

Synthetics

Anonymous 2.0

Fashion's persistent plastic problem



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This report was researched and written by the Changing Markets Foundation.

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List of abbreviations

CMA	Competition and Markets Authority
EPR	Extended Producer Responsibility
ESG	Environmental, Social and Governance
EU	European Union
GFA	Global Fashion Agenda
GHG	Greenhouse gas
HKRITA	Hong Kong Research Institute of Textiles and Apparel
OSH	Open Supply Hub
PET	Polyethylene terephthalate
SBTi	Science-Based Targets Initiative
TMC	The Microfibre Consortium
UNFCCC	United Nations Framework Convention on Climate Change
ZDHC	Zero Discharge of Hazardous Chemicals

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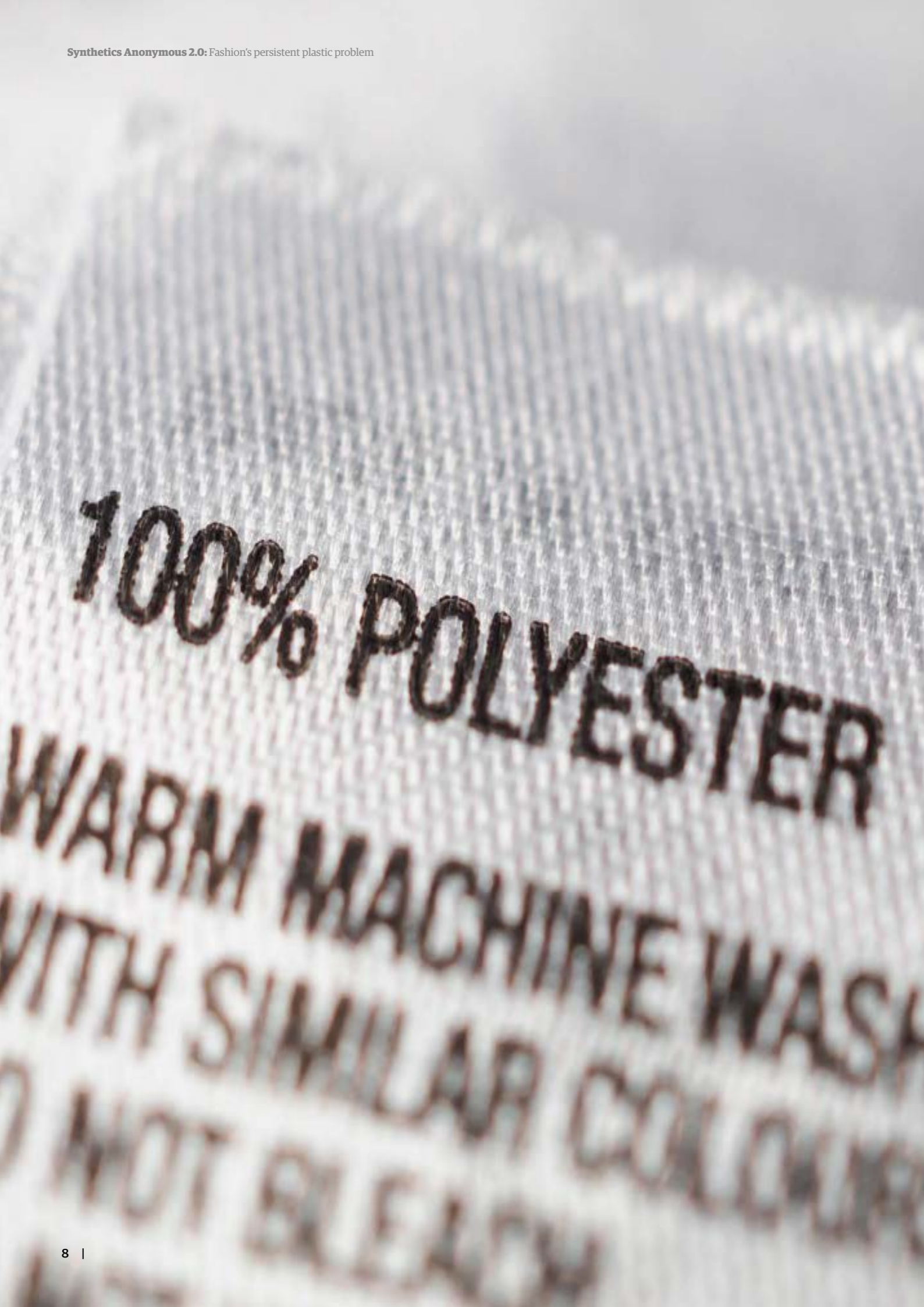
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Executive summary

Synthetics Anonymous 2.0 uncovers the lack of progress that has been made by the fashion industry to kick its synthetics addiction. One year on from *Synthetics Anonymous: fashion brands' addiction to fossil fuels* (henceforth referred to as *Synthetics Anonymous 1.0*), this report assesses where global clothing companies stand in reducing reliance on synthetic fibres and their transparency on usage.

Fossil-fuel-based fibres are a key enabler of the business model driving today's overconsumption of fashion. They also perpetuate the fashion industry's dependence on continued fossil-fuel extraction in the midst of a climate emergency. As we exposed in our 2022 investigation, *Dressed to Kill*, fashion brands' reliance on synthetic fibre is exposing fashion brands to other risks, such as using polyester produced from Russian oil at a time of war, as well as sourcing from companies that have invested in producing polyester from coal.¹ As synthetic fibres represent over two-thirds of textiles, a share that is growing, they have become a huge cause of fashion's ongoing waste crisis, which shows no sign of abating. With the majority of synthetics being unrecyclable and often used in complex textile blends that stand in the way of circularity, we still see no wide recognition from the fashion industry that this is a significant problem. The report also finds an overwhelming lack of transparency over synthetic fibre supply chains, and none of the brands has committed to a phase-out of fossil-fuel-based synthetic fibres.

We reached out to 55 brands with a questionnaire and conducted desk research into their policies and public disclosure of relevant information on this topic. Our questionnaire requested disclosure on several topics, including use of synthetic fibres, synthetic suppliers, use of recycled fibres, commitments to phase out synthetics fibres, policies to address end-of-life management of synthetic fibres, policies to address microfibre release, climate targets and company position on elements of the European Union (EU) legislation proposed in the EU Textile Strategy. Where appropriate, brands and retailers were classified into four categories: *Front-runners*, *could do better*, *trailing behind* and *red zone*. In total, 31 of 55 (56%) brands responded to our enquiry, a rate lower than in 2021 when we received direct answers from 39 of 46 brands (85%).

Analysis of the responses to our questionnaire signals fashion's synthetic fibre addiction has not undergone any significant rehabilitation over the last five years. Thus, amidst an accelerating climate emergency, over one-fifth of the largest fashion companies are recording a heavier reliance on fossil-fuel-derived fabrics. Brands



continue to mask their addiction to synthetic fibres under the guise of commitments to increase their proportion of 'sustainable' materials, including recycled synthetics (mostly polyester and nylon); however, green claims on polyester made from recycled polyethylene terephthalate (PET) bottles as the main sustainability strategy for synthetics have been facing increasing scrutiny over the past year from regulators and consumers concerned about misleading environmental claims. At the same time, few brands are investing in fibre-to-fibre recycling technology. Moreover, brands have still not changed communication across their online channels, as our investigation still revealed high levels of greenwashing through the use of vague and unsubstantiated claims with regards to 'sustainable' materials, 'preferred fibres', 'environmentally friendly fibres' or 'better' materials.

The disparity between fashion's sustainability agenda that is hyper marketed in the windows and on the websites of brands and the concrete evidence of their inaction on fossil-fuel-derived fabrics detailed in this report should act as a call to action for policymakers, investors and retailers to advocate for and embrace legislation that can regulate and help to rehabilitate fashion's synthetic fibre addiction, which should also put them on track to meet climate targets and align them with the circular economy agenda.

Key findings

Still hooked on fossil fuels

- From the 55 global brands and retailers analysed this year, only one company (Reformation), landed in our *Frontrunners* category. The company is committed to phasing out virgin synthetics by 2030 and reducing all synthetics (virgin and recycled) to less than 1% of total sourcing by 2025.
- There were 22 companies (40%) that were in the *Red Zone*, with little to no transparency about their strategy on synthetic fibre use.
- From the 33 companies that revealed their synthetics volume and percentage, ultra-fast-fashion brand Boohoo was identified as the organisation with the heaviest reliance on synthetics as a percentage of its total annual fibre used (64%) and was also the brand found to have the most polyester included in the majority of its textile products (54%).
- Nike and Inditex reported the highest volumes of synthetics and polyester used in their products, disclosing volumes of 166,343t and 131,548t, respectively.
- Fourteen of 55 brands (25%) have increased their use of synthetics, both in terms of the percentage of total fibre mix and total volume over this period. Thus, amidst an accelerating climate emergency, with many other industries scrambling to decarbonise, one quarter of the fashion sector's largest companies are recording a heavier reliance on fossil-fuel-derived fabrics.

Top ten brands that use the most synthetic fibres as a proportion of total fibre used		Top ten brands that use the most synthetics by disclosed volume	
Brand	Synthetics as % of total fibre used	Brand	Disclosed volume of synthetics (tonnes)
boohoo	64%	NIKE	245,239*
VF	63%*	INDITEX	178,030
lululemon	62%	PUMA	66,248
NEW LOOK	60%**	PVH	32,936
adidas	56%	boohoo	30,616
PRIMARK	43%	next	23,915
bonprix	36%	C&A	23,524
INDITEX	36%	lululemon	23,390
PUMA	35%	MARKS & SPENCER	22,156
next	34%	George ASDA	15,696

*Derived from 'top materials' nylon, polyester, polyurethane and rubber.

*Derived from polyester and rubber data.

**Derived from 2021 response.

These data were collected from publicly available information from the 33 brands that shared data on their synthetic fibres by volume and percentages.

Murky supply chain

- Of the brands that responded to the Changing Markets Foundation's questions about their synthetic suppliers, 27 out of 31 (87%) provided insufficient details on their synthetic suppliers. Several companies provided no details on synthetic suppliers at all, including retailers Asda, Sainsbury's and Tesco, high-street retailers Inditex and Uniqlo, online retailer Zalando, sport brand Puma and luxury companies Burberry and Kering (owner of brands including Balenciaga, Bottega Veneta, Gucci and Saint Laurent).
- Only four of 31 brands that responded (7% of all brands included in the research), sent Changing Markets their supplier lists, which explicitly outline which companies provide synthetics and what type. These brands are Levi Strauss & Co., Next and Reformation, with Boohoo only sharing their recycled synthetic supplier lists.

Banking on bottles

- Overall, 45 of the 55 brands (81%) have set targets to increase their recycled synthetic content, namely polyester. The 99% of recycled polyester comes from downcycling PET bottles,² a false solution and a far cry from a circular model. Moreover, no single company has paired this commitment with a promise to decrease the overall volume of synthetics used in their garments.
- Across all fibre types, several brands were completely dependent on recycled polyester for all their recycled fibre content; these brands included Morrisons (100%), Next (97%) and Puma (93%).
- A handful of brands disclosed the total amount invested in fibre-to-fibre technologies. These were Reformation, Tesco, H&M Group and Hugo Boss. With each of these, except Hugo Boss, sharing figures. H&M Group shared the value of direct investments, noting that in 2021, this hit €3.7 million. These funds have been redirected towards companies such as Ambercycle, Infinited Fiber and Re:newcell. It should be kept in mind that this represents 0.04% of H&M Group's gross profit of €9.58 billion in the last financial year.
- Voluntary initiatives, such as the Textile Exchange's 2025 Recycled Polyester Challenge are proving to have a limited impact. From the initiative's 132 members, just under half were able to report on total polyester volumes for 2019-2020 and only 41 of 132 (31%) of those that joined the challenge had reduced their total polyester fibre volumes between 2019 and 2020.³

Brands that use the most recycled polyester as a proportion of their total recycled fibre content		Top ten brands that use the most natural fibres as a proportion of total recycled fibre content	
Brand	Recycled polyester as % of total recycled fibre content	Brand	Recycled natural fibres as % of total fibres used
 MORRISONS	100	Reformation	68.03
next	97	 UNITED COLORS OF BENETTON	62
 PUMA	93	 KERING	55.1
PRIMARK	92	Dressmann	50
 LEVI'S	92	INDITEX	25
G-STAR RAW	86	 H&M	24.45
 ASDA	84.2	PVH	24
 zalando	83	 bonprix	12.9
 C&A	80.41	boohoo	12
LIND&X	77	 C&A	7.31

Microfibre release still in brands' blind spots

- On the important issue of microfibre release, brands demonstrated a concerning lack of disclosure. Of 55 brands, 25 (45%) landed in the *Red Zone*, with either no evident microfibre policies or little available information.
- Our results highlight an overreliance on membership in voluntary initiatives such as The Microfibre Consortium (TMC), cross-functional working groups and research projects, whereby brands continue to kick the can down the road. The TMC is limited in scope, has transparency issues and has failed to deliver significant measurable positive impact since its inception in 2018. Only one brand, Reformation, landed in the *Frontrunners* category, as it said it would phase out the use of synthetics as a precautionary principle to tackle microfibre release. No other company mentioned phasing out synthetics because of microfibres, and none from children's collections. This is concerning as studies have shown that children may be the most at risk from microplastic exposure.^{4,5}

End-of-life lacking tangible action

Efforts to effectively manage the end of life of synthetic clothing are predominantly focused on the pursuit of product durability, with half of brands saying that they are doing this. Attempts to remedy the challenges of separating textiles for recycling, repair or reuse were also popular as 26 of 55 brands claim to be investing in solutions; however, much of this was participation in research initiatives as opposed to being able to prove investment in end-of-life infrastructure such as recycling, repair facilities or sorting.

Hazy on climate

At a broader level, examination of the fashion industry's climate targets reveals that brands are not as ambitious as their barrage of press releases and Net Zero marketing campaigns would lead us to believe.

- Six of 55 companies (10%) had no climate targets whatsoever.
- Companies such as lululemon and Boohoo, who are working meticulously to craft a reputation as being sustainable, reported increasing their emissions. In 2021, lululemon increased total Scope 3 emissions by 36% compared with 2020 and 79% compared with its baseline in 2018. Boohoo stated that from 2020 to 2021 their emissions increased by 29%.
- In some instances, Scope 3 emissions targets are missing from company goals and reporting on progress towards near- and long-term climate targets is sparse.
- Despite commitments to the Science-Based Targets Initiative (SBTi), UNFCCC's Fashion Industry Charter for Climate Action, the Carbon Disclosure Project or Textile Exchange, several companies do not map their synthetics supply chains and thus, cannot deal with the basic risks of sourcing, such as reliance on conflict oil, coal and fracked gas.
- Seven companies said they would still source from a supplier that uses coal, despite many of them being committed to phase out coal from owned and supplier sites by 2023 under the UNFCCC's Fashion Industry Charter for Climate Action. This includes Dressman, Lindex, Primark, PVH Group and Tesco.
- Fewer than half the brands (45%) that engaged with us outright said they would not source from a supplier that produces polyester from coal. Despite 14 of 31 responding with a clear 'no' to this question, our *Dressed to Kill* report found that several of these were found sourcing from the Chinese Hengli Group, which has invested in a \$20 billion project to produce polyester from coal by the end of 2025.⁶ This includes Adidas, Asda, C&A, H&M, Inditex and PVH Group. If these brands do not rapidly improve supply chain visibility and step away from companies with plans to turn coal into clothes, they will break their own climate commitments.

Green light for legislation

Last, this report offers new insights into the sector's attitudes towards policies embedded within the EU Textile Strategy. Although not all brands have headquarters in the EU, 26 of the 31 that responded sell to the EU market, which will also make them subject to the upcoming legislation. We sought to ascertain the popularity of Extended Producer Responsibility (EPR), recycled content targets, supply chain transparency and more. Some elements were more palatable than others. Industry-wide support was expressed for EPR, legislation for eco-design criteria and eco-modulated fees. Overall, 25 of 31 brands (80%) were in favour of EPR, 26 of 31 (83%) were in favour of eco-design criteria and 18 of 31 (58%) were in favour of eco-modulated fees, with many companies acknowledging the value of harmonisation. The majority (68%) would also support legislation for ambitious reuse and recycling targets. Similarly, responses on a ban of chemicals and substances of concern received majority support with 23 of 31 brands (74%) in favour.

There is a significant intention-versus-action gap articulated in many of the responses to proposed legislation. The highest support was expressed for legislation to reduce the risk of false green claims (29 of 31 (94%) brands), including brands currently under investigation for greenwashing (i.e. H&M Group). This level of support also signals that brands are looking for concrete guidance on greenwashing to remain compliant in their claims. The European Commission was supposed to come out with a proposal on this issue on 30 November 2022, but this has been delayed to 2023.

