportswear manufacturer in Europe, second in the world

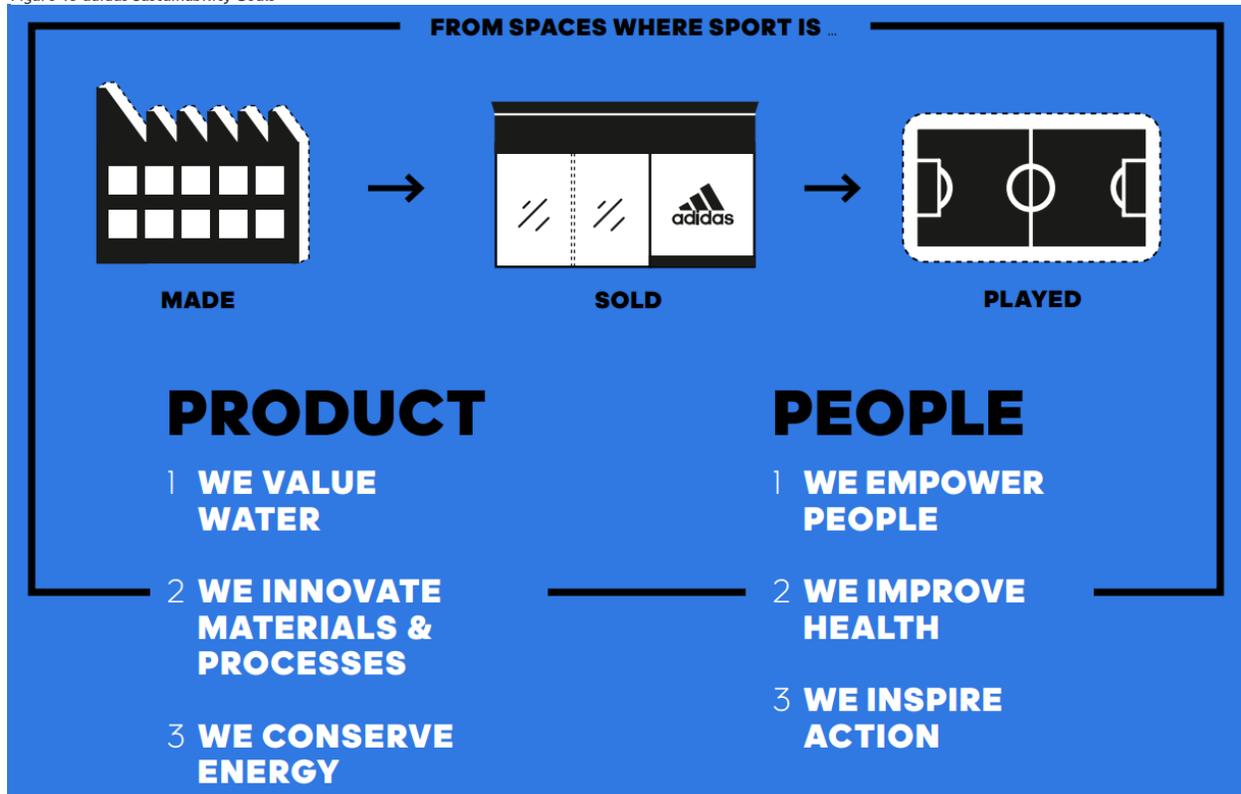
following Nike. adidas AG owns two brands, adidas and Reebok. adidas AG produces athletic wear products, ranging from clothing to shoes, with specialized products for various sports. adidas has sponsorship agreements with nearly 1400 individual athletes, over 70 national teams and over 300 club teams, and a variety of associations over 20 different kinds of sports. adidas also sponsors 60 music artists and provides the Official Match Ball in every FIFA World Cup since 1970. ^[20]

Sustainability

adidas began its sustainability journey in 1989, when they banned the use of CFCs in all of their products. ^[21] However the first Social & Environmental Affairs team was established in 1998, and began reporting and publishing its first Sustainability Report in 2001, and establishing a Green Company Program in 2008. adidas is a founding member of the Better Cotton Initiative, a not-for-profit organization dedicated to reducing the environmental impact of cotton production, improving livelihoods and economic development in cotton producing areas and improving commitment to and for Better Cotton throughout the supply chain, of which has 1264 members as of 2018. Despite of an original target of 60%, by the end of 2018 adidas is posed to source 100% of their cotton from sustainable sources. ^[22]

adidas currently publishes two sustainability reports, one “Sustainability Report” and one “Green Company Performance Analysis”, with the most recent sets being published in 2016. The Sustainability Report evaluates overall sustainability whereas the Green Company Performance Analysis evaluates the environmental footprint of administrative offices, facilities and distribution centers. In the Sustainability Report, both the sustainability of product and people are evaluated, each with goals set for 2020. Water 2020 goals include 20% savings at strategic suppliers, 50% savings at apparel material suppliers, and 35% savings per employee at adidas sites. ^[22] Vague goals include expanding waterless technologies and providing clean water access to communities’

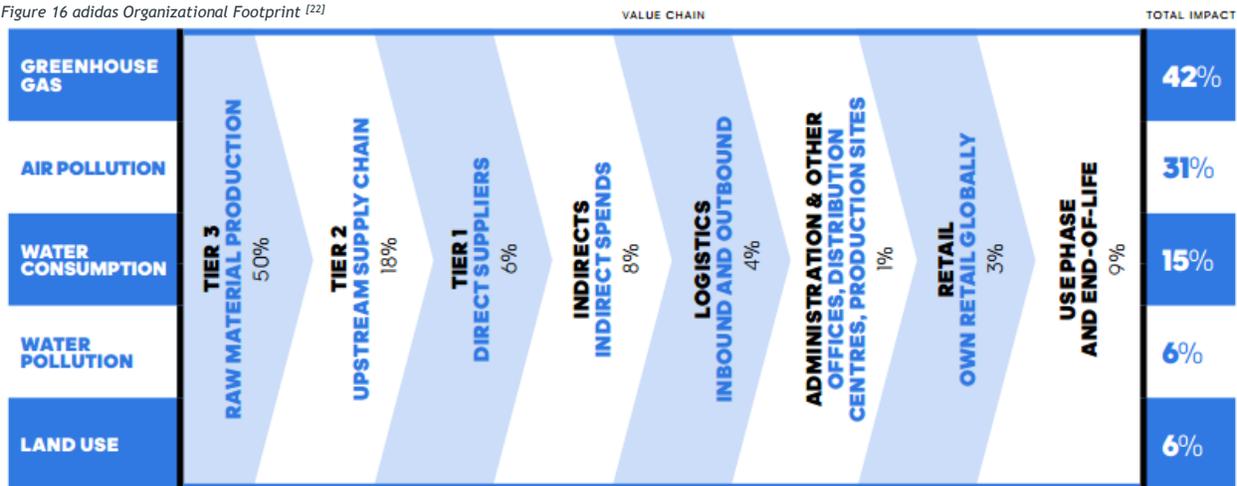
Figure 15 adidas Sustainability Goals ^[22]



adidas operates in. Material/Process goals include 20% waste reduction at strategic suppliers, 50% waste diversion for owner operations, and 75% paper reduction per employee at adidas site. An additional goal is phase out the use of virgin plastic, by using more recycled polyester in products and eliminating plastic bags in stores, as well as creating a new supply chain for Parley Ocean Plastic, which uses an avoid, intercept, and redesign strategy to end marine plastic pollution. Energy 2020 goals include 20% savings at strategic suppliers, 3% absolute annual reduction in Scope 1 and 2 CO₂ emissions at adidas sites, LEED certification for major new corporate construction, and expansion of the Integrated Management System to key sites. ^[22] People 2020 goals include expanding and refining both grievance systems and skill training programs for supply chain workers, championing diversity, and improving social and environmental compliance performance in suppliers and licensees. adidas also has “Green Teams”, volunteers for sustainability within adidas and their local communities, with “Blue Teams” focusing on oceans

added in 2016. adidas also runs the BOKS school program, to “build our kids success”, offering a before school exercise program for kids globally, helping them perform better in school and build a community of health. [25] Health 2020 goals include developing a global health management strategy for employees, using sport as a tool to teach values to youth, increasing BOKS school enrollment by 50% in targeted areas, and promoting grassroots football in China in joint efforts with China’s Ministry of Education. adidas has also partnered up a program called SOS Childrens’ Villages, resulting in 700 families and up to 30,000 people receiving access to fresh water on a daily basis. [22] Action 2020 goals are traditional business goals, innovative collaboration, rewarding employee commitment to company’s purpose, encouraging volunteering and help athletes be role models. adidas has also assessed their organizational footprint, with results contributing to the Integrated Performance Management program, noting only a 4% impact from

Figure 16 adidas Organizational Footprint [22]



adidas own sites.

What has been done to achieve the 2020 goals? Since 2014, water use has already been reduced by 22% to 95 liters/kg using “Right First Time” and water recycling techniques. 80% of wet processes across the global supply chain are disclosed, including hazardous chemical use and waste water discharges. Between 2008 and 2016, despite an increased water consumption in 2016, there has been a 23% reduction in water use per employee, only 11% away from the 2020 goal. In

2017, there is a goal to create one million pairs of shoes with Parley Ocean Plastic. adidas has also continuously done research to avoid using new plastic, leading to the innovation of a shoe prototype called Futurecraft Biofabric, the first performance shoe that is also 100% biodegradable through a fully natural process. ^[22] In 2016, 100% of plastic bags were phased out from adidas owned retail stores, eliminating the use of approximately 70 million plastic shopping bags annually. Even with paper, when the world's third largest pulp and paper producer, Asia Pulp & Paper, was found in 2012 to be illegally milling ramin, an internationally protected tree species, many companies dropped that company as their paper supplier, including adidas. ^[26]