The report clearly demonstrates the inaction by the fashion industry to tackle the ongoing waste, climate and microplastic pollution crisis. Surprisingly, the fashion brands show significant levels of support for several of the policies that were proposed in the EU Textile Strategy. Policymakers must step up and find effective legislative solutions to put the fashion industry on a more sustainable track. The upcoming legislation under the EU Textile Strategy presents a significant opportunity to do this. The legislation needs to be aligned with the EU Strategy for Sustainable and Circular Textiles published in March 2022, which already recognises fossil-fuel-based synthetics as one of the main culprits behind the fast-fashion model, microfibre pollution and the inefficient use of non-renewable resources.⁷



1. Background: Fashion industry's addiction to synthetic fibres

The fashion industry depends on cheap synthetic fibres, which are produced from fossil fuels, such as oil and gas. Since the early 2000s, fashion production has doubled - as has the use of polyester, which is now found in over half of all textiles. Synthetic fibres now represent over two-thirds (69%) of textiles, requiring more oil than the annual consumption of Spain. This percentage is predicted to rise to 73% by 2030.⁸

Produced and sold cheaply, synthetic-dominated fast-fashion items are often discarded after just seven or eight uses, ending up in landfills, incinerators or dumped in nature. Much is also shipped abroad to countries such as Chile, Ghana and Kenya, where up to 40% is discarded upon arrival, choking landfills, entering waterways and being burnt on toxic open fires.⁹ Cheap synthetic fibres not only facilitate the production of low-quality clothing that ends up as waste but also perpetuate the fashion industry's dependence on continued fossil-fuel extraction in the midst of a climate emergency. As we exposed in our 2022 investigation, *Dressed to Kill*, these fossil fuels are coming not only from US fracked gas and Saudi Arabian oil wells, but are also linked to Russian oil in a time of war (see Box 1.1).¹⁰ While other companies and sectors are decarbonising and aiming for a circular economy, it is clear that the fashion industry is heading in entirely the wrong direction - barrelling on recklessly with its extractivist, fossil-fuel powered business model, engorged by self-stimulated overconsumption and churning out mountains of toxic, plastic waste each year.

Policymakers have started to finally recognise the link between synthetics, fossil fuels and fast fashion. The EU Textile Strategy, published in March 2022 states: *'The growing demand for textiles is fuelling the inefficient use of non-renewable resources, including the production of synthetic fibres from fossil fuels.'*¹¹ Additionally, it recognises that *'fast fashion is linked to the growing use of fossil-fuel-based synthetic fibres'* and acknowledges synthetics as the main culprit of microplastics pollution as it notes *'As the highest amount of microplastics are released in the first 5 to 10 washes, fast fashion, which is associated with the growing use of fossil-based synthetic fibres, has a high impact on microplastic pollution.'*¹² Despite this, the strategy stops short of recommending measures that would lead to a reduction of fossil-fuel-derived fibres as a way of curbing fast fashion and cutting microplastic shedding.

1.1 Findings from Synthetics Anonymous 2021

In June 2021 we published the results of the first investigation into fashion brands' policies and progress on synthetic fibres. *Synthetics Anonymous* assessed 46 brands and fashion groups through a questionnaire and desk-based research to establish where these brands (most of which are publicly committed to becoming more sustainable), stand on reducing their heavy reliance on fossil-fuel-based synthetic fibres.¹³

The results were deeply concerning and found brands still largely ignoring fossil fashion, plastic pollution from fibres and end-of-life issues. We uncovered a puzzling lack of leadership to detox from synthetics, with no company having a clear commitment to phase them out, with only a handful indicating that they plan to reduce synthetics. Most remained addicted or were planning increases in volume in a business-as-usual scenario, a stance completely at odds with a worsening climate and plastic waste crisis.

We also found that essentially the only sustainability policy related to synthetics promoted by the fashion industry is the use of plastic bottles to make recycled polyester, with 85% of brands indicating this practice. This, as has been frequently highlighted by industry experts and policymakers, is a false solution - doing nothing to address the waste crisis, while also poaching valuable material from the beverage and packaging industry.

Microplastics were identified as a blind spot for brands. Most tread water, calling for more research to be done, while seemingly ignoring existing research stressing the harm of plastic microfibres on human and animal health, rather than employing a precautionary principle. Companies overwhelmingly relied on their membership of TMC as a token of their concern, rather than having any explicit policies of their own.

Finally, unique to last year's edition, we conducted an online shop sweep of 4,000 products from 12 brands.^A This showed that 67% of products contained synthetics, with the average amount of polyester used in these clothes at 59%. Many products were deemed 'hybrid horrors' containing complex blends of two or more fibre types (e.g. polycotton), which are unrecyclable. Although fibre-to-fibre recycling is still in its infancy, churning out volumes of clothes that are not fit for circularity is an area of concern. We noted that 72% of H&M's Conscious Collection contained synthetics (72%) compared with their main collection (61%), due to the use of recycled plastic bottles.

Greenwashing emerged as a key tactic used to cover up the fact that the bulk of major brands' collections are made from plastic. Claims of 'recyclable', 'sustainable', 'preferred', 'responsible' and 'conscious' proliferated across products, with little to no meaningful substantiation. In fact, in an assessment of over 4,000 clothing items, we found that 59% of claims were misleading or unsubstantiated, according to the Competition and Markets Authority's (CMA) green claims code. Since the first edition of *Synthetics Anonymous*, H&M has removed its Conscious Collection and been the subject of two class-action lawsuits for greenwashing in the US and regulatory crack-downs in Norway and the Netherlands.^{14,15} ASOS has taken down its Responsible Edit ahead of an investigation by the CMA, which also includes Boohoo and George at Asda.¹⁶

This report presents an update, 18 months on. With two years of data, we can assess whether there is a trajectory of brands waking up to the issue of synthetics or whether they remain stubbornly stuck in their addiction to synthetics.

A ASOS, Boohoo, George at Asda, Gucci, H&M, Louis Vuitton, Marks and Spencer, Uniqlo, Walmart, Zalando, and Zara

BOX 11: Dressed to Kill

Our investigation into the polyester supply chain - as fashion's most used fibre bar none - added another hugely concerning element to fashion's addiction to synthetic fibres: the use of Russian oil to make polyester clothing. Using shipping tracking, supplier lists published by brands or by the Open Apparel Registry, information published by brands, direct disclosure to us through our questionnaire and enquiries with companies on supplier lists, we were able to piece together the supply chains of numerous global brands to two major polyester producers: Reliance Industries in India and the Hengli Group in China. While only a handful of brands provide sufficient public disclosure of their supply chain to allow direct links to Hengli or Reliance to be established, many brands included in this investigation are less transparent.

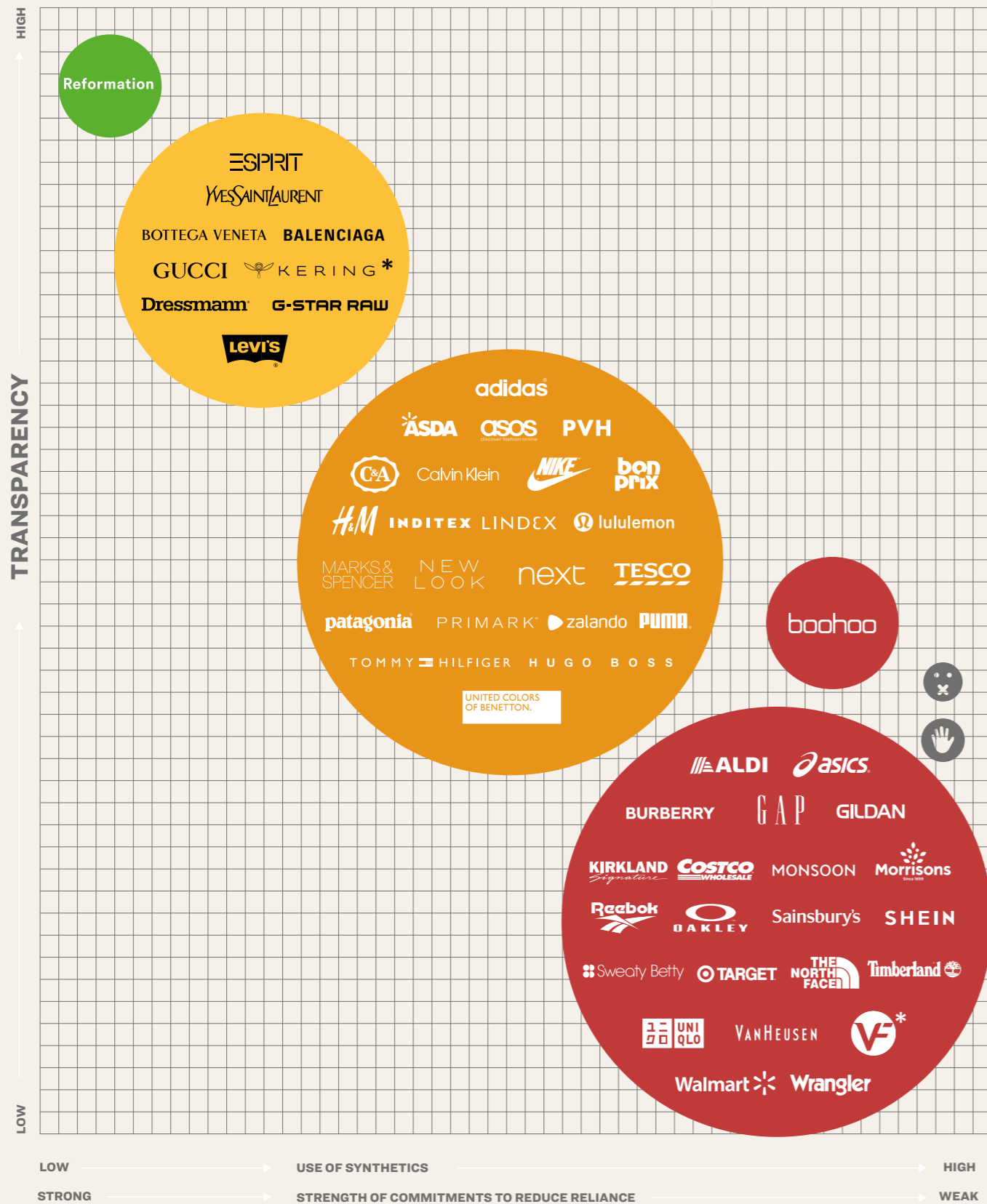
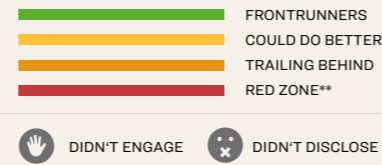


Nevertheless, our research has linked 39 of the 50 (78%) brands and parent companies directly or indirectly to the Hengli Group or Reliance Industries supply chains, illustrating how widely polyester-based clothing made from controversial fossil fuels can spread through the global fashion industry. In particular, Russian oil finding its way into synthetic supply chains of major fashion brands is a huge concern given that the economic damage of Western sanctions on Russian oil have largely been offset by China and India purchasing Russian crude oil at discount prices, and therefore bolstering the Russian economy during its invasion of Ukraine. Moreover, the supply links should be particularly concerning for brands that have ceased downstream operations in Russian due to the war.

The findings of *Dressed to Kill* should hammer home the importance of reducing reliance on synthetics. As if pervasive plastic pollution, increasing dependence on oil and gas during a climate emergency, a spiralling waste crisis and ubiquitous microplastic contamination were not problems enough, indirectly funding war can now be added to the roster. All industries must shake their addiction to fossil fuels or the world will face the terrifying consequences of runaway climate change. It now seems that only the oil and gas industry and the fashion industry are paying no heed to this warning and doubling down on their reliance.



Where do brands stand on transparency, use of synthetic fibres and commitments to phase them out?



This is a simplified representation of companies' performance and not a ranking. More detailed information is available in the league table in Annex III.
 * Parent groups VF Corporation, PVH Corporation and Kering are included for references purposes only, because they replied on behalf of their brands or policies are set at the group level.
 **Many brands in the Red zone landed there due to lack of transparency and disclosure, rather than necessarily high use.

2. The brand questionnaire: Revisiting where brands stand on their use of synthetic fibres

In August 2022, the Changing Markets Foundation and its partners the Plastic Soup Foundation, No Plastic in My Sea, Clean Clothes Campaign, WeMove Europe and Fashion Revolution approached 55 global clothing brands and retailers with a questionnaire via email to request information related to their synthetic fibre use, sourcing practices, climate targets and position on the EU Textile Strategy.

The selection of this cohort of brands and retailers was derived from our research in *Synthetics Anonymous Part 1* (published in 2021) and based on their high scores in the Fashion Transparency Index 2021. New additions to the scope of our report included market players with significant influence, including Aldi, Boohoo, Kirkland Signature at Costco, Oakley, SHEIN and Sweaty Betty.

Our questionnaire requested disclosure on the following topic areas:

- **Use of synthetic fibres:** How much they use each year, what percentage of their clothing is made with synthetics, whether they have experienced an increase or decrease in synthetic fibre use and whether they anticipate a rise or a fall in the future.
- **Synthetic suppliers and coal use:** The names and factories of their synthetic suppliers, including the raw material production stage. This year, we also asked whether brands would source from suppliers that use coal to produce synthetics such as polyester, given our recent findings that major polyester producer Hengli Group is investing heavily in producing polyester from coal.
- **Policies and use of recycled fibres:** Any policies or goals on the use of recycled synthetics, the percentage of synthetics that originate from recycled synthetic fibres, the feedstock and production method of their recycled synthetics, any investment in fibre-to-fibre recycling technologies.

Figure 2.1: Ranking of brands' use of synthetic fibres

- **Commitments to phase out synthetics materials based on fossil fuels:** Policies or commitments to decrease or phase out reliance on synthetic fibres and any implementation of alternative business models to move away from overproduction.
- **Policies to address end-of-life management of synthetic fibres:** Including any policies to increase the durability of textile products and encourage reuse, efforts to design textile products to be more recyclable (such as by eliminating the use of fibre blends that are difficult to separate) and investment into the separate collection of used textiles for reuse, repair and recycling.
- **Policies to address microfibre release:** Such as pre-washing textile products before sale or reducing/phasing out synthetics in products.

New areas that we requested information on included:

- **Climate targets** across the entire supply chain and progress to date.
- **Company position on elements of the EU legislation proposed in the EU Textile Strategy**, including Extended Producer Responsibility (EPR), recycled content targets, tax on virgin synthetic fibres, green claims and eco-design criteria.

In total, 31 out of 55 (56%) brands responded to our enquiry. This was a lower response rate than in 2021 when we received direct answers from 39 out of 46 brands (85%). Explanations for the slight decrease include the fact that brands claimed that they have increased disclosure on their websites and reporting, so answers could be found in the public domain, although as our research indicates, transparency from brands on the listed topics remains highly deficient. A handful of brands have also been acquired by retailers who are less diligent in reporting on environmental sustainability (e.g. Reebok and Van Heusen were acquired from Adidas AG and PVH Corp., respectively by Authentic Brands Group).

In the instance where parent groups such as Kering and PVH answered on behalf of all brands, these individual brands are counted as respondents. Responses without answers to the questionnaire were excluded.

The findings from the questionnaire results were complemented with secondary research collected from July 2022 to September 2022 into each company's publicly disclosed policies and practices on synthetic fibre use, recycling, supply chain transparency and climate targets available on their websites.

To separate the leaders from the laggards on this topic, companies were rated specifically on:

- use of synthetic fibres
- how are brands addressing microfibre release
- climate targets

The methodology used for ranking companies on these topics is provided in Annex I.

2.1. Brands' use of synthetic fibres and commitments to move away from them

2.1.1. Fashion's prolific use of synthetics explored

Despite increased scrutiny and the publication of scientific evidence pointing to the environmental devastation and health hazards associated with synthetic fibres, brands and retailers are still hooked on acrylic, elastane, nylon and polyester.



Our investigation into the prolific dependence on fossil-fuel-derived fabrics uses brand responses to our questionnaire, details from our previous *Synthetics Anonymous* report, as well as publicly available information to ascertain just how heavily addicted the industry remains.

As with our findings from last year, not a single company from the 55 global names included in our research has committed to completely phasing out the use of synthetic fibres, including recycled synthetics, and supported this with meaningful goals; however, Reformation committed to phasing out virgin synthetics by 2030 and reducing all synthetics (virgin and recycled) to less than 1% of total sourcing by 2025.

A tranche of companies (18 of 55; 32%) failed to disclose any substantial information on synthetics; neither volumes used nor as a percentage of total fibre use. Many of these companies also landed in the red zone in our investigation published in 2021. These brands include Asics, Burberry, Costco, Fast Retailing, Gildan, Gap Inc., Morrisons, Monsoon, Oakley Fashion, Reebok, Sainsbury's, SHEIN, Sweaty Betty, VF Corp (North Face and Timberland), Van Heusen, Walmart and Wrangler (part of Kontoor Brands).

We received a number of lacklustre answers to our questionnaire. Sainsbury's merely stated: 'Our synthetic fibre usage is shared only, in confidence, with "Textile 2030" as per our business commitment to that organisation', - a problematic lack of public disclosure.