The Green Company Performance Analysis talks specifically about adidas sites, from administrative offices to production facilities and distribution centers, with the 2016 scope including 62 corporate sites, of which 14 were added in 2016. ^[23] The 2016 goal of 3% net emission

Figure 17 adidas Key Performance Indicators - Target and Goals ^[23]

KPI	2020 Target	2016 Incremental Goal
ENERGY & CARBON	Reduce absolute CO2 Emissions by 3% annually (baseline 2015)	Reduce absolute CO2 Emissions by 3% annually
WATER	35% water savings per employee (baseline 2008)	23% accumulated by 2016
WASTE	50% diversion rate in owned operations	33% accumulated diversion rate in owned operations by 2016
	Reduce paper per employee by 75% (baseline 2008)	Reduce paper per employee by 50% accumulated by 2016
RETAIL	No Plastic Bags	No plastic bags
	Achieve LEED GOLD Certification for Flagship Stores	Achieve LEED GOLD Certification for Flagship Stores
SUSTAINABLE PROCESSES	Expand IMS to key sites	Achieve IMS Certification 2016 Add 1 key site to the IMS scope
	Achieve LEED Certification for new corporate sites	Achieve LEED Certification for new corporate sites

reduction when it comes to energy and carbon was surpassed with an achieved 11% reduction. Per employee, there was a 23% reduction in water consumption, between 2008 and 2016. When it comes to waste, adidas calls their progress “underperforming”, with issues regarding recycling

reporting, infrastructure and programs, with only 45% of sites having a tracking system so far. But when it comes to paper, their 2020 goal is a reduction of 75% paper consumption per employee, despite the introduction of paper based drinking straws and food packaging to avoid plastic use. A total of 49% reduction has been achieved since 2008, with 17% reduction in 2016 alone. [23]

Figure 18 adidas Environmental Targets and Results [23]

OVERVIEW OF TARGETS RESULTS IN 2016 PER TYPE OF SITE

TARGET FOLLOW-UP PER TYPE OF SITE	ENERGY SAVINGS MWh/m ²		CARBON SAVINGS t		WATER SAVINGS m ³ /person		HOUSEHOLD WASTE REDUCTION t/person		PAPER SAVING t/person	
	Target 2016	Result 2016	Target 2016	Result 2016	Target 2016	Result 2016	Target 2016	Result 2016	Target 2016	Result 2016
Administration offices	n.a.	-20%	-3%	-17%	-23%	-27%	-28%	-43%	-50%	-62%
Own production sites	n.a.	-16%	-3%	5%	-23%	-9%	-28%	-20%	-50%	-43%
Distribution centres	n.a.	-15%	-3%	-11%	-23%	-27%	-28%	-9%	-50%	-17%
Total	n.a.	-15%	-3%	-11%	-23%	-23%	-28%	-28%	-50%	-49%

NOTE: We achieve carbon and water targets and the internal target for waste efficiency.

Green: annual linear target achieved

Orange: annual linear target not achieved

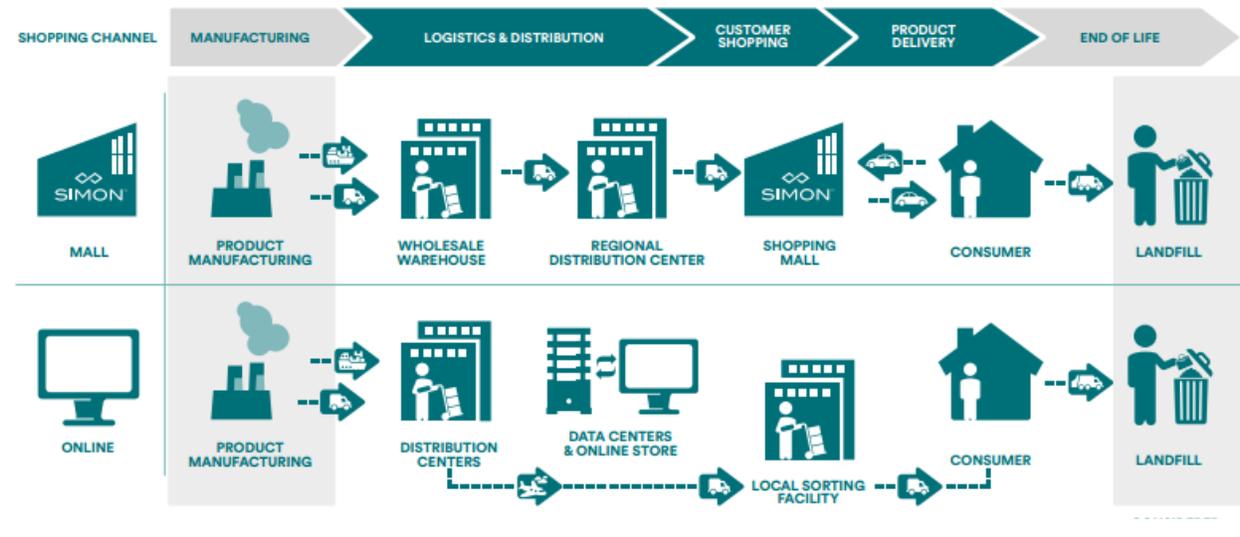
adidas is committed to LEED certifying all key corporate construction projects, as well as achieving LEED Gold at new flagship stores. For new store construction, adidas is embedding 5 “sustainability fundamentals”, including guidance on lighting, HVAC, building automation, toxics and water consumption. The Integrated Management System uses ISO 50001:2011 (Energy Management) and ISO14001:2015 (Environment Management) as well as BS OHSAS 18001:2007 (Health and Safety), allowing for the tracking and monitoring of goals defined in the sustainability strategy, however the system is only implemented in Europe and North America. adidas established a greenENERGY Fund in 2012, the first of its kind in the footwear and apparel industry, where the fund helps sites implement projects with energy and carbon savings, and said savings made by sites are retained by the sites. In certain facilities, this has led to an 88% reduction in energy consumption, with a savings between 750,000 and 900,000 euros. [24]