Other retailers carefully avoided any mention of material mix or synthetic volumes used across their brand portfolio. For example, Gap Inc., the owner of Gap and Banana Republic claim that they are taking a 'portfolio approach' to sourcing natural fibres with no mention of synthetics, and that cotton represents the majority of their fibre consumption across all brands.¹⁷

Other companies share extremely limited data on their fibre usage in the public domain. For example, M&S only publish data on the percentage of polyester used and its ranking in proportion to total fibre mix.¹⁸ Target solely reports on the volume of recycled polyester included across consumer-facing categories.¹⁹ Patagonia is another company guilty of selective sharing on their use of synthetics. The outdoor brand discusses percentages of recycled polyester as a total volume, stating that '91% = percentage of polyester fabrics we made with recycled polyester this season'.²⁰ Similarly, sportswear giant, Nike, has opted to disclose detailed information for just two materials, polyester and rubber.²¹ VF Corp, parent group to The North Face, Timberland and Icebreaker simply provides broad-level data for a group of its 'top' materials, which include nylon, polyester, polyurethane and rubber.²² The selective responses to our questionnaire illustrate that brands are failing to be transparent about the scale of their synthetic use.

At a broad level only 33 companies shared both their synthetics volume as well as the percentage that this represents within their total fibre mix, either online or through engagement with us. From the 31 brands that did engage with our questionnaire, those that included their volume of synthetics as well as the percentage that this represents within their total fibre mix were Asda, Benetton Group, Boohoo, C&A, Dressmann, Esprit, G-Star RAW, Inditex, Kering brands (Balenciaga, Bottega Veneta, Gucci, Saint Laurent), Levi Strauss & Co., Lindex, Next, Puma, PVH Corp (Calvin Klein and Tommy Hillfiger) and Zalando.

Most notably, H&M Group did not disclose any volumes for their overall synthetics, highlighting their reluctance to be transparent about the scale of their procurement of these materials. Many of these companies clearly hold the data yet are averse to sharing publicly, with for example, Sainsbury's telling us they only share their fibre usage confidentially with Textiles 2030 (part of WRAP).

The below tables use public information or responses to our questionnaire to evaluate which companies are most reliant on synthetics with the data available. Ultra-fast-fashion brand Boohoo was identified as the company with the heaviest reliance on synthetics as a percentage of its total annual fibre used at 64% (Table 2.1), followed closely by VF Corp, Lululemon and New Look. This is aligned with the findings in our online shop analysis in *Synthetics Anonymous*, which found that 85% of items in Boohoo's Spring/Summer 2021 collection contained synthetics.²³ While VF Corp owns one brand, Icebreaker, that committed to be free of plastic-based fibres by 2023, the group as a whole is one of the biggest users of synthetic fibres.²⁴






Top ten brands that use the most synthetic fibres as a proportion of total fibre used	
Brand	Synthetics as % of total fibre used
 boohoo	64%
	63%*
 lululemon	62%
	60%**
 adidas	56%
PRIMARK*	43%
	36%
INDITEX	36%
	35%
next	34%

*Derived from 'top materials' nylon, polyester, polyurethane and rubber.
 **Derived from 2021 response.

Table 2.1: Top ten brands that use the most synthetic fibres as a proportion of total fibre used

Of the brands that disclosed volumes, Nike used significantly more synthetics than all others with 245,239 tonnes (t) purely based on polyester and rubber data, as the company does not provide detailed volumes on other synthetics (Table 2.2). This was nearly 38% higher than the retailer in second place for synthetic volume, which was Inditex as 178,030t, which is a startling figure given that Nike's disclosed volumes exclude other synthetics such as acrylic, elastane and nylon. This is also eight times the volume reported by Boohoo (30,616t), the brand with the highest percentage of synthetics as a part of its total annual fibre used.

Top ten brands that use the most synthetics by disclosed volume

Brand	Disclosed volume of synthetics (tonnes)
	245,239*
INDITEX	178,030
	66,248
PVH	32,936
boohoo	30,616
next	23,915
	23,524
	23,390
MARKS & SPENCER	22,156
George 	15,696

*Derived from polyester and rubber data.

Nike and Inditex were also the companies with the highest volumes of polyester used in their products, disclosing volumes of 166,343t and 131,548t, respectively. This was followed by Puma in third place with a significantly lower volume of 66,248t (Table 2.3).

Top ten brands that use the most polyester by volume

Brand	Disclosed volume of polyester (tonnes)
	166,343
INDITEX	131,548
	38,957
PVH	20,153
	20,000**
next	19,605
	16,644
boohoo	13,547
George 	11,963
TESCO	11,014

*Provided polyester volumes but not total synthetics.

**Derived from response of last year.

Table 2.2: Top ten brands that use the most synthetics by disclosed volume

Table 2.3: Top ten brands that use the most polyester by volume

Table 2.4: Top ten brands that use the most synthetics in their textile products

Top ten brands that use the most synthetics in their textile products

Brand	% of textile products made from synthetic fibres (blend or sole constituent)
boohoo	54%
adidas	51%
PRIMARK	35.3%
NEW LOOK	35%
next	28%
INDITEX	27%
	25%
	21.5%
George 	21%
	20.2%

Boohoo was the brand found to have the highest average polyester fibre composition in its textile products (54%) followed by Adidas (51%) and then Primark (35.3%) (Table 2.4).

2.1.2. Fashion's growing addiction to synthetics over the last five years

Fashion's synthetic fibre addiction has not undergone any significant rehabilitation over the last five years, according to our latest research. First, the lack of numerical disclosure and limited information from a significant group of brands about their relationship with synthetics insinuates that they may have something to hide. Twenty of 55 brands (36%) do not provide sufficient data on this. These organisations include Aldi, Costco, Gap Inc., Fast Retailing, lululemon, Nike, Monsoon, Oakley, Patagonia, Reebok, SHEIN, Sweaty Betty, Target, Van Heusen, VF Corp (The North Face and Timberland), Walmart and Wrangler.

The lack of disclosure makes it hard to ascertain whether their reliance on synthetics is increasing; however, using information communicated by brands in 2021, we could expect an increase in dependency. For example, in 2021, Monsoon noted that their synthetic usage has increased over the last five years and that they foresaw an increase in the future. Additionally, in *Synthetics Anonymous*, Nike stated that they decreased their volume of polyester by 15% but had increased the volume of synthetic rubber. While a decrease in the volume of polyester is welcome, it should be considered against the increase in Nike's overall production volumes of apparel and shoes. Nevertheless, without public disclosure on the increase in total production volumes, it is hard to ascertain whether this reduction is actually beneficial. Elsewhere, premium sportswear brand lululemon only publicly discusses increasing the volume of 'sustainable' materials, of which recycled synthetics are included.

This year, our research uncovered that 14 out of 55 brands (25%) have increased their use of synthetics over the last five years. Thus, amidst an accelerating climate emergency, one quarter of the industry's largest companies are recording a heavier reliance on fossil-fuel-derived fabrics. Brands who reported increases

in our questionnaire were Benetton Group, Burberry, Kering Group, Lindex, Morrisons, Puma, Sainsbury's and Zalando. Despite not engaging with us this year, last year's data revealed that Hugo Boss and ASOS also incurred an increase. Similarly, Kering Group stated that *'Our use of synthetic fibres has increased by 122% in the past five years, representing 2.57% of total raw materials used in production in 2021.'*

One cause for the industry's worsening synthetic addiction is increasing sales. Morrisons, Puma and Zalando all mentioned this in their response. Puma stated *'Our synthetic material volume increased as our sales increased'* and Zalando noted that the rise was due to *'an increase in the overall number of products sold.'* Shifts in clothing categories were another factor that sparked a rise in synthetics as Burberry attributed this increase to the expansion of their outerwear collection and Hugo Boss mentioned that their increase was due to formalwear.

Encouragingly, over one-third of brands (19 of 55; 34%) have decreased the volume of synthetics used as a total percentage of their collection over the last five years. These brands are Adidas, Asda, Bonprix, Boohoo, C&A, Calvin Klein, Dressmann, Esprit, G-star RAW, H&M, Inditex, M&S, New Look, Next, Primark, PVH Corp, Reformation, Tesco and Tommy Hilfiger; however, the contraction is marginal and should be considered against a net increase in sales. Boohoo reported a decrease of 2%, PVH Corp recorded 3% and Primark noted a 4.64% decrease since 2017. Similarly, Inditex reported that as a percentage of total fibres, synthetics have decreased from 39% in 2018 to 36% of total fibres used in 2021.

The response from Reformation highlights how the desire for infinite growth is still hurting fashion's chances of cutting back on synthetics. They stated that while they had decreased the percentage of synthetic fibres from 2.27% of total uptake in 2020 to 2.01% in 2021, *'because of business growth, the overall uptake in tonnes of synthetic fibres has increased from 9.22 tonnes in 2020 to 10.73 tonnes in 2021.'*

Elsewhere, Asics and Levi Strauss & Co. said that their synthetic use had either remained stable or marginally fluctuated over the last five years, with Levi Strauss & Co. recording variance in their absolute volume range from 5,000–7,000mt/year, accounting for 7.23–9.39% of total fibre procurement.

2.1.3. Which brands are planning to kick their habit in the future?

There is little transparency across the industry about its true intentions for synthetic fibre usage in the future. Of 55 brands, 27 (49%) have not issued a public statement that explicitly discusses their plans for synthetics. These brands include ASOS, Burberry, Gap Inc., Nike, Patagonia and SHEIN. The little that we do know is typically masked under goals to increase volumes of recycled synthetics, with no plans to reduce the fibre group.

Many spoke of replacing virgin polyester with recycled polyester. Empty statements are common; for example, SHEIN boasts that *'Shifting towards more sustainable materials such as recycled polyester, increasing recycled materials in packaging are important components of our sustainability strategy'*.²⁵ One of the US' largest retailers, Walmart has only set a public-facing goal to increase the volume of recycled synthetics and source 50% recycled polyester for private brand apparel and home textile products by 2025.²⁶ Similarly, Nike, which has been found in our research to use the largest volume of synthetics with publicly disclosed information, aims to have 50% of its polyester derived from recycled sources across its apparel and shoe categories by 2025 but does not mention plans to reduce all synthetics, recycled or otherwise.²⁷

Patagonia, famed for its environmental approach, has no explicit statement outlining its intentions to distance itself from synthetic products; they merely plan to replace virgin synthetics with recycled alternatives. The brand did not engage in the survey either this year or last year, however, in a brief email response with regards to this year's questionnaire, a spokesperson stated:

'Many of our products are made to perform in some of the harshest places on the planet, where proper equipment is an absolute necessity. It is currently not possible to meet those highly specific performance requirements without the use of synthetic materials. As such, we currently do not plan to phase synthetic materials out from our products and cannot complete the survey with full confidence answers will be portrayed to reflect that distinction. Our goal is to stop using virgin petroleum-based fabrics and materials by 2025.'

Worryingly, a handful of brands (seven of 55; 12%) that engaged with the questionnaire stated they would be increasing their use of synthetics. These organisations were Benetton Group, Bonprix, Boohoo, Levi Strauss & Co., Lindex, Morrisons and Primark. Reasons given by brands include an increase in the total number of products sold, lack of valid alternatives, as well as introductions of new categories heavily reliant on synthetics, such as yoga activewear.

Nearly one-third of companies investigated (15 of 55; 27%) stated they have plans to decrease their synthetic use in the future, and this included respondents to our survey such as H&M Group, Inditex, Kering Group, Puma and Reformation. Apart from the latter, these responses came without specific targets and timelines. They also need to be considered against the overall uptake in their production, such as H&M's plans to double sales by 2030.²⁸

Six brands, including C&A, Dressmann, Next and Zalando stated that they would maintain their reliance on synthetics in the future. Within its answer to the questionnaire, Next noted *'We anticipate it will remain approximately level, with our approach being to use more certified post-consumer recycled synthetic fibres which will help to decrease the quantity of virgin synthetic fibre needed.'*

Given that the EU Textile Strategy acknowledges the link between fast fashion and the growth in fossil-fuel-based synthetic fibres, as well as their contribution to microplastic pollution,²⁹ brands who continue to sustain their use of these textiles with no plans to decrease reliance in the future could be considered to be acting counter to the legislative trajectory indicated by the EU.

2.2. Opacity of the synthetic supply chain

Results from our survey illustrate that the fashion industry's understanding of its synthetic supply chain is poor or that brands are hesitant to release this information into the public sphere. A mere four out of 31 brands (13%) that engaged and completed the survey (7% of all brands included in the research), sent Changing Markets their supplier lists, which explicitly outline which companies provide synthetics and what type. These brands were Boohoo, Levi Strauss & Co., Next and Reformation. That said, Boohoo only sent their recycled synthetic supplier lists and did not provide data on their virgin synthetic suppliers. Of these four companies, only one made its synthetic suppliers publicly available, which is Next, who publish their Tier 3 suppliers on their website.³⁰

A number of brands shared their general supplier lists without specifying which were suppliers of synthetic fibres. The reality and scale of the gaping hole in synthetic supply chain disclosure is illustrated by the fact that 27 out of 31 brands (87%) that completed the survey did not provide adequate details on their synthetic suppliers.

A common option adopted by companies is to publicly share their Tier 1 and Tier 2 suppliers that cover manufacturing, processing and fabric mills. These lists are downloadable from their websites or selectively uploaded to the Open Apparel Registry, now called the Open Supply Hub (OSH). These companies included Bonprix, C&A, H&M Group, Lindex, Puma, PVH-owned brands (Calvin Klein and Tommy Hilfiger), Uniqlo

and Zalando. These organisations are quick to boast about their supply chain transparency, despite many not publicly disclosing anything beyond Tier 1. For example, C&A proclaims on their website how they are 'once again among leading brands' in the Fashion Revolution's Transparency Index, boasting that they are on the right track.³¹

Selective sharing is another trend, with brands sharing suppliers for only certain types of fabrics, which usually excludes synthetics. This is because the analysis shows that, for most respondents, they are at best either at the early stages of mapping their synthetic supply chain or they have not even begun the process. For example, C&A publicly share Tier 1 and Tier 2 lists via the OSH but responded stating that '[f]or synthetic fibres, we have not started yet systematically investigating into our deeper supply chain. As part of our strategy, we are planning to start with this process in 2023'. This is a cause for concern given that the retailer reported to us that synthetics amount to over 26% of their total annual fibre usage.

Dressmann, which publishes a group of suppliers via the OSH stated: '[w]e have not mapped the raw material suppliers of synthetic fibres.' There is a similar story for Tesco, who informed us that they are still in the process of mapping their suppliers and expect to publish their findings within the next 12 months.

Weak excuses were used by retailers who did not provide any supplier lists. This included Morrisons's Nutmeg who claimed they are 'in the process of introducing a QMP (Quality Management Plan) system, which will be able to capture this information, which is not currently available.' George at Asda merely stated that they do not hold this information. Similarly, Inditex, which claims it shares supplier and manufacture lists with the IndustriALL Global Union, did not provide us with any updated information and the only facility list available via the OSH dates to 2018. In its response, Inditex even recognised opacity issues of the synthetic supply chain, noting 'We are aware of the challenges that the industry faces in terms of upstream traceability for synthetics in Tiers 3 (spinning), 4 and 5.'

Inadequate disclosure characterised numerous answers about synthetic suppliers across both mass-market and luxury brands. Sainsbury's stated: 'We do not discuss specific supplier relationships' and supposed sustainability leaders Burberry and luxury fashion houses under the Kering Group failed to share any meaningful data.

This leads us to question whether fashion brands have any intention of disclosing their supply chains and whether their excuses about the challenges of supply chain mapping and promises of future transparency are legitimate. Our investigation, *Dressed to Kill*, was able to quickly establish direct and indirect supply chain links to major polyester producers for 39 brands surveyed using customs data and calls to suppliers, and from there onto the major fossil-fuel suppliers for these polyester manufacturers. Concerningly, this includes links to Russian oil, oil supplied by Saudi Aramco and even fracked gas from the US. The fact that we could establish these links as an external third party with no privileged access to internal data, and yet the companies are unable to do the same, speaks volumes as to where their priorities lie in terms of transparency and fossil-fuel divestment.

2.3. Is the fashion industry trying to recycle its way out of the waste crisis?

As discussed in chapter 2.1, the fashion industry is attempting to mask its addiction to synthetic fibres by doubling down on recycled synthetics, in particular recycled polyester and nylon.

In *Synthetics Anonymous* (2021), we reported that few brands had committed to fibre-to-fibre recycled synthetics, that there was limited investment in scalable solutions and an alarmingly heavy reliance on polyethylene terephthalate (PET) bottles as the main feedstock for supposed 'sustainable' materials. Little progress has been made in the last year. No goal related to recycled synthetic content has been paired with a commitment

and promise to decrease the overall volume of synthetics used in products. What is more, there is a notably lower level of company disclosure when it comes to recycled fibre content.

Reliance on recycled polyester as the sole policy for the management of synthetic fibres is also fast becoming a legal liability for retailers, as regulators and customers start to challenge misleading environmental claims. Since mothballing their infamous 'Conscious Choice' collection as a result from a warning from the Netherlands Authority for Consumers and Markets³², H&M Group have been subject to two class-action suits. The latest of which, in November 2022, cited false marketing of recycled polyester as sustainable and environmentally responsible materials and should act as a warning to many other brands in the sector.³³ It is also widely recognised that recycled polyester from plastic bottles is at best an interim solution, and at worst may even be exacerbating the waste crisis. Why then do they keep pushing this false solution as their only attempt at synthetics sustainability?

Publicly available data, responses to our questionnaire and information provided last year have been used to ascertain the extent to which the fashion industry is trying to recycle its way out of its sustainability challenges and greenwash the public about the benefits of such materials.

Currently, the majority of the industry's recycled polyester comes from plastic bottles. According to Textile Exchange, a mere 0.6% of the global fibre market came from pre- and post-consumer recycled textiles in 2021³⁴. What is more, the overall uptake of recycled fibres compared with total fibre production was recorded to be 8.5%, of which 7.9% originated from recycled polyester made from plastic bottles. In other words, a staggering 93% of all recycled fibres in 2021 were accounted for by polyester made from PET bottles.³⁵

The below tables illustrate which companies in the industry are using the most recycled fibre content and whether this is derived from natural or synthetic fibres. From available data, Levi Strauss & Co. and Inditex were found to be the retailers that used the largest volumes of recycled fibre content (Table 2.5). Among the top ten brands that used the most recycled content as a proportion of total fibres, Adidas was the frontrunner with 48%, followed by Esprit at 40% (Table 2.6).




Top ten brands that use most recycled content by weight	
Brand	Weight of total fibres that comes from recycled sources (t)
 LEVI'S	505,664
INDITEX	40,899
 PUMA	18,107
PVH	9,921
 George ASDA	9,561
 zalando	5,000
boohoo	4,964
 TESCO	4,786
 C&A	3,259
next	2,350

Table 2.5: Top ten brands that use most recycled content by weight

Top ten brands that use the most recycled content as a proportion of total fibres

Brand	Recycled content as % of total fibres used
adidas	48%
ESPRIT	40%
BURBERRY	35%
KERING	18.9%
LIND&X	18%
H&M	17.9%
George ASDA	16.74%
G-STAR RAW	13.7%
TESCO	10.7%
boohoo	10%

Table 2.6: Top ten brands that use the most recycled content as a proportion of total fibres

It is important to note that many are nearly completely dependent on recycled polyester, and by extension PET bottles, for their recycled fibre content. These brands include Morrisons (100%), Next (97%) and Puma (93%) (Table 2.7). When it comes to better use of recycled natural fibres, Reformation and Benetton Group used 68% and 62%, respectively of recycled cashmere, wool and cotton, as a majority of their recycled content (Table 2.8).

Fashion brands and retailers frequently write ambiguous statements about recycled polyester content, without providing full disclosure over their recycled content mix. It is often only by making independent calculations that a reader can deduce approximate volumes or percentages. For example, Gap Inc. discloses that recycled polyester accounts for 10% of total polyester used across all brands and that they have made 42% progress towards the goal of 100% recycled polyester by 2030.³⁶ VF Corp, the parent company to The North Face and Timberland only states that 24% of total polyester is recycled.³⁷

Online, Patagonia claims that '91% of our polyester fabrics were made with recycled polyester this season',³⁸ representing an increase from last year's 84%. Yet, we know little about how this relates to their total usage of other recycled fibre content. Aldi, which does not publicly share any information on fibre mix, stated in an email response to us that '13.4% of recycled fibre is synthetics' without further indication of what percentage could be attributed to polyester and nylon.

Lululemon has historically been ambiguous on this topic but, for the first time, this year has published more granular data on fibres used. They state they have used 4,655,000kg of recycled polyester (4,655t) and that this accounts for 50% of total polyester,³⁹ however, the brand does not provide details on other recycled fibre content and how this sits within total annual fibre usage, both virgin and recycled.

For brands that shared data on both the percentage of recycled fibres as a proportion of total fibre used alongside the percentage of natural recycled fibres as a percentage of all recycled fibres, we were able to identify in reality, how much recycled natural fibres actually contribute to total annual fibre usage. Our findings reveal this proportion is relatively low. Kering Group is the organisation that uses the most recycled natural fibres as

Table 2.7: Brands that use the most recycled polyester as a proportion of their total recycled fibre content

BRANDS THAT USE THE MOST RECYCLED POLYESTER AS A PROPORTION OF THEIR TOTAL RECYCLED FIBRE CONTENT

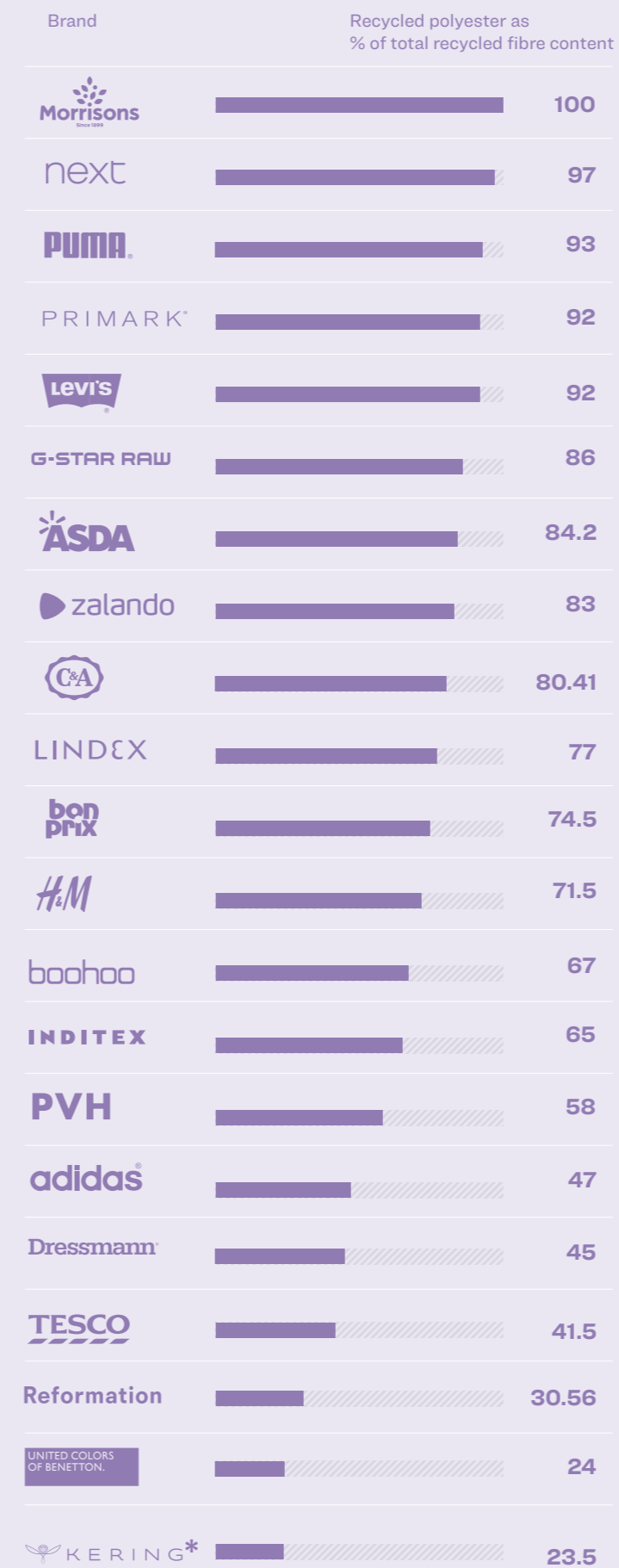


Table 2.8: Top ten brands that use the most natural fibres as a proportion of total recycled fibre content

TOP TEN BRANDS THAT USE THE MOST NATURAL FIBRES AS A PROPORTION OF TOTAL RECYCLED FIBRE CONTENT



^b Percentages are reported as disclosed to us, although some companies % total more or less than 100%.

a percentage of total fibres (10.4%) followed by H&M Group (4.36%), Reformation (4.17%) and Inditex (2%). Primark, a brand quick to emphasise its use of recycled cotton in marketing campaigns, uses 0.147% recycled natural fibres as a total of its annual fibre usage.

Similarly, for the brands that engaged and shared details on the proportion of recycled fibres as a percentage of total fibres and the percentage of recycled polyester as a proportion of all recycled fibres used, we assessed how dominant recycled polyester was within a given brand's total fibre mix. From disclosed information, the retailer that used the most recycled polyester as a percentage of total fibres was C&A (28.8%), followed by Adidas (22.6%), Reformation (21.8%), George - Asda (14%) and Lindex (13.8%).

BOX 2.1: What's driving fashion's desire for recycled synthetics?

What is the driving force behind this flurry of recycled synthetic and recycled polyester targets? The Textile Exchange's 2025 Recycled Polyester Challenge has garnered support for its aim to have the industry share of recycled polyester increase from the current average (14%) to 45% by 2025.⁴⁰ The challenge encourages its 132 members to set their sights on 80–100% recycled polyester content. Membership in the challenge has become another talking point for the industry's green marketing campaigns. Although, as a voluntary initiative, it has no enforcement mechanism, fines or penalties for those that fail to reach these targets by 2025.

Fifteen out of 55 (27%) companies reviewed in our research are involved in the challenge. This includes Adidas, Gap Inc., G-Star RAW, H&M Group, Inditex, lululemon, M&S, Puma, Reformation, Target Corp., Tesco, Varner (Dressmann), VF Corp, The North Face and Timberland. In its first impact report, published this year, Textile Exchange reports that 56% of its signatories have committed to replacing 100% of virgin fossil-based polyester with recycled by 2025. Alarming, the report indicates that just under half were able to report on total polyester volumes for 2019–2020 and that only 41 of 132 (31%) companies that joined the challenge reduced their total polyester fibre volume from 2019 to 2020.⁴¹

Another incentive for brands to increase their share of recycled synthetics may also be companies' climate targets. Yet, while recycled polyester requires 59% less energy to produce, but still more than cotton, and emits less carbon dioxide than its virgin counterpart, these figures do not take into account the impacts of the original virgin plastic bottle production.⁴²

2.4. Recycling processes and feedstock

Due to the lack of any significant developments over the last year, findings on recycling processes and synthetic feedstock mirror the key takeaways from *Synthetics Anonymous* in 2021.

On processes, mechanical and chemical have proved to be the most popular ways of creating recycled synthetics. According to Textile Exchange, most polyester is currently mechanically recycled from PET bottles, while the market share of chemically or biologically recycled polyester is still miniscule (<1%). In fact, in 2021 around 99% of the recycled polyester was PET bottle-based.⁴³

Brands and retailers report using an array of feedstocks, ranging from PET bottles, industrial plastic waste, pre-consumer and post-consumer textiles, as well as recycled clothing and fishing nets – predominantly associated with the use of ECONYL®. Many are keen to source their recycled synthetics from verified sources under the Global Recycling Standard and Recycled Content Standard issued by the Textile Exchange.

Every brand that uses recycled polyester named PET bottles as their predominant feedstock. For recycled elastane and recycled acrylic, Asda shared that they use fibre-spinning waste as feedstock. Asda was one of the few companies that provided details of the breakdown of feedstock content, stating that their recycled polyester is derived from 78% PET bottles and 12% textile waste. H&M Group data provided a similar picture of the feedstock mix as they used 90% PET bottles and 10% recycled textile waste (pre-consumer and post-consumer) for recycled polyester. Patagonia says it is hoping to shift its sources of feedstock in the future and states that '*We're looking beyond plastic bottles from commodity recyclers to the next generation of potentially recyclable materials, such as recycled ocean plastics.*'⁴⁴ In a short film produced about the harms of synthetics, the brand attempts to position its use of plastic bottles as different from the rest of the fashion industry as it states that Patagonia considers longevity, while others who use the same recycled plastic bottles are doing it '*cheaper, faster, and at a greater scale.*'⁴⁵

It is interesting to note that many brands lack visibility for data on their feedstock. This correlates with the low levels of transparency within the fashion industry over its synthetics supply chain as we uncovered in *Dressed to Kill*. Dressmann reported that '*Feedstock is not listed on the transaction certificates for GRS or RCS, so source is unknown.*' Esprit stated, '*We do not track the feedstock data at a product level*' and C&A said that '*In most cases, PET bottles should be used. However, we do not gather this information systematically for every product.*' European retailer Zalando avoided the question, responding that '*We understand the implications of sourcing from certain feedstock and seek to focus on fibre-to-fibre recycling. As part of our process moving forward, we will collect better data on the current feedstock to enable fibre from our investments to be allocated to the correct locations.*' A seemingly telling statement that suggests they have much work to do.

2.5. Limited investments in fibre-to-fibre recycling solutions stunt fashion's ability to close the loop

While 83% of brands in our research have goals to increase the use of recycled synthetic content, a significantly lower percentage of brands are investing in genuine fibre-to-fibre recycling technology.

Of the 55 brands, 24 (43%) claim in public or disclosed to us that they are investing in some form of initiative that is looking to accelerate fibre-to-fibre recycling. These brands were Adidas, Asics, Burberry, C&A, Fast Retailing, Gap Inc., H&M Group, Hugo Boss, Inditex, Kering Group, Levi Strauss & Co., lululemon, Patagonia, PVH Corp, Reformation, Target and Wrangler.

This activity ranged from working with organisations such as Ambercycle, Caritas, Circulose, Infinna, Re:New-Cell and Worn Again Technologies, through to research partnerships with the Hong Kong Research Institute of Textiles and Apparel (HKRITA) and Accelerating Circularity. Kering Group also mentioned piloting a new textile-to-textile technology that can chemically recycle polyester via glycolysis and that it is nearly scalable. Some of these solutions are focused solely on cotton, such as Infinna, whereas Worn Again has the aim to turn pure *and* blended polyester and cotton textiles back into virgin equivalent through its polymer recycling technology and Ambercycle claims to have a '*molecular regeneration process, we separate components in complex textiles to create pure raw materials from traditionally difficult-to-recycle streams.*'⁴⁶

Few brands disclosed the total amount invested in such technologies or projects that aim to reduce dependencies on virgin synthetics. These were H&M Group, Hugo Boss, Reformation and Tesco via their websites.


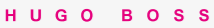


Brand	Disclosed/publicly available information about amount invested over last five years	Investment activities	Annual revenue (where known)	Annual recycling investments as a percentage of revenue
	2022 – 1.5 million (EUR) 2021 – 3.7 million (EUR) 2020 – 2.5 million (EUR) 2019 – n/a 2018 – 1.5 million (EUR)	Through their investment arm Co:lab, H&M communicated they have around 20 investments in new companies, including Ambercycle, Infinited Fiber and Re:newcell,	€9.58 billion	0.04%
	\$5 million	Equity investment into a strategic partnership with HeiQ AeonIQ, a company that produces a cellulosic filament yarn that mimics the properties of polyester and nylon	€2.78 billion ⁴⁷	0.174%
	€200,000	In-house fabric scrap recycling programme, membership with Material Innovation Initiative, and their Ref Recycling programme, which includes a partnership with Loopworks and Super Circle	Reportedly >\$150 million ⁴⁸	0.13%
	€20,000	Fashion for Good's Sorting for Circularity Project	£61.3 billion ⁴⁹	n/a

Table 2.9: Brands' investments into fibre-to-fibre technologies

Reformation told us that they had invested €200,000 over the last five years into fibre-to-fibre recycling efforts, which included an in-house fabric scrap recycling programme, membership with Material Innovation Initiative and their Ref Recycling programme, which includes a partnership with Loopworks and Super Circle. Tesco has allocated €20,000 to Fashion for Good's Sorting for Circularity Project, which is still in its research stage.

Elsewhere, Hugo Boss stated that it has made a \$5 million equity investment into a strategic partnership with HeiQ AeonIQ, a company that produces a cellulosic filament yarn that mimics the properties of polyester and nylon.⁵⁰ In FY21 Hugo Boss reported sales of €2.78 billion; therefore, this investment represents 0.174% of total sales.⁵¹

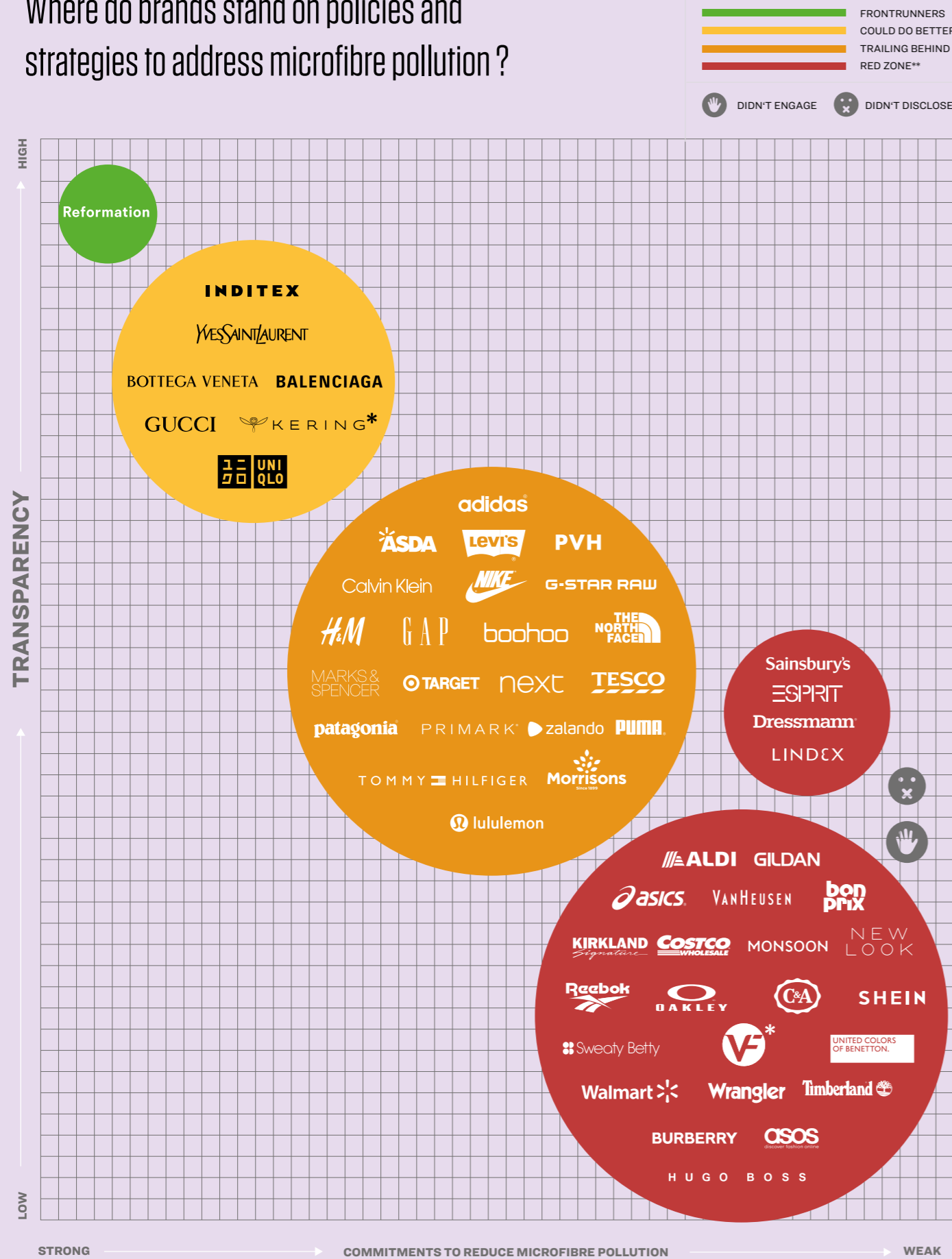
H&M Group shared the value of direct investments and investments in research and development for each year since 2018, noting that in 2021 this hit €3.7 million. These funds have been redirected towards compa-

nies such as Ambercycle, Infinited Fiber and Re:newcell. It should be kept in mind that H&M Group recorded a gross profit of £8.34 billion (€9.58 billion) in its last financial year⁵² – so this investment seems marginal (0.04%) given how much the organisation claims they want to find solutions.