Online Shopping

Online shopping has grown to be increasingly commonplace in today's society, despite its introduction less than 30 years ago. In the fourth quarter of 2017, retail e-commerce sales in the United States, adjusted for seasonal variation, amounted to \$119.0 billion, accounting for \$9.1 of total retail sales. ^[30] Online retail sales grew by 16.9% from the previous year. Although online shopping is a relatively new phenomenon, people have been ordering from catalogues for centuries, with the first catalogue published in 1498. However, traditionally, a majority of shopping globally has been done at brick-and-mortar stores, especially when it comes to apparel, as most people want to see if apparel fits well or looks good before purchasing it. With the advent of online shopping, returns by mail has arrived as well, making it much easier for a person who did not like the apparel they bought to be returned. It is debated whether online shopping or traditional brick and mortar shopping is more sustainable.

Simon Property Group in conjunction with Deloitte consulting conducted a study in 2016 using a “cradle to grave” Life Cycle Analysis examining the environmental impacts of all material, energy and fuels of four different types of product purchased at the mall or online. ^[27] When it came to solely energy emissions, online shopping emitted only 18% of what malls emitted,

Figure 19 Simon Property Group/Deloitte Life Cycles of Mall Products and Online Products ^[27]



however, when it came to overall emissions including fuel and packaging, malls performed 7% better, by a difference of 2,585 metric tons of CO₂. The stark difference is attributed the fact that when customers travel to malls, they often travel in groups, and buy 4.5 products per trip, lowering the average fuel burned by each product. Online shopping also has a 33% rate of return, where brick-and-mortar purchases only have a 7% rate. ^[27] Packaging from online shopping has a greater overall impact as well. When a person buys multiple products from a brick-and-mortar store, they often go in the same, singular bag, be it plastic or paper. When a person buys multiple products online, each product is often individually packaged in a plastic bag, before being placed in either a singular box or plastic bag. Often, online orders come in separate shipments as well.

Gottingen University in Germany and Aarhus University in Denmark studied the transport related CO₂ effects of online versus brick-and-mortar shopping, specifically regarding clothing retail, with regards to distance from home to store and distance from warehouse to consumer. ^[28] They used two different locations for brick-and-mortar stores, one in the city center and one closer to the retailer's central warehouse. They found that CO₂ emissions per article from online shopping were less than brick-and-mortar shopping by a factor of ten, with online shopping emitting 0.232 kg of CO₂ and brick-and-mortar shopping emitting 2.454 kg of CO₂. Emissions per transaction, overall, were six times less with online shopping as well, emitting 0.747 kg of CO₂ versus the average of 4.220 kg of CO₂ emitted by brick-and-mortar shopping. ^[28]

However, when the brick-and-mortar stores are within a small distance, less than 14 km or 8.7 miles, the emissions per transaction were less when shopping at a brick-and-mortar retailer, by 0.040 kg. ^[28] This can be attributed to the fact that when the store is within a close distance, people use alternate methods of transportation to get to the store, either by public transportation, bicycling or even walking. If everyone used public transportation, they found that the break-even point,

where emissions would be the same regardless of shopping source, can be extended as far 74 km, indicating public transportation has a huge effect on the environmental effects of shopping.

This also has an effect on emissions when it comes to returns, where returns made to stores within the small distance of 14 km emitted less than returns made to online retailers, by .269 kg for a return quota of 6%, and by .745 kg for a return quota of 10%.^[28] For larger distances, online shopping was largely more efficient. When companies are looking to ship items, logistics algorithms determine how many packages to fit in trucks going to particular destinations, often finding very efficient routes, both economically and environmentally. This is why sometimes when a customer orders a package that is being delivered from a local warehouse, it may go through service centers around the country before being delivered to the customer in the local area. If not enough packages are going to the local area, it does not make logistic, economic or environmental sense to send that package with a truck to that area, instead bouncing it around until a collection of packages builds up to send to that location.

Consumer Preferences

Fashion companies at the end of the day are still a business, and businesses make decisions on profitability, in which part depends on consumer preferences. Numerous studies have evaluated attitudes, motivations, perceptions and values towards sustainable fashion consumption. In a study published by the International Journal of Consumer Studies in 2016, it was noted that barriers to sustainable clothing behavior included limited knowledge and miscomprehension about environmental effects regarding clothing consumption, limited availability of sustainable clothing outlets, as well as a lack of financial resources to buy sustainable clothing, which is often more expensive than traditional clothing. In the end, it was concluded that for the sustainable fashion to

become a norm, industry intervention is required in conjunction with policy makers and consumer perceptions and attitudes.

One study done by researchers in 2016 at the University of Bath in the United Kingdom explored the values consumers have and motivations towards actual sustainable fashion purchases. A large struggle was defining what sustainable fashion meant, as it depends on sustainable comes from an environmental or ethical view of the person defining it. Values associated with sustainable products were determined to be social justice, sense of accomplishment, protecting the planet, responsibility, self-esteem and self-expression. ^[29] It was discovered that sustainable clothing is attributed to be of higher quality that last longer, leaving consumers feeling they obtain value for their money when purchasing sustainably.

Clothing that is produced exclusively sustainably often uses “timeless cuts”, or rather, design that does not follow fashion trends, but can be worn consistently, considering that the cost of sustainable clothing often leads to less purchases, but products that last longer. Being outside of fashion trends that the masses follow, it allows the consumer to combine products into their own unique style, leading to a sense of self-expression, as well a higher self-esteem when feeling both comfort and aesthetically pleasing in their outfits. Because sustainable clothing is often produced from natural fibers and is subject to less hazardous chemicals in the manufacturing process, there is a perceived health benefit to sustainable. Although most consumers mentioned that they were not experts about sustainability in clothing, many still had a basic idea of what they could do for environmental benefit – buying second hand, proper laundering techniques, etc. These types of actions combined with knowing that the product they are buying are sustainable leads to a sense of accomplishment. When it came to actual purchases, it was also discovered that benefits in terms of sense of accomplishment, better health, self-esteem, and value for money weighed

more in customers decisions than responsibility, protecting the planet, and social justice combined, leading to the idea that the attributes and values associated with buying sustainably are more important to purchase decisions than the simple act of buying sustainably.

Defining Sustainability

Fashion industry leaders have been tackling sustainability issues for a few years, first by their own definitions but in conjunction with already in place industry standards. Sustainability as defined by Inditex includes social and environmental sustainability, but for LVMH, the environmental report is entirely different from the social responsibility report, and has not been updated as often. But what are the industry standards that these companies and others have now been following? Even with industry standards, sustainability varies in definition and scope and it depends on the intent of the agency defining it.

Green Buildings

When it comes to building certifications, there are tens of different types of certifications, whether for individual systems in a building, or for the entire building itself. Used by Inditex, LVMH, and adidas, LEED and BREEAM are some of the most commonly well-known green building certification systems. Leadership in Energy and Environmental Design (LEED), was developed by the United States Green Building Council (USGBC) in the 1993, and grew to have more than 93,000 participating projects in 167 countries and territories. ^[31] Globally, this amounts to 19.3 billion square feet, of which nearly 5 million people experience and interact with on a daily basis. 5 primary LEED rating systems exist:

- LEED Building Design + Construction, which addresses new construction and major renovations for schools, retail, data centers, warehouses and distribution centers,

hospitality, healthcare, and homes/multifamily low and mid-rises. This is one of the ratings that would be most beneficial to fashion companies, as retail and warehouses/distribution centers are included.

- LEED for Interior Design and Construction, addresses the interior of buildings, where people spent 90% of their time, and includes retail, hospitality and commercial interiors.
- LEED for Building Operations and Maintenance addresses existing buildings, especially retail, schools, hospitality, data centers, warehouses and distribution centers, among others. This rating system would also be ideal for fashion companies, especially considering most of their retail stores and warehouses/distribution centers are already constructed and in use.
- LEED for Neighborhood Development
- LEED Homes is available for building design and construction projects that include single family homes and multifamily projects up to 8 stories tall.
- Also available, but not as separate rating systems include LEED volume certification, and LEED campus/multiple building certification, ^[32] both of which could be beneficial to fashion companies. LEED volume certifies a portfolio of similar buildings for companies and organizations, which fashion companies generally do have similar buildings as a way of branding their store, and works with both new construction and existing buildings. LEED campus works for multiple buildings on a single site, which can include a corporate campus. LEED campus works with any of the LEED commercial rating systems.

The LEED certification system works by projects receiving points across nine basis areas that are key aspects of green building – Integrative Process, Location and Transportation, Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation, and Regional Priority. The total number of points achieved allows a project

to earn one of four rating levels - LEED Certified (40-49 points), LEED Silver (50 -59 points), LEED Gold (60-79 points), and LEED Platinum (80+ points).^[33]

Building Research Establishment Environmental Assessment Method (BREEAM), first developed in 1990 by the Building Research Establishment in the United Kingdom, and of all the green building certification systems, is the longest established. In 77 countries, there are 2,272,744 registered buildings, and 564,524 certificates.^[34] There are 5 BREEAM standards, similar to LEED ratings.