Additionally, there are limitations to many of the innovations claimed to be 'transforming' the industry, as none of these technologies are yet of a scale that could mitigate the negative impact of fashion's eye-watering levels of production. The H&M loop machine, launched in 2020 epitomises this predicament as it was intended to showcase the retailer's efforts towards textile circularity by shredding old garments and using these fibres to knit new ones;⁵³ however, it could be dubbed as a gimmick and circularity washing as set out at Changing Market's greenwash.com.⁵⁴ The machine is unable to separate synthetic polyester blended garments, which the industry relies so heavily upon. It is also estimated that it would take approximately 50,000 years for this machine to process a week's worth of clothing, with the knowledge that approximately six million garments are put on the market each week.⁵⁵

At COP27 in November 2022, global fashion brands, including Stella McCartney and H&M, announced a collective commitment to purchase 550,000 tonnes of low-carbon, low-footprint alternative fibres made from waste textiles and agricultural residues instead of forest fibres for fashion textiles and paper packaging.⁵⁶

Where do brands stand on policies and strategies to address microfibre pollution?



This is a simplified representation of companies' performance and not a ranking. More detailed information is available in the league table in Annex IV.
 * Parent groups VF Corporation, PVH Corporation and Kering are included for references purposes only, because they replied on behalf of their brands or policies are set at the group level.
 **Many brands in the Red zone landed there due to lack of transparency and disclosure, rather than necessarily lack of policies.

3. How are brands addressing microfibre release?

In 2021, *Synthetics Anonymous: Fashion brands' addiction to fossil fuels* uncovered how few clothing companies are making tangible steps towards mitigating the release of microfibres from textiles. Our findings this year illustrate that little progress has been made since, whereby a total of 25 of 55 brands (45%) do not have any public information about their policies on microfibres. An overreliance on membership of voluntary initiatives, 'cross-functional working groups' or participation in research projects, as well as tendencies to procrastinate until more research is done characterise the responses. Stalling statements from Zalando such as 'We are keen to learn more about the environmental impact of microfibres and work with others to find industry-wide solutions. We are aware that this is a relatively new topic to address' succinctly capture the extent of lack of progress.

Our enquiry this year sought to understand the tenets of each brand's microfibre policies, if they even exist at all. Alongside details on membership of multi-stakeholder initiatives, we requested information on their commitments to phase out synthetics as a precautionary principle and phasing out synthetics specifically from children's collections. We also queried whether measures are in place on industrial pre-washing and wastewater filtering or whether companies had set measures and maximum thresholds for the number of microfibres released during production, use and end of life.

From our results, membership of multi-stakeholder initiatives was the dominant category on how a retailer formulates its stance on microfibres. Of 55 companies, 29 (52%) were found to be participants in these industry or research initiatives, which included TMC, Zero Discharge of Hazardous Chemicals (ZDHC), Textile Exchange, HKRITA, the Outdoor Industry Association and the Japan Clean Ocean Material Alliance.

The industry is most engaged with TMC, and 27 out of 55 brands (49%) and global players, including Adidas, H&M Group, Kering Group and Patagonia are among the signatories. This includes new signatories such as PVH brands, Calvin Klein and Tommy Hilfiger, as they reported to us that they would be joining the consortium in 2022. A handful of companies have more involvement than others, for example Adidas is a co-founding member and H&M Group sits on the advisory board. This level of integration arguably caps the independence of TMC as an initiative and could give brands sway over important decisions related to microfibres. It is striking that of the 32 of 55 brands that had some sort of statement or response on microfibres, 27 of them (84%) are members of TMC.

Figure 3.1: Ranking of how brands' are addressing microfibre release

As explored in our recent report *License to Greenwash*, membership of the listed initiatives has not led to any progress in curbing the growing challenge of microfibre pollution and thus is not considered a sufficient measure in our ranking. TMC is a high-profile initiative but is in fact limited in scope, for example by focusing more on microfibre shedding at the pre-consumer phase, has transparency issues and has failed to deliver significant positive impact since its inception in 2018⁵⁷. The initiative has also failed to publish peer-reviewed research, yet signatories are convinced of the value of its research. M&S solely mention TMC in their short statement on microfibres, noting '*As a member, we are aiming for effective solutions to mitigate textile fragmentation by 2030*'.⁵⁸ In its latest impact report, lululemon also claims that TMC '*facilitates practical solutions to help the textile industry minimize fibre fragmentation and release into the environment from manufacturing and the product lifecycle*';⁵⁹ however, we are yet to bear witness to such solutions.

Another theme identified was that brands are keen to talk about the damaging nature of microfibres in online content and are quick to educate their customers about how they can reduce microfibre release, shifting the responsibility to consumers; however, these very same brands fail to publish any concrete policies on microfibres in the public domain. For example, premium sportswear brand Sweaty Betty has online posts dedicated to promoting the benefits of a Guppy Friend to catch microfibres⁶⁰ or details on how to celebrate World Oceans Day⁶¹ and reduce plastic waste. Yet, it does not have a single goal set related to decreasing microfibre release from its synthetic sportswear. ASOS has a Circular Design Handbook⁶² that is descriptive of the problems of microfibres but provides this without formulating any tangible actions to reduce these challenges. Elsewhere, VF claims it has '*engaged with consumers on this issue by investing in microfiber shedding research and consumer-facing educational material*', but this has not resulted in any impact to date or set targets informed by outcomes of this working group.⁶³

While Patagonia's comprehensive microfibre research projects are listed online, the brand does not have a clear policy with specific targets related to reducing microfibre release. Blog content on microfibre pollution⁶⁴ and the commissioning of studies are helpful, but without clear goals derived from this research, the brand is arguably delaying mass action and given the brand's notoriety as a sustainability 'leader', it has the power to guide the industry by example.

Retailers with more robust public statements on microfibres or responses to the questionnaire were Adidas, Inditex and Nike. In its survey response, Inditex provided us with a comprehensive list of actions to mitigate microfibre release, beyond membership of multi-stakeholder initiatives and research. Their work includes developing filtering systems for dry cleaners, laundries and wastewater treatment plants as well as making it a mandatory requirement for all wet processing facilities in the supply chain to manage filtered textile waste as solid waste in their Green to Wear Standard.

Of all the brands, Nike has one of the most comprehensive microfibre statements that is publicly available. It covers a global standardised testing methodology, testing and research, supplier engagement, industry engagement and consumer solutions. It talks about similar methods, including membership of TMC, internal research conducted by Nike Chemistry teams and scaling ZDHC Wastewater Guidelines across their supplier base; however, Nike shares no results coming from the mentioned research and has not set any concrete mitigation actions.

Adidas seems to exert efforts beyond its membership of TMC. For example, the sportswear giant has set targets for suppliers on managing their wastewater discharge performance and told us '*To support facilities in their continuous improvement on wastewater discharge quality, we rolled out an effluent treatment plant evaluation that supports them to strengthen their quality controls on wastewater discharge*'.

Analysis of the responses from the 31 brands that responded to our survey also tells us about their priorities when it comes to the topic of microfibres. Reformation was the only brand of 31 (3%) who said that it would phase out the use of synthetics as a precautionary principle, starting by reducing all synthetics to less than 1% of total sourcing by 2025. On the other hand, TMC, which includes 27 brands in this research, denies that synthetics should be more problematic than natural fibres and does not explicitly support the precautionary approach. In its recent progress report, TMC argues that biodegradability of natural fibres cannot be guaranteed, partly because the presence of dyes and chemicals can inhibit the biodegradation process and ultimate conditions cannot be ensured by default. Their argument completely disregards the fact that synthetic fibres already account for 69% of all textiles produced in the world and will account for almost one-third of fibre production by 2030, representing a significant source of microfibre pollution. They are also made from fossil fuel, meaning that they are fundamentally not biodegradable - they persist in our oceans, soil, air and even bodies. A recent study concludes that inhalation or ingestion of microplastics causes chronic inflammation of the lungs (known to be a leading cause of diseases such as cancer, heart disease, asthma and diabetes) and intestinal inflammation, as well as irritable bowel disease.⁶⁵

Elsewhere, only Fast Retailing Group, Kering Group brands and Next answered that they would set measures and maximum thresholds on microfibres released during a product's life cycle. In a 2022 summary of a Kering Annual General Meeting, the group included a target to have zero microfibre discharge by 2030.⁶⁶ The gaping holes in brands' microfibre policies include rules on pre-washing and wastewater filtering. From survey respondents, only Fast Retailing Group, Inditex and Kering Group claim to have policies on this and from those who did not respond or engage with the survey, no single microfibre statement found online or in response to our questionnaire said that they were phasing out synthetics, even from children's collections.



4. The afterlife: What policies are in place to address the end-of-life management of synthetics?

Our questionnaire enquired whether a given company promotes durability of textile products, designs with recyclability in mind and finally, whether they make investments in the separation collection of textiles for recycling, repair or reuse.

Our findings on end-of-life management are limited by the lack of disclosure from certain retailers. Fourteen of 55 brands, nearly one-third, did not engage or publish sufficient information that speaks to actual policies. These companies included Aldi, ASOS, Boohoo, Gildan, Kirkland Signature - Costco, Monsoon, New Look, Oakley, Reebok, SHEIN, Sweaty Betty, Tesco, Van Heusen and Walmart. While ASOS has published a circular design guidebook,⁶⁷ there are no clear set priorities for the business. Tesco acknowledged that while they do not yet have a policy document on end-of-life management, this is something they are looking to build on in the future as part of their environmental, social and governance (ESG) framework.

Two of the policies touching on synthetics end-of-life management proved to be more popular than others. Of the 55 brands, 27 promote durability and encourage reuse among their stakeholder networks. For example, Kering Group informed us that all the Group's houses offer their clients a legal warranty on the product and repair services to maintain the quality of their products and ensure their longevity. Benetton Group cited their 'B-Long' strategic project, which has been developed to *'ensure the compliance with its quality standards and the durability of its materials.'*

Investment in the separation of post-consumer textiles for recycling was the second area of end-of-life management where brands claim to be taking action. Overall, 26 of 55 brands claim they have some form of policy in place; however, some are more practical and impactful than others. Inditex provided a comprehensive answer, including multiple initiatives to reduce the impact of synthetic garments at their end of life. For example, they are working with Euratex recycling hubs to develop centres specifically for textile waste. They are also participating in a Circular Fashion Partnership with Global Fashion Agenda and Reverse Resources to develop textile recycling infrastructure in Bangladesh. The retailer has created the Inditex Circularity Seed fund to finance projects with MIT Spain aimed at developing recycling initiatives.

Credits: Shutterstock

Elsewhere, Gap Inc. has partnered with HKRITA on pilots that work to remove spandex safely from garments⁶⁸ and Nike is collaborating with scientists at the Rochester Institute of Technology on a programme named 'Development of an Automated Method for Disassembly and Separation of Apparel for Recycling'.⁶⁹ The sportswear brand is rolling out specific products, such as Nike Link and Link Axis shoes, which are designed to be taken apart.⁷⁰ Many companies, including Adidas, point to research projects they are participating in, which are working to understand textile waste streams, sorting technologies and developing recycling ecosystems in Europe; however, we are not provided with timeframes on how long it will take to leverage the findings from this research to then invest and build scalable separation and recycling infrastructure.

Several brands' efforts on synthetics end-of-life management are disappointing and are not consummate with their green claims or the volume of garments that they produce. For example, Boohoo and Burberry, neither of whom have any end-of-life policies, stated that they are currently in conversation with a local council on potentially piloting a kerbside textile waste collection scheme. Sainsbury's, which also has no policies in place, merely commented 'We encourage returns and reuse through our partnerships with Oxfam and New Life' - referring to their take-back schemes.

4.1. Rethinking fashion's overproduction-based business model

For all the talk of circular design and circular business initiatives, no brand included in our research explicitly discusses a transformation of their business model, focused on reducing production volumes of synthetics or curbing overproduction.

We received a range of answers describing attempts from brands as they try to seemingly move towards alternative business models that could shift the industry away from overproduction. While some focused on leveraging technology for supply chain efficiency, others mentioned circular business models and take-back programmes. Few were deemed sufficient for meaningful change.

Fashion rental, resale and repair have their part to play in encouraging mindful consumption by citizens; however, an abundance of brands are now jumping on this bandwagon to greenwash their environmental credentials. Recommence, if not coupled with an increase in quality and a reduction in production volume of clothes, is arguably redundant, and partnerships with resale platforms with limited sustainability strategies are also capped in impact. SHEIN unveiled its new resale programme in October 2022,⁷¹ providing an exemplary case of how 'alternative' business models have been greenwashed.

Patagonia is one of the only brands included in our study found to express its desire for its resale platform to replace future production of new products and has been 'aligning the organisation and resale growth targets with that goal in mind'.⁷²

Numerous responses discussed supply chain management for better efficiency without addressing the business models that could discourage overproduction of synthetics. Asda commented 'we have recently implemented radio-frequency identification (RFID) into our systems which will enable us to have a more accurate view of stock we have in transit, in our distribution centres and on our shop floor'. C&A simply describes its approach to forecasting adjustments in line with demand, whereas Levi Strauss & Co. shares that it is using 'Artificial intelligence (AI) and digitization to bridge gaps between forecasted product needs and reality through more detailed demand forecasting'. Small efficiency gains like this will not address fashion's integral overproduction problem.

The most worrying and misleading narrative on alternative business models originates from fast-fashion behemoths such as SHEIN and Boohoo. This is centred around 'small-batch production' created in short lead

times as an alternative business model to better service demand of customers and cut waste; however, this is far from the case, given the 700 and 1,000 new items added daily. In April 2022, it was reported that from January to April of this year, SHEIN had added 314,877 new⁷³ styles to their US website, compared with 18,343 new styles uploaded by Boohoo in the same time period.⁷⁴ In 2020, Vice also recorded that Boohoo added 772 new garments over the course of a single week, introducing 116 new garments each day on average.⁷⁵ Moreover, investigation by Greenpeace Germany in November 2022 found that 15% of SHEIN's products contain concentrations of hazardous chemicals that breach EU regulatory limits, further exposing the environmental and human health risks of SHEIN's fast-fashion model.

Yet, Boohoo shared with us that 'We use a test-and-repeat approach. Our production runs are small and we only order more of the products our customers like. This means that we don't over-order or hold excess stock which helps to reduce waste.' Statements like this fail to acknowledge the volumes of post-consumer waste they are creating. Especially considering Boohoo has also been one of the brands dropping the price of their items around Black Friday sales - to as low as £1, questioning the environmental and human cost of making their garments and indicating how far they are from ditching a business model based on producing volumes of disposable synthetic clothing that will end up as waste. Similarly, SHEIN is attempting to craft a sustainable image under the justification that under its business model it only creates limited numbers of one item. On SHEIN's website it states that 'We believe that reducing supply chain waste and investing in modern production techniques are key starting points to building an environmentally sustainable industry. At SHEIN, we harness our fully integrated digital supply chain to limit excess inventory, reducing the possibility of production waste'.⁷⁶

The dearth of viable business models deployed by the fashion industry to mitigate overproduction of synthetics could in the future nullify any benefits of the well-intentioned policies on synthetic end-of-life management and research being carried out.

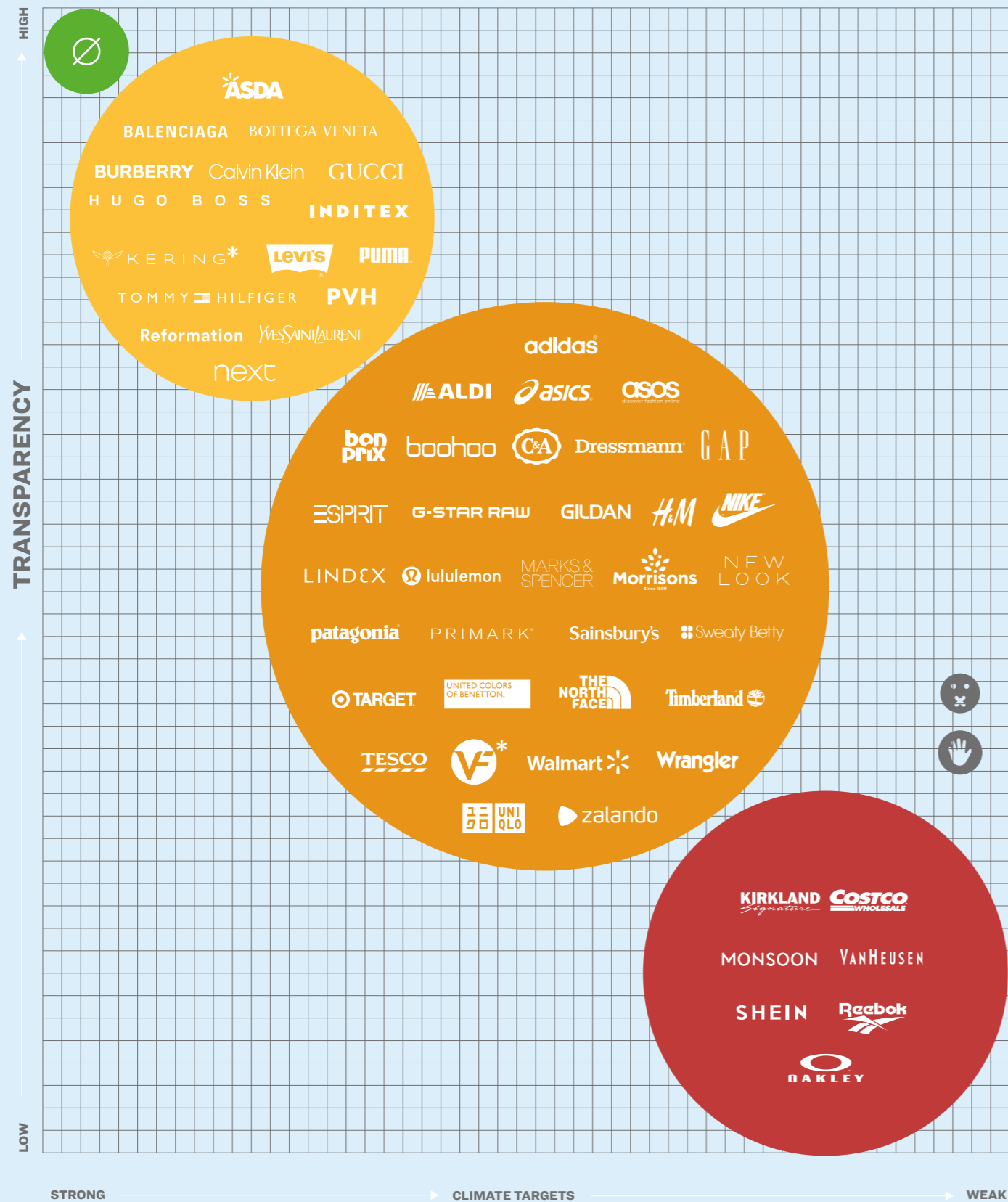
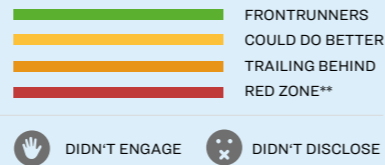
BOX 4.1: Black Friday mania

Of the 55 brands analysed, 43 had a Black Friday or Cyber Monday sale. At least 16 (37%) of these brands had discounts of up to 50%, 26 (60%) were selling items for £10 or less and 21 (49%) were selling items for £5 or less. ASOS had the highest discount percentage available on their Black Friday offers online, with a high of 80% off. On Black Friday, ASOS had 5,310 items on sale, of which 979 were sold with at least a 70% discount. The cheapest item sold on their site was a lightweight jersey cami made of 90% viscose and 10% elastane, selling for just £2. SHEIN continues to scrape the barrel, selling items as low as £0.19 and promoting that an alarming quantity of 'more than 50k items have just dropped' on their website. This comes despite their claims that their small-batch production is more sustainable. Fashion brand Next had a 50% discount off most sale items, with the lowest priced item at £2.



Credits: Shein online Black Friday sale.

Where do brands stand on climate targets?



5. Where does the fashion industry stand on its climate targets?

The fashion industry's endless chum of cheap synthetic products and obsession with growth calls into question the genuine nature of climate targets set by global brands and retailers. A business-as-usual approach, with the likes of H&M Group promising to double sales by 2030, while also committing to halve its carbon footprint,⁷⁷ underscores the mixed narrative that characterises fashion's climate targets.

At the beginning of November 2021, ahead of the COP26 climate conference, the Changing Markets Foundation wrote to 20 fashion companies, including Adidas, Boohoo and H&M, with three demands to decrease their reliance on fossil fuels. We requested:

- complete transparency from fashion brands on their use of fossil fuels by December 2022;
- a 20% reduction set to a 2021 baseline in the use of fossil fuels in materials by 2025 and a 50% reduction by 2030; and
- science-based climate targets to cut all greenhouse gas (GHG) emissions across their supply chains by at least 55% by 2030.

A year on, we sought to assess the progress that has been made to date through responses to our survey as well as through publicly available online information. Our analysis revealed that eight brands had no climate targets published online. These companies were Kirkland - Signature Costco, Oakley Fashion, Reebok, SHEIN, Van Heusen and Wrangler (part of Kontoor Brands).

Of the brands with no targets, three companies stated that they were in the process of formulating targets and would release these in the near future.

We found that not a single company assessed had explicitly committed to cutting their absolute GHG emissions across their entire supply chains by at least 55% by 2030. Most Scope 3 targets have been set for reductions of 30% by 2030, nearly half of what was requested by Changing Markets last year.

Figure 5.1: Ranking of where the fashion industry stands on its climate targets

This is a simplified representation of companies' performance and not a ranking. More detailed information is available in the league table in Annex V.
 * Parent groups VF Corporation, PVH Corporation and Kering are included for references purposes only, because they replied on behalf of their brands or policies are set at the group level.
 **Many brands in the Red zone landed there due to lack of transparency and disclosure, rather than necessarily weak climate targets.

Patagonia has the commitment to be carbon neutral by 2025⁷⁸ but does not share any details on its Scope 3 emissions reduction plan. Similarly, ASOS claims that it will be Net Zero across its value chain by 2030 with scant detail on exact Scope 3 targets.⁷⁹

A number of brands have linked their Scope 3 reductions target to intensity as opposed to absolute targets, meaning that they can still grow their emissions so long as emissions 'per unit' (be that product or unit of revenue) is decreasing. These were not considered compliant with requests made by Changing Markets, with the UN report on Net Zero targets, nor is it a reasonable strategy for addressing emissions (see Box 5.1). Lululemon and Kering Group have set intensity reduction targets for Scope 3 emissions that exceed 55%. Several brands have linked their Scope 3 reductions target to revenue as opposed to absolute targets. For example, Varner Group – parent company to Dressmann, has the goal of 55% reduction in Scope 3 emissions per million NOK annual revenue by 2030.⁸⁰ Elsewhere, Puma states that it wants to reduce Scope 3 GHG emissions from purchased goods and services 60% per million-Euro sales by 2030.⁸¹

It is alarming that brands that are meticulously working to craft a reputation as sustainable, are in fact increasing their emissions, in particular their Scope 3 emissions. These companies include Boohoo, Esprit, Lindex, lululemon and Walmart; however, brands with no public disclosure about their carbon footprint could be guilty of this too. In their answer Boohoo stated that from 2020 to 2021 their emissions increased by 29%, primarily due to the growth of their business operations and the global freight crisis. They said they are identifying carbon reduction actions such as freight efficiencies, powering direct operations with 100% renewable energy, and engaging with suppliers to increase renewable energy use in supply chain, but not a single listed action includes a reduction or phase-out of synthetic fibres.

Premium sportswear brand lululemon has revealed the increase in the level of emissions and carbon intensity in its latest impact report. In 2021, its Scope 3 emissions intensity increased by 4% from the 2018 baseline and the total Scope 3 emissions (in tCO₂e) has increased from 674,469 in 2020 to 923,894 in 2021 (+36%). This exceeds the 2018 baseline by a significant volume, given that this baseline stands at 516,625⁸²(+79%). Through their supply chain research, non-profit Stand.Earth has also reported that 48% of the collective energy used by the factories across Asia that make lululemon's products originates from coal and that only 5% of the energy powering these factories comes from clean renewable energy.⁸³

Elsewhere, Esprit admits that its Scope 3 emissions have increased, caused by an '*increase in air shipments*',⁸⁴ which the brand justified due to supply chain disruptions sparked by the COVID-19 pandemic. According to its sustainability report, Lindex has increased Scope 3 emissions by 12%.⁸⁵ Lindex's rationale is that as volumes fell during the pandemic, recovering volumes in 2021 increased the total Scope 3 emissions.⁸⁶ It also defends this increase by stating that its emissions per piece stayed consistent.

Our evaluation of brands' climate targets revealed a recurring theme whereby Scope 3 emissions were missing from targets and reduction plans. This is hugely problematic given that the lion's share of GHG emissions is emitted up and downstream of the supply chain, as opposed to in a brand's direct operations. Climate targets were also found to be in contradiction with the UN report on Net Zero commitments of non-state actors, which sets a powerful new standard for any companies that set climate targets and commitments) (see Box 5.1).⁸⁷

In their annual report, Gildan, which did not engage with our questionnaire, has committed to '*reducing our Scope 1 and Scope 2 GHG emissions by 30% by 2030 (compared to a 2018 baseline)*',⁸⁸ omitting Scope 3 entirely. This is a similar picture to Asda, one of the UK's largest supermarkets and owner of clothing label George. Its targets are to halve Scope 1 and 2 emissions by 2025 compared with a 2015 baseline, but Scope 3 targets are currently missing. In its first ESG report, it has set the goal to '*Develop measurement of non-direct Scope 3 emissions, then set targets to 2025*',⁸⁹ a timeframe that is arguably too late.

An unusual answer was provided by Bonprix, part of the Otto Group, which seems to be cherry-picking exactly what is included in its climate targets and reporting. It has not yet formulated an absolute emissions goal but on the other hand has been able to set a target to reduce 40% of specific GHG emissions by 2025 compared with a 2018 baseline. It states, '*we include Scope 1, Scope 2 and some Scope 3 emissions because it covers employee mobility (business travel, company and fleet cars) and emissions from external computer data centres and cloud services*'; however, the significant supply chain emissions from raw material procurement are not included.

It is positive to note that two of the industry's largest players, H&M Group and Inditex, both report on progress towards goals. In their response to our questionnaire, H&M Group stated that '*By 2021 we have reduced Scope 1 and 2 emissions by 22% and Scope 3 emissions by 9% compared to 2019*', while Inditex said that '*Our Scope 1 and 2 GHG emissions have been reduced by 86% with regard to a 2018 baseline, while our Scope 3 emissions have been reduced 7%*'.

When it comes to the fashion industry's climate targets, the latest trend is to align these goals to the Science-Based Targets Initiative (SBTi), an initiative that encourages the business community to ensure their goals are ambitious and in line with keeping global warming below 2 degrees. A roster of brands included in our investigation were found in the 'Companies taking action' list⁹⁰ and are keen to broadcast this online and in public reports to enhance their green image. The following organisations have been included in the list as of 17 October 2022: Adidas, ALDI South Group, Asics, ASOS, Boohoo, Burberry, C&A, Gap Inc., H&M Group, Hugo Boss, Inditex, Kering Group, Levi Strauss & Co., lululemon, M&S, Morrisons, New Look, Next, Nike, Patagonia, Primark, Puma, PVH Corp, Reformation, Sainsbury's, Sweaty Betty, Target, Tesco, VF Corp, Fast Retailing and Walmart.

It is critical to observe that within this list not all commitments are equal and varying levels of ambition are exerted among these brands. For example, companies that do not have Net Zero commitments, or have simply been listed as 'committed' with no targets set, include Benetton Group, Gildan, G-Star RAW, Kontoor and Varner Group. Similarly, other brands mentioned are still in their infancy with engaging with the SBTi. Puma and Sweaty Betty are simply marked as 'targets set'.

Other companies, such as Burberry, are more thorough in their approach having set near-term as well as long-term targets, are committed to Net Zero and are also engaging with the SBTi through their business ambition to achieve 1.5 degrees.⁹¹ As part of its climate plan, ASOS has committed to influencing vendors sold on their e-commerce platform by setting the goal that '*Two-thirds of third-party brands (by emissions) signed up to setting targets in line with SBTi requirements by 2025*'.⁹²

In spite of the gravitas its verification seems to have, there are limitations to the SBTi. For instance, the initiative allows companies to set intensity targets as opposed to absolute targets and requires companies to pay a fee of \$9,500 to be accredited, which could call into question the independence of its accreditation process. The SBTi has also received formal complaints about its governance and conflicts of interest by one of its original instigators⁹³ and most recently, it has been critiqued by a group of climate scientists for not checking the accuracy of underlying emissions data reported by companies.⁹⁴

Climate targets set by the industry have also been influenced by brands' signatory status to the UNFCCC's Fashion Industry Charter for Climate Action, whose mission is to '*drive the fashion industry to Net-Zero greenhouse gas emissions no later than 2040 in line with keeping global warming below 1.5 degrees*'.⁹⁵ The voluntary initiative stipulates that as of November 2021 following COP26, members should set at least 50% absolute aggregate GHG emission reductions in Scopes 1, 2 and 3 of the Greenhouse Gas Protocol Corporate Standard by 2030 against a baseline of no earlier than 2019 and commit to achieving Net Zero emissions no later than

2050. Signatories of the charter explored in our research include Adidas AG, Asics, Burberry, Fast Retailing, H&M Group, Hugo Boss, Inditex, Kering Group, Levi Strauss & Co., lululemon, Nike, Otto Group, Primark, Puma, PVH, Reformation, Target and VF Corp. Public commitments are welcome, nonetheless, due to the voluntary nature of the charter, repercussions as a result of failing to achieve these targets are unclear. This is also true for the Textile Exchange, who encourages its members to decrease emissions, yet does not enforce fines or penalties if members fall short of these goals. For example, Dressmann in their sustainability report states that *'As a member of Textile Exchange, we are committed to participate in their Climate Plus strategy towards 2030, with the goal of 45% reduced CO₂ emissions from textile fibre and material production in the pre-spinning phase by changing to preferred fibres'*.⁹⁶

Finally, as mentioned in our latest report *Dressed to Kill: Fashion brands' hidden links to Russian oil in a time of war*, the level of knowledge and disclosure on brand's suppliers that use coal are insufficient for an industry with a seismic carbon footprint and with such ambitious climate targets. When asked whether a company



would be willing to source synthetics from a producer that uses coal, fewer than half of the brands (45%) that engaged with us outright said that they would not source from a supplier that produces polyester from coal. A total of 14 of 31 responded with a clear 'no' to this question; however, the lack of full disclosure of supply chains from some of these respondents in this list, such as H&M Group, Inditex and Kering Group make it harder to deduce whether their actions match their words.

Answers to this question also highlighted that the influence of the UNFCCC's Fashion Industry Charter for Climate Action seems to have guided answers from a few brands. This is due to the fact that at COP26, held in November 2021, it committed signatories to phase out coal from Tier 1 and Tier 2 suppliers by 2030. Reformation upheld this by stating *'Suppliers must set science-based aligned greenhouse gas reduction targets by the end of 2025 or adopt a 50% absolute target by 2030 and Net Zero by 2050. All Suppliers must phase out all coal use by 2030 and commit to no new coal power by January 2023'*.

Despite answering 'yes' in our questionnaire, that they would still source from a supplier that uses coal to create polyester, both Primark and PVH emphasised their commitment to industry action and their commitments to phase out coal from owned and supplier sites by 2023 under the charter. There was no explicit mention of anything beyond these primary tiers.

BOX 5.1: New UN report sets a new standard for Net Zero targets in the fashion industry

Following a series of big announcements made at COP26 last year, when the UN's Fashion Industry Charter for Climate Action was updated to phase out coal, commit over 130 signatories to cut their supply chain emissions by half by 2030 and reach Net Zero by 2050, significant fashion developments at COP27 were few. The Global Fashion Agenda (GFA) and the UN Environment Programme launched a 'Fashion Industry Target Consultation'.⁹⁷ This is yet another voluntary industry initiative calling on fashion stakeholders to define holistic and concrete targets for a net-positive industry. The plan is that chosen targets will be included in the GFA report in Copenhagen in 2024, and that an assessment of the progress towards these targets will be provided annually from 2023 onwards.