- Communities, especially for master planning new communities or regeneration projects
- Infrastructure, with regards to civil engineering and the public realm
- New Construction, for both homes and commercial buildings
- In-Use, for commercial buildings
- Refurbishment and Fit out, for homes and commercial buildings

BREEAM measures the sustainability of a building within 10 categories – Energy, Health and Wellbeing, Innovation, Land Use, Materials, Management, Pollution, Transport, Waste and Water^[36]. Instead of points, each category has targets and benchmarks that when reached, score credits. Each category has a different weighting, and each category score is added and weighted. The sum of the weighted scores determine the final rating, which ranges from Unclassified (< 30% score), Pass (\geq 30% score), Good (\geq 45% score), Very Good (\geq 55% score), Excellent (\geq 70% score), and Outstanding (\geq 85% score). Unclassified buildings are considered non-compliant with BREEAM.

LVMH also mentioned having buildings built under the BBC and French HQE standards. BBC stands for Bâtiment Basse Consommation, or Low Consumption Building, officially created by the French Government in 2007, inspired by Switzerland's Minergie low energy standard and

Germany's Passivehaus. BBC is less of a certification and rating system but rather a building standard. HQE stands for Haute Qualité Environnementale, or High Environmental Quality, and was created in 2012, and as of 2016 had projects in 24 countries, and focuses on managing outdoor environmental impact such as minimizing energy and water use, minimizing waste in operations, and minimizing building maintenance and repair, as well as creating a pleasant indoor environment through hydrothermal control measures, acoustic control measures, visual attractiveness, smell control measures, air quality controls, and water controls. There are 4 categories, energy, environment, health and comfort, in which 4 stars can be awarded for each category. Based on the number of stars received, the HQE level received could be Pass (1 star), Good (2 stars), Very Good (3 stars), Excellent (4 stars), Exceptional (5 stars).^[35] In 2009 it was announced that a memorandum of understanding was written with the UK's Building Research Establishment to develop a green building assessment method that would be pan-European, as BREEAM and HQE have similar markets, but no assessment has been developed yet. LEED is the most widely used certification system globally, where HQE prevails in the European market by surface area and BREEAM is most common certification in many countries.

■ The diagram below shows the phasing of audits based on the "classic" conduct of a design and construction project.

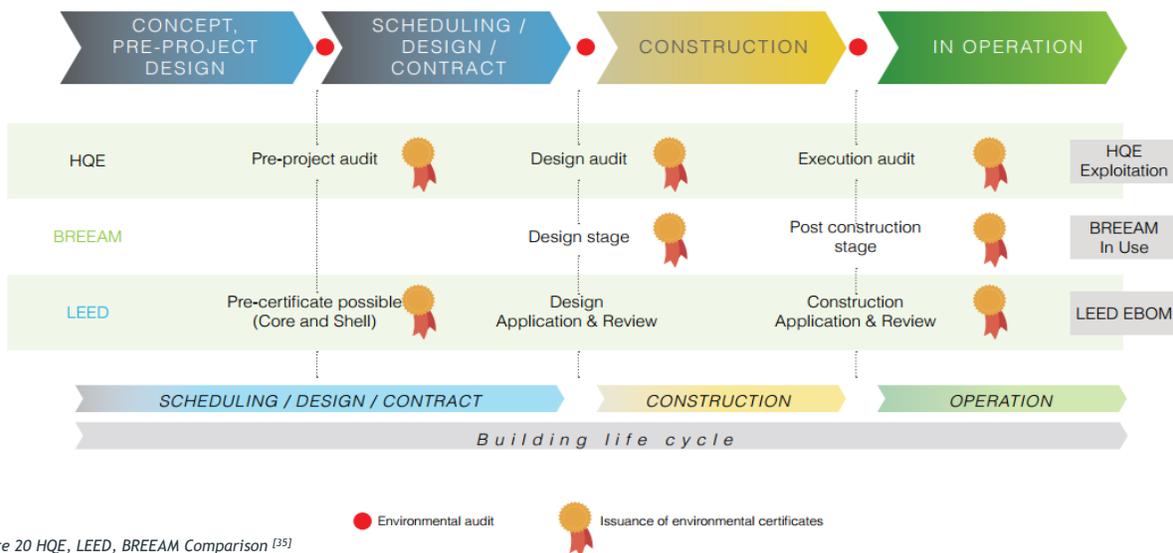


Figure 20 HQE, LEED, BREEAM Comparison^[35]

Beyond entire building certifications, Inditex, LVMH and adidas AG mentioned using ISO standards. The International Organization for Standardization was founded back in 1947, and promotes global proprietary, industrial and commercial standards, and has a membership of 161 nations. ISO standards were used not only by Brand Finance, the brand valuation company of which company choices were based off of, but both Inditex and adidas AG use ISO 50001, and both LVMH and adidas AG use ISO 14001. The ISO 50001 standard tackles energy management, and is about using energy efficiently in order to help organizations save money and conserve resources. ^[38] This is done through the development of an energy management system, and providing framework to develop energy policies, as well as work towards meeting set goals and reviewing how those policies work, in order to continually improve energy management.