However, one of the surprising and unexpected results from COP27 in November 2022 was a UN report called *Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions*,⁹⁸ which sets a powerful new standard for any companies that set climate targets and commitments. The report calls on companies to set short-, medium- and long-term absolute emission reduction targets that align to 1.5-degree pathway and ensure their spending, investments and research and development are aligned to these targets. Companies must have detailed transition plans, with annual reporting on the progress made, and must also outline how they are working towards just transition with their workers, suppliers and communities.

Importantly, the report is very clear on fossil-fuel phase-out, transparency and the need to include all emissions within scope, including those in company supply chains, which are often conveniently forgotten. In the case of fashion, over 90% of the sector's emissions come from the supply chain, so-called Scope 3 emissions. Many fashion companies have Net Zero targets, but have been sluggish in addressing Scope 3 emissions, which means that many of them will have to review their targets and plans to align with these ambitious new recommendations.

Stand.Earth published an analysis of how this UN report affects ten fashion companies, ranging from luxury to sports and casual brands, comparing their Net Zero targets with the UN report.⁹⁹ It shows that only two of ten brands (H&M and Kering) have set emissions reduction targets of at least 50% that cover their supply chains, but none of them includes the full emissions from their supply chains (Scope 3). The brands also lag behind on transparency, with only Nike having sufficient levels of disclosure on all four indicators, such as reporting progress towards coal phase out, on renewables uptake and on the percentage of fossil fibres. But the biggest gap is when it comes to phasing out fossil fuels. Only half of the brands have committed to coal phase-out, while only Kering and H&M have committed to 100% renewable energy across their supply chains by 2030.

When it comes to synthetics, only one company made any kind of commitment to phase out fossil-fuel-derived fibres, showing this to be a major blind spot of corporate commitments. In addition to conflict oil, these fashion brands are also at risk of further undermining their climate commitments due to the fact that Chinese polyester producer Hengli Group, from which many companies are sourcing, has invested \$20 billion in a project to produce polyester from coal. Our research revealed that over 30 brands are at risk of selling polyester produced from coal in the near future, including Benetton Group, Esprit, New Look and Next.¹⁰⁰ Several of these brands specifically said that they would not source from a supplier that produces polyester from coal. Any company that has a Net Zero target would not align with the UN recommendations by sourcing from a company that is actually trying to find new outlets for polluting coal.

Importantly, the report also calls on companies to align their lobbying with their climate commitments, including any lobbying through industry associations. Brands must also meaningfully link executive compensation to climate action and demonstrated results.

The UN report on Net Zero targets will hopefully hold brands' feet to the fire, so that they can invest their profits and creativity into cleaning up their supply chains and moving away from fashion run on fossil fuels and overproduction.



6. Advocates and adversaries of the EU Textile Strategy

On 30 March 2022, the European Commission published the EU Strategy for Sustainable Textiles. The objective of the strategy is to *'make textiles more durable, repairable, reusable and recyclable, to tackle fast fashion, textile waste and the destruction of unsold textiles, and ensure their production takes place in full respect of social rights'*, according to the European Commission's official statement.¹⁰¹

This part of our investigation is the first of its kind to explore fashion brands' response to policies included in the EU Textile Strategy.

The areas covered in our investigation included support for legislation related to:

- EPR;
- eco-modulated fees;
- eco-design criteria for textiles;
- ambitious reuse and recycling targets;
- introduction of recycled content targets;
- ban on the destruction of unsold items;
- improved rules on exports of textile waste;
- reducing the risk of false green claims;
- tax on virgin synthetic fibres;
- increase supply chain transparency;
- address release of microplastics from textiles; and
- ban of chemicals/substances of concern.

From the 31 out of 55 brands that completed the survey, each brand provided a response and no company skipped this section entirely. Full responses can be found online.

It is important to note that for the remaining 24 brands that did not engage with the Changing Markets Foundation, no specific public statements have been issued in a response to the announcement of the EU Textile Strategy.

Six of 31 brands that engaged in our survey said they were in favour of every element of the strategy. These companies were Bonprix, Boohoo, G-Star RAW, Inditex, Levi Strauss & Co. and Reformation.

What characterises many of the responses is that companies state they would support clauses on recycling, truthful green claims and transparency but do not advocate in public for these policies. Nor do they uphold these principles in their current business practices, as this chapter will explore. The recent report from the UN high-level expert group on the Net Zero emissions commitments of non-state entities sets out that companies must align their advocacy and business strategy in line with their climate commitments, as opposed to lobbying against ambitious legislation.¹⁰²

Fast Retailing Group (Uniqlo), although operational in the EU, answered 'Don't know' to all questions and stated that 'We review and consider the details of all draft legislation to clarify how it will impact our products and business operations and decide our position on each topic.' UK retailer Next also put forward a majority of 'Don't know' answers, notably on areas including a tax on virgin synthetic fibres and legislation that could support the address of microplastic release from textiles.

Inditex, which supported every element in the survey, also contributed a detailed policy response and participated in the European Commission public consultation of the EU Textile Strategy last year.¹⁰³

Some areas of the strategy garnered more support than others, including matters related to accuracy of green claims, which received a resounding 'yes' from 29 of 31 (94%) brands, a ban on destruction of unsold items was popular with 27 of 31 (87%) in favour and matters related to eco-design criteria and supply chain transparency received support from 26 of 31 (83%) of respondents.

Ban on destruction of unsold items

Would you support legislation for the ban on destruction of unsold items?

- YES
- NO
- I DON'T KNOW



Brands that said yes:	Brands that said no:	Brands that said I don't know:
Asda, Benetton Group, Bonprix, Boohoo, Burberry, C&A, Dressmann, Esprit, G-Star RAW, H&M, Inditex, Kering Group (Balenciaga, Bottega Venetta, Gucci, Saint Laurent), Levi Strauss & Co, Lindex, Next, Primark, Puma, PVH brands (Calvin Klein and Tommy Hilfiger), Reformation, Tesco and Zalando	Morrisons	Adidas, Sainsbury's and Uniqlo (Fast Retailing Group)

Figure 6.1: Ban on destruction of unsold items

The policy element that had the least definitive support and is not proposed by the European Commission at this stage, was the tax on virgin synthetics. Overall, 23 of 31 responders (75%) either clicked 'No' or 'Don't know'. This included Adidas, Benetton Group, Burberry, Dressmann, Fast Retailing Group, H&M Group, Kering Group (and its respective fashion houses), Next, Primark, Puma, PVH Group, Sainsbury's, Tesco and Zalando. Responses of 'Don't know' from Esprit and C&A called for incentives as an alternative as C&A said, 'We would suggest incentivizing companies using less synthetic fibres instead of a tax.'

Improve rules on exports of textile waste

Would you support legislation to improve rules on exports of textile waste?

- YES
- NO
- I DON'T KNOW



Brands that said yes:	Brands that said no:	Brands that said I don't know:
Adidas, Asda, Benetton Group, Bonprix, Boohoo, C&A, Dressmann, Esprit, G-Star RAW, H&M Group, Inditex, Levi Strauss & Co., Lindex, Next, Primark, Puma, PVH brands (Calvin Klein and Tommy Hilfiger), Reformation and Tesco	Morrisons	Burberry, Kering Group (Balenciaga, Bottega Venetta, Gucci, Saint Laurent), Sainsbury's, Uniqlo (Fast Retailing Group) and Zalando

Figure 6.2: Improve rules on exports of textile waste

Of the 31 respondents, eight (25%) outright supported a tax on virgin synthetic fibres proposed by Changing Markets. These were Asda, Bonprix, Boohoo, G-Star RAW, Inditex, Levi Strauss & Co., Lindex and Reformation.

Our survey received insufficient answers from retailers using large volumes of synthetics as a percentage of total fibres. This included Puma, whose synthetics account for 35% of total fibre usage. The brand claimed, 'We have not yet discussed internally our position on this topic'. It was a similar story for Zalando, whose synthetics account for one-third of total fibre usage, noting 'We do not currently have a position on this but if there were to be an intervention, the preference would be for a blend of incentives and taxes.'

Support for legislation to address the release of microplastics from textiles also received red-flag responses. Nearly one-third of respondents (ten of 31) opted for 'Don't know' or 'No' answers to this question. These brands were Adidas, Burberry, Esprit, Fast Retailing Group (Uniqlo), Morrison's, Next, Primark, Puma, Sainsbury's and Zalando. Four of these retailers are also signatories of TMC: Adidas, Fast Retailing Group, Primark and Puma. A strong narrative appears in the responses, which are focused on insufficient research. For example, Adidas stated 'It is too early to include this into legislation. More research is needed to understand where fibre fragmentation happens and how to objectively measure it.' Similarly, Puma declared that 'Current information is too little and the objective is unclear to answer.'

Tax on virgin synthetic fibres

Would you support legislation that introduces a tax on virgin synthetic fibres?

- YES
- NO
- I DON'T KNOW



Brands that said yes:	Brands that said no:	Brands that said I don't know:
Asda, Bonprix, Boohoo, G-Star RAW, Inditex, Levi Strauss & Co., Lindex and Reformation	C&A, Esprit and Morrisons	Adidas, Benetton Group, Burberry, Dressmann, H&M Group, Kering Group (Balenciaga, Bottega Venetta, Gucci, Saint Laurent), Next, Primark, Puma, PVH Corp brands, Sainsbury's, Tesco, Uniqlo (Fast Retailing Group) and Zalando

Figure 6.3: Tax on virgin synthetic fibres

Even for the 21 brands that did say they would support legislation that tackled microplastics originating from textiles, many answers came with caveats. Dressmann replied that it would need to be based on science and that measures need to be scientifically proven to reduce microplastic release. Additionally, C&A noted that they would support the legislation but that *'a common, scientific methodology must be available before a legislation is put into place.'* Kering Group acknowledged its membership of TMC, insinuating it would help to *'address the release of microplastics from textiles at a large scale.'*

Address release of microplastics from textiles

Would you support legislation that addresses the release of microplastic from textiles?



Brands that said yes:	Brands that said no:	Brands that said I don't know:
Asda, Benetton Group, Bonprix, Boohoo, C&A, Dressmann, G-Star RAW, H&M Group, Inditex, Kering Group, Levi Strauss & Co., Lindex, PVH Corp (Calvin Klein and Tommy Hilfiger), Reformation and Tesco	Morrisons and Next	Adidas, Burberry, Esprit, Primark, Puma, Sainsbury's, Uniqlo (Fast Retailing Group) and Zalando

Figure 6.4: Address release of microplastics from textiles

Elsewhere, the overwhelming support for legislation to reduce the risk of false green claims, where 29 of 31 (94%) brands said 'yes', suggests that brands are looking for concrete guidance on greenwashing to remain compliant in their claims. Adidas, who has recently been convicted of greenwashing for false advertising of their trainers¹⁰⁴ said that *'Brands need clarity on how to make green claims, to level the playing field.'* H&M Group, who is also under investigation for the labelling of their products¹⁰⁵ stated: *'We welcome clearer guidance from legislation and what authorities are demanding and wish for that to be harmonized across markets.'*

Fast-fashion retailer Primark, boasted about its actions stating *'We contributed to the CMA's Green Claims guidelines through the British Retail Consortium. We welcome the CMA's work to ensure that sustainability claims across the industry are rigorous and informative for customers.'* Kering Group, who released its own guidelines for greenwashing in October 2022¹⁰⁶ was also in favour of further legislation and dedicated guidance.

Reduce risk of false green claims

Would you support legislation to reduce the risk of false green claims?



Brands that said yes:	Brands that said I don't know:
Adidas, Asda, Benetton Group, Bonprix, Boohoo, Burberry, C&A, Dressmann, Esprit, G-star RAW, H&M Group, Inditex, Kering Group (Balenciaga, Bottega Venetta, Gucci, Saint Laurent), Levi Strauss & Co., Lindex, Morrisons, Next, Primark, Puma, PVH brands (Calvin Klein and Tommy Hilfiger), Reformation, Tesco and Zalando	Sainsbury's and Uniqlo (Fast Retailing Group)

Figure 6.5: Reduce risk of false green claims

A mandatory increase in supply chain transparency was supported by 83% of respondents (26 of 31), including tools such as digital product passports, which could help to facilitate increased traceability throughout a product's life cycle. This specific result highlights how brands are keen to appear to publicly support transparency, but in reality, fail to provide sufficient levels of disclosure across multiple tiers of their supply chain.

Boohoo answered that it would support measures to increase transparency, yet do not disclose their virgin synthetic fibre supplier lists in public, nor did it send them privately to us upon request. Organisations who cherry-pick their Tier 1 lists to upload to the OSH, such as H&M Group are failing to abide by higher levels of transparency further upstream. It is not only mass-market brands who are hypocritical regarding supply chain disclosure. Luxury group Kering and Burberry who do not share any supplier lists in the public domain said they would support it.

Increase supply chain transparency

Would you support legislation that demands increased supply chain transparency?



Brands that said yes:	Brands that said no:	Brands that said I don't know:
Asda, Benetton Group, Bonprix, Boohoo, C&A, Dressmann, Esprit, G-star RAW, H&M Group, Inditex, Kering Group (Balenciaga, Bottega Venetta, Gucci, Saint Laurent), Levi Strauss & Co., Lindex, Next, Primark, Puma, PVH brands (Calvin Klein and Tommy Hilfiger), Reformation, Tesco and Zalando	Morrisons	Adidas, Burberry, Sainsbury's and Uniqlo (Fast Retailing Group)

Figure 6.6: Increase supply chain transparency

Questions on EPR and eco-modulated fees received support from the majority of respondents. Overall, 25 of 31 (81%) were in favour of EPR and 18 of 31 (58%) were in favour of eco-modulated fees, with many companies acknowledging the value of harmonisation. For example, H&M Group stated it would welcome EPR as an *'effective tool to finance collecting, sorting for reuse, prepare for recycling and recycling infrastructure across the EU.'*

EPR

Would you support legislation for mandatory EU-harmonised Extended Producer Responsibility (EPR) for textiles?



Brands that said yes:	Brands that said no:	Brands that said I don't know:
Adidas, Asda, Benetton Group, Bonprix, Boohoo, C&A, Dressmann, Esprit, G-Star RAW, H&M Group, Inditex, Kering Group (Balenciaga, Bottega Venetta, Gucci, Saint Laurent), Levi Strauss & Co., Lindex, Puma, PVH Group, (Calvin Klein and Tommy Hilfiger), Reformation, Tesco and Zalando	Morrisons	Burberry, Next, Primark, Sainsbury's, Uniqlo (Fast Retailing Group)

Figure 6.7: EPR

On the eco-modulation of EPR fees, PVH believes that it could provide incentives for producers to put more sustainable products on the market and notes that *'in order to create this incentive, it is important that the modulation is focused, harmonized, and aligned with other legislation (notably the Eco-design for Sustainable Products Regulation).'*

Eco-modulated fees

Would you support legislation for eco-modulated fees?

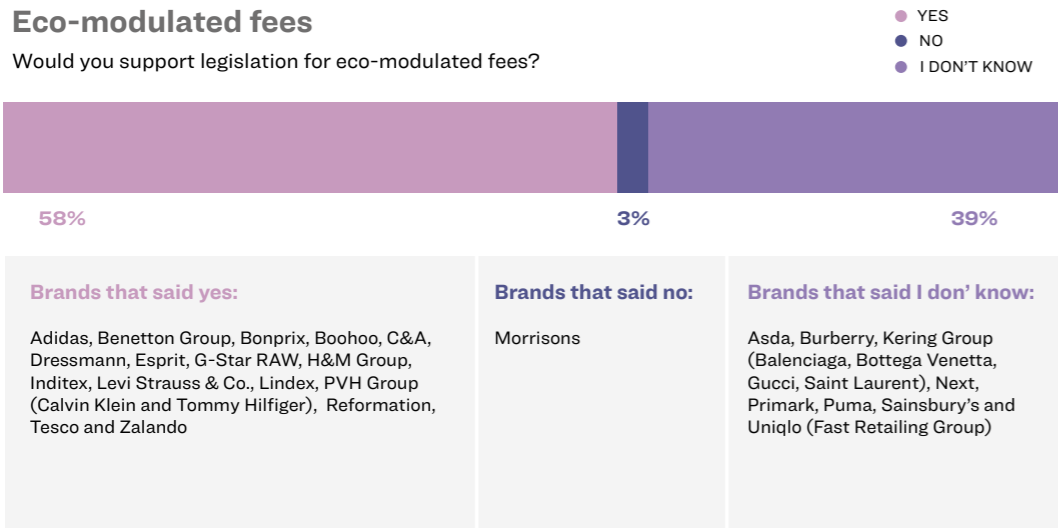


Figure 6.8: Eco-modulated fees

While 21 of 31 (67%) supported the implementation of recycled content targets, a number of the responses contained hesitation about the lack of supply of recycled fibres. C&A answered 'No' and 'Don't know' - arguing that not every product is suitable for recycled content and that *'if enough recycled feedstock is available, we would support an overall goal, but not a minimum target per product.'* PVH also said that supply must increase and recycled content targets should be carefully considered among different product groups.