The ISO 140001 standard tackles environmental management systems, specifically for use by organizations to enhance their environmental performance. ^[39] Intended outcomes include enhancement of environmental performance, fulfillment of compliance, and achievement of environmental objectives, and can be used systematically to ensure continuous improvement. adidas also mentioned using BS OHSAS standards, which is an Occupational Health and Safety standard set by the British Standards Institution. The United States has an equivalent from the US Department of Labor – OSHA, or Occupational Safety and Health Administration. Both OHSAS and OSHA focus on health and safety of employees, both within construction and on the job thereafter, and include specific building standards that can contribute to employee safety and health.

Reporting Agencies

Corporations have a longstanding obligation of reporting on their business, mostly for investor benefit, but also for the sake of transparency with consumers. Although sustainability is not

mandated, many companies have chosen to report their sustainability efforts for the sake of investors and consumers. Even when it comes to reporting, there are a number of different organizations mentioned by Inditex, LVMH and adidas AG, with GRI and DJSI being the main two. Global Reporting Initiative (GRI) is an independent, international, not-governmental organization that began in 1997. The GRI mission is to empower decisions that create social, environmental and economic benefits for everyone, and that begins with the GRI Sustainability Reporting Standards. ^[40] Sustainability reporting is an intrinsic part of integrated reporting, where the analysis of financial and non-financial performance are combined, such as in the case of Inditex, in which only one annual report is released. Often times, sustainability reporting can be considered synonymous with corporate social responsibility reporting, but not all companies do that, as in the case of LVMH where the environmental report and the corporate social responsibility reports are entirely separate.

Distinct elements of GRI Sustainability Reporting Standards include:

- Multi-Stakeholder Input, where, through a consensus approach representing needs of all report makers and users, allows for the production of universally applicable reporting guidelines, for any industry
- A Record Of Use And Endorsement, in which through the growing use of GRI reporting, more sustainability information is reaching new audiences, who now want better performance data, as well as more of it
- Governmental References and Activities, in which enabling policy changes increases the goal of sustainability
- Independence, specifically from private interests, through a business model that aims for self-sufficiency

- Shared Development Costs, where the costs of developing the reporting guidance by GRI is shared across the users and contributors.

On GRI's Sustainability Disclosure Database, there are over 29 thousand GRI reports, and over 47 thousand other reports. Globally, 92% of the largest 250 corporations report on their sustainability performance, and 74% use GRI standards for their reports. 35 countries use GRI in their sustainability policies, and GRI collaborates with over 20 international organizations, including the UN and OECD.

The Dow Jones Sustainability Indices (DJSI), launched in 1999, is a family of indices regarding sustainability performance for over 3,400 companies annually. ^[41] Each company is asked between 80-120 industry specific questions about economic, environmental, and social factors that are relevant to company success but under-researched during conventional financial analysis. DJSI publishes the scores of each companies, ranking them in their Sustainability. Inditex has been a member of the DJSI since 1999, and in 2016 earned a score of 80 out of 100 points, where the industry average was 36 points. In the environmental dimension, they score 97 points, and in the social and economic dimensions score 76 points each. ^[11] The DJSI specifically mentioned that Inditex sets a “new high standard” for the fashion industry regarding public disclosure. But even beyond GRI and DJSI, there are various other reporting agencies used by companies, including the Corporate Information Transparency Index, the Fashion Transparency Index, the Corporate Human Rights Benchmark and the Carbon Disclosure Project, to name a few. It leaves the question, of all the reporting agencies, which is best for companies to report to? When there are so many, it becomes harder to decide which to follow, and even if smaller ones have “nobler” goals, it would make more sense to follow whatever the largest reporting agency there is.

Materials

When it comes to materials, types of materials used vary even within the fashion industry, by type of fashion produced. LVMH, over adidas AG and Inditex, have a lot of leather goods in their fashion products, whereas adidas AG would use more rubber than LVMH and Inditex because footwear is a major part of their brand. All three companies mentioned the Better Cotton Initiative (BCI), and adidas was actually one of the founding members the Better Cotton Initiative. BCI was started in 2005 as a discussion by the World Wildlife Fund, and implementation of practices began in 2010. BCI has a goal to make global cotton production better not just for the environment it grows in and the economic sector of the future, but also better for the farmers producing cotton. They have four specific aims, reducing the environmental impact of production, improving livelihoods and economic development, improve commitment to and flow of “Better Cotton” throughout the supply chain, and ensuring the credibility and sustainability of the BCI. ^[41] While a program with good intentions, a report published by the World Wildlife Fund, the Pesticide Action Network UK, and Solidaridad, entitled “Sustainable Cotton Ranking 2017” mentions over 10 different organizations of governmental standards that focus on cotton around the world, leaving the BCI to be another organization of many. There is also controversy surround the BCI, were independent journalistic investigations call out the BCI for greenwashing solutions because there are many cotton producers working with the BCI that still resort to practices such as child labor or intense pesticide use and spraying.

Both adidas AG and Inditex participate in the Zero Discharge of Hazardous Chemicals (ZDHC) program. The ZDHC program publishes the Manufacturing Restricted Substances List (MRSL), which is a list of chemical substances that should be banned from intentional use in facilities, most particularly textile, apparel, leather and footwear facilities. ^[42] There are acceptable

concentration limits for substances, but overall the goal is to be avoided. Even within this program, participation is optional, but over 24 signatory brands, 53 values chain affiliates and 15 associates are participants. The list is continuously updated as more information from studies and suppliers are released. Chemicals in the list include volatile organic compounds, total heavy metals, polyflourinated chemicals, phthalates, flame retardants, and carcinogenic dyes, amongst many others. Usage ban does not only apply to the production of clothing within a facility, but as well as chemicals used for cleaning and maintenance of said facility.

The Sustainable Apparel Coalition (SAC) is a global alliance of retailers, brands, manufacturers, academic institutions, governments and advocacy groups in order to change the future of the apparel, footwear, and textile industry towards more sustainable production that produces no unnecessary environmental harm, with a positive impact on people and communities.^[43] The SAC was launched in 2009 by Walmart and Patagonia, and is responsible for developing the Higg Index, a standard for assessing environmental and social sustainability throughout the supply chain, made public first in 2012. There are over 200 members a part of the SAC, with combined annual apparel and footwear revenues exceed \$500 billion USD. Within the Higg Index, environmental impacts that are measured include GHG emissions, energy use, water use, water pollution, deforestation, hazardous chemicals and animal welfare. Social impacts that are measured include child labor, discrimination, forced labor, sexual harassment and gender-based violence, non-compliance with minimum wage laws, bribery and corruption, working time, occupational health and safety, and responsible sourcing. The Higg Index however, is not publicly available, and is accessible as a member of the SAC.

Conclusion

The top growing companies in the fashion industry are most definitely doing their part in not only performing sustainable actions, but also leading and paving the way for other growing companies to follow in the future. All of the environmental sustainability actions that Inditex, LVMH and adidas AG have been implementing are in no way required. Energy use reduction, water use reduction, greenhouse gas emission reductions, waste reduction, and in the case of LVMG, water pollution reduction, are all great goals for the environment, as well as being good economic investments for the future when the reductions will translate to billions of dollars, or euros, saved. Social sustainability implementations are not required either, but is one of the most visible issues and most voiced issue by consumers. Although adidas AG has not been caught in a “sweatshop” scandal since 2000, Inditex was caught in a scandal as recently as November of 2017, thus making social sustainability a priority for Inditex. But that is not to say that environmental sustainability is not a priority either, both adidas AG and LVMH are committed to ensuring their new warehouses and administrative centers have some type of green building certification, be it LEED, BREEAM, or HQE, but Inditex went so far as to update as many of their warehouses and administrative centers to green building certification standards as well, not just new buildings but the existing ones as well.

It is also of note that both adidas AG and LVMH have developed their greenENERGY fund and Carbon Fund, respectively. The adidas AG greenENERGY fund was first in the apparel and footwear industry, and is especially of note that sites get to retain the savings they get from implementing energy and carbon saving techniques. The LVMH Carbon Fund, first and only in luxury brands, is slightly different, where individual brands pay per metric ton of CO₂ emissions, and then the fund is used for implementation projects, giving brands with high emissions incentives

to lower their emissions, lest they be paying for it. Both concepts are innovative and new to the industry, and would be a great implementation for other brands within the industry and outside the industry as well.

Although sustainability reporting, both regarding environmental and social issues, are not required, all three companies have sustainability as a large part of their reports, whether through integrated reporting or stand alone. Although from reports it can be seen that not all metrics are met every year, from the consumer perspective, it is good to see that companies are transparent about their actions and that that corporations are actively trying in a measureable way. It would be of benefit if companies started evaluating and reporting their online versus brick-and-mortar sustainability, as the few studies regard them seem to have conflicting results. Malls are more sustainable than online shopping, because people tend to travel in groups and visit multiple places at once, but online shopping is generally more sustainable than individual stores – unless the individual store is very close by. Data from such large companies – like Inditex with it is over 7,000 stores, would be great in finding more sustainable solutions for the future.

In the end, it is clear that when it comes to sustainability, businesses have to take the lead before consumers ask for it. In social sustainability consumers care more, but environmental sustainability is also a good businesses investment, and when the consumers become more aware of what sustainability is and the goals of sustainability, it will benefit the companies more who have been practicing sustainability for longer. There is room for improvement within the fashion industry, namely having larger goals and applying them across the board, not only at “strategic” or new locations. It seems that many of the companies are starting with the low – hanging fruit, as they should, with things like implementing LED lighting, but it would be an interesting industry to watch in the future as innovation and new technologies improve and take over.

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