Similarly, Dressmann opted for 'Don't know', acknowledging availability for recycled fibres is smaller so production would have to be increased before making it mandatory. Levi supports such targets but believes that they *'should be developed through a multi-stakeholder, product-specific approach that examines the implications across directives. For example, using recycled inputs may require companies to use inputs that are contaminated with chemicals on the ZDHC Restricted Substances List that do not meet company sustainability requirements.'*

Eco-design criteria for textiles

Would you support legislation for eco-design criteria for textiles?

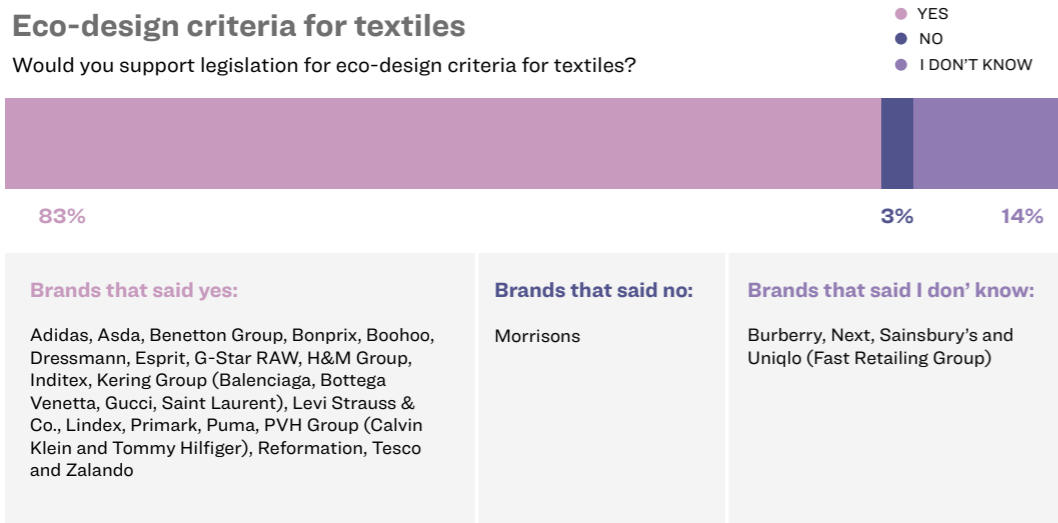


Figure 6.9: Eco-design criteria for textiles

Ambitious reuse and recycling targets

Would you support legislation for ambitious reuse and recycling targets?

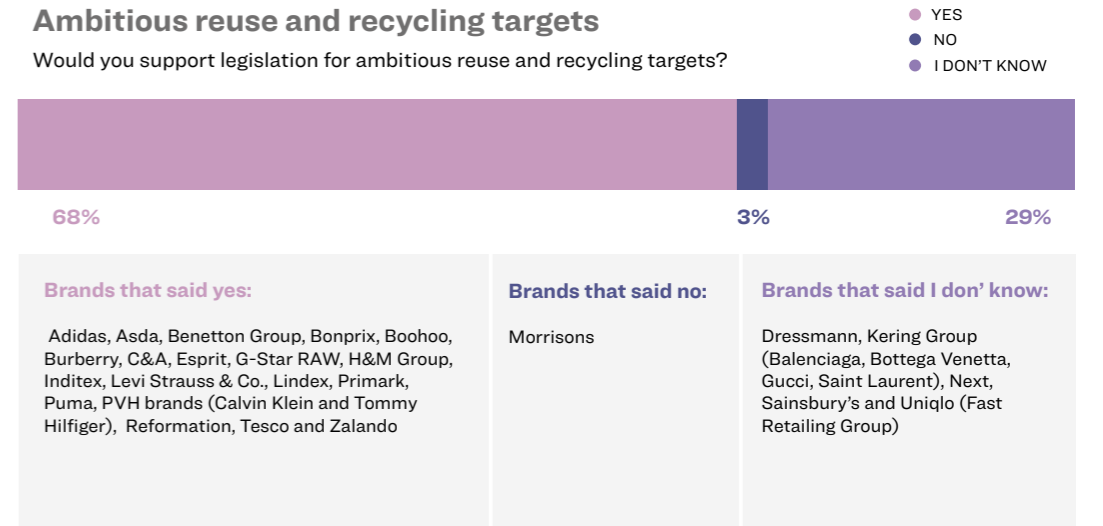


Figure 6.10: Ambitious reuse and recycling targets

Introduction of recycled content targets

Would you support legislation for the introduction of recycled content targets?

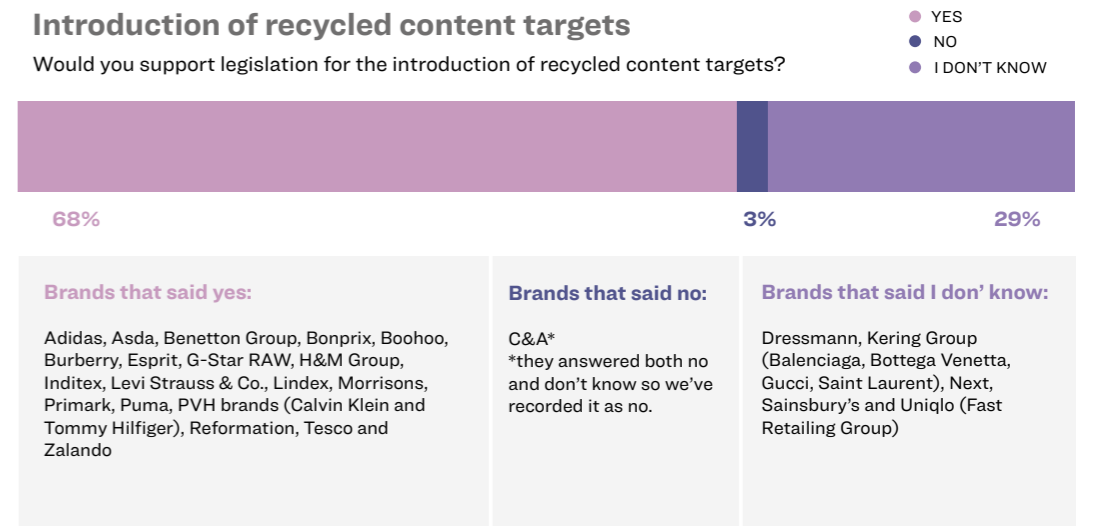


Figure 6.11: Introduction of recycled content targets

Responses to the ban of chemicals and substances of concern received a majority support of 23 of 31 brands (74%). Supporters shared details of their chemical management policies and safety departments. This included Kering Group who noted that through its policies they *'regulate the elimination of hazardous substances from its production processes through an MRSL, and limits and monitors the presence of restricted chemicals on products through the PRSL and related tests.'*

Ban of chemicals/substances of concern

Would you support legislation that bans chemicals/substances of concern?

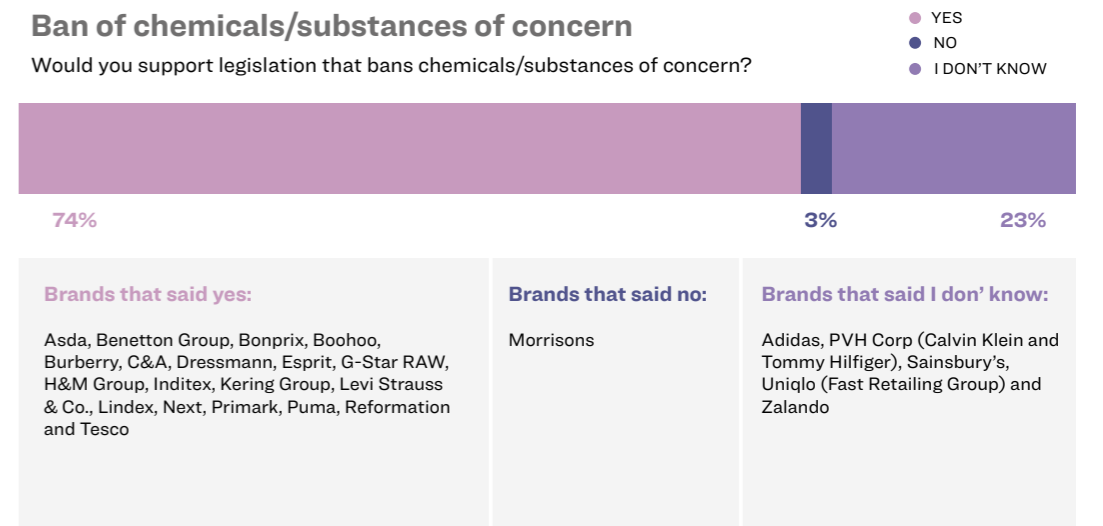


Figure 6.12: Ban of chemicals/substances of concern

H&M Group discussed the importance of legislation to increase information requirements for chemical suppliers in the REACH Safety Data Sheets which 'would significantly facilitate our proactive chemicals management and inform our substitution efforts.' Esprit, Puma and Reformation also included their company alignment to ZDHC in their responses.



7. Conclusion

The findings from our follow-up investigation into the synthetic fibre usage of 55 brands and retailers reveal the scale of fashion's synthetic problem and how far the industry still has to go to appear serious in its claims of addressing climate emissions and moving towards a circular economy.

Our findings are limited by an overwhelming lack of transparency when it comes to synthetic fibre volumes and who supplies them to brands. Notably, 18 out of 55 (32%) companies fail to disclose any meaningful information on synthetics and only one brand, Reformation, set a clear timeline to move away from all synthetics, virgin and recycled.

Worryingly, the companies responsible for the most pervasive use of synthetics, such as SHEIN, did not engage with our questionnaire at all. Fast-fashion giant Boohoo was found to be the brand with the highest proportion of synthetics as percentage of total fibre use sitting at 64% and reported that polyester fibres exist in over half (54%) of its products. Fashion's addiction to synthetics shows no signs of abating as we recorded that 14 out of 55 brands (25%) have in fact increased their use of synthetics over the last five years. These findings underline the need for stringent regulations, for example through the implementation of the EU Textile Strategy, to reduce fashion's oversized environmental impacts.

In conjunction with our investigation, *Dressed to Kill: fashion brands hidden links to Russian oil in a time of war*, it is clear that the level of knowledge and disclosure of brands' synthetic supply chains is inadequate and represents a huge blind spot for businesses. For example, when asked whether a company would be willing to source synthetics from a producer that uses coal, fewer than half of the brands (45%) that engaged with us outright said they would not source from a supplier that produces polyester from coal. What is more, 27 out of 31 brands (87%) who completed the survey did not provide adequate details on their synthetic suppliers. Yet, every one of these companies has some form of climate target in place. This is telling about the glaring gap between fashion's climate goals and its synthetic fibre policies to date.

As found in the first edition of *Synthetics Anonymous*, the introduction of recycled synthetics remains the key strategy for 'reducing' the impact of synthetic fibres in garments, as 45 out of the 55 brands (81%) have set targets to increase their recycled synthetic content. Many brands including Morrisons, Next and Puma were almost entirely dependent on recycled polyester for their recycled fibre content and most companies

investigated continue to bank on plastic bottles as feedstock, which is not a long-term viable solution. Importantly, no single goal related to increasing recycled synthetic content has also been paired with a commitment and promise to decrease the overall volume of synthetics used in products. The use of recycled polyester should come with an even bigger warning sign now, as overzealous marketing of its sustainability benefits represents a legal liability for retailers such as H&M Group. The retailer has been reprimanded for its vague claims following the issuance of progressive greenwashing regulations, has been forced to remove 'sustainability' labelling and now also faces multiple legal cases.

Elsewhere, any instigation of microfibre policies to manage microplastic pollution still proves to be lacklustre. Of 55 brands, 23 (41%) have no public statement whatsoever on their plans to address microfibres. For those that do have a policy, nearly half are overly reliant on their membership of initiatives such as TMC, an initiative found to be limited in scope, with transparency issues and failing to deliver on meaningful impact, as highlighted in our report *Licence to Greenwash*.¹⁰⁷

Most strikingly, only one brand (Reformation), stated it would phase out the use of synthetics as a precautionary principle to tackle microfibres. Given that the EU Textile Strategy directly correlates fossil-fuel-derived fabrics with microplastic pollution, failure to communicate and execute an action plan could land brands in hot water in the very near future.

Effective efforts to tackle end-of-life issues related to synthetics, such as durability, textile separation or designing with recyclability in mind, have proven limited. For the 24 out of 55 brands (43%) that claimed to be investing into fibre-to-fibre recycling technologies, the majority of this is research, as opposed to building infrastructure dedicated to recycling. The lack of disclosure over amounts invested into such projects by brands also reveals how serious brands are about recycling. The small amounts disclosed pale in comparison to the billions being funnelled into expanding polyester production by the likes of Hengli and Reliance Industries, as cited in *Dressed to Kill*.¹⁰⁸

Despite the industry's harmful environmental footprint and amidst an accelerating climate emergency, fashion brands are still increasing their GHG emissions and failing to transition to alternative business models, tarnishing any chance of mitigating the sector's damage.

No single company explicitly committed to reducing their absolute GHG emissions across their entire supply by at least 55% by 2030, despite calls to do so by the Changing Markets Foundation in 2021 ahead of COP26. Six of the 55 organisations evaluated had no public-facing climate targets whatsoever and companies such as lululemon and Boohoo, who are working meticulously to craft a reputation as sustainable, are found to be increasing their Scope 3 emissions. For others, many climate goals remain incomplete as they fail to set absolute reduction targets for Scope 3 emissions and instead focus on intensity-based targets or linking goals to revenue.

Last, attitudes towards legislative developments such as the EU Textile Strategy and its various policies, be that on recycled content targets, eco-design criteria or supply chain transparency, highlight who in the industry is an advocate or adversary of progressive regulation on synthetics. Our findings indicate that brands are hesitant on issues such as a tax on virgin synthetic fibres and addressing the release of microplastics from textiles but are quick to sound their support for green claims guidance, supply chain transparency, recycling targets and EPR. Ironically, many of these supporters are the very culprits under investigation for greenwashing and fail to disclose any meaningful supplier data beyond Tier 1, including that on their synthetic fibre supply chains.

The disparity between fashion's sustainability marketing, their lack of action on phasing out fossil-fuel-derived fabrics and meaningful climate targets should be a call to action for policymakers to put in place ambitious legislation that will change the course on fashion's synthetic fibre addiction, climate and waste crisis.

8. Recommendations

8.1. Recommendations for fashion brands and retailers

1. **Move away from the fossil-fashion business model:** Companies should establish concrete, measurable and time-bound targets to reduce the use of synthetic materials and move away from the unsustainable fast-fashion model and prioritise phasing out of synthetic fibres from children's clothing and collections for new mothers, as there is emerging scientific evidence that young children's health is the most vulnerable to microfibre pollution. The Changing Markets Foundation calls for a complete phase-out of synthetic fibre use, with the following milestones: A 20% reduction set to a 2021 baseline in the use of fossil fuels in materials by 2025 and a 50% reduction by 2030.
2. **Commit to ambitious and comprehensive climate targets aligned with the recent UN report on Net Zero targets for non-state actors:** Set ambitious commitments to rapidly move supply chains away from coal and other fossil fuels by 2030, to achieve the minimum 55% reduction in GHG emissions that scientists warn is needed to stay within a 1.5-degree pathway. These should cover all supply chain emissions (Scope 1-3), including factories and mills, transportation and raw material cultivation, as well as transitioning away from fossil-fuel-based fabrics. Companies must set interim targets to ensure that decarbonisation efforts begin immediately and should not use carbon offsets to meet their targets. They should transparently report their progress on an annual basis towards a set baseline. Reports must be independently verified.
3. **Invest in true circularity:** This should include higher durability of garments, longer warranties, offering repairs to customers and promoting reuse. Instead of promoting recycled materials produced from PET bottles or ocean plastic, invest in viable and environmentally benign fibre-to-fibre recycling technologies and transparently disclose the amount invested. Ensure, too, that any toxic chemicals are eliminated in the design process, as these might get recycled back into new clothes, harming the health of customers.

4. **Ensure any green claims made are not false or deceptive:** Claims must be clear and unambiguous. Do not omit important and relevant information (for example, on the product's end of life); ensure comparisons made are fair and meaningful and that claims are substantiated and easily accessible to consumers. This among others includes:
 - Stop making unsubstantiated claims on the recyclability of garments sold, in the absence of any viable fibre-to-fibre recycling technology.
 - Stop masking growth under increased volumes of recycled synthetics. Brands should be transitioning away from synthetics entirely, instead of simply increasing the total volume of recycled polyester as justification, encouraged by initiatives such as Textile Exchange's Recycled Polyester Challenge 2025.
5. **Provide full, publicly accessible and transparent information on your suppliers:** Including all the factories and supply chain stages from which textiles are sourced – not just 'Tier 1' and 'Tier 2' factories. Brands must communicate these clearly on their website by distinguishing suppliers per Tier.
6. **Provide full, publicly accessible and transparent information about your sustainability policies and improve levels of public disclosure and engagement:**
 - This should include transparent information about different fibre volumes, both in percentages and weight.
 - Disclosure at a brand as opposed to group level.
7. **Openly support progressive legislation to improve circularity and transparency in the industry** (for example, mandatory EPR schemes), encourage peers to do the same and leave any industry initiatives that oppose, delay or undermine progressive legislation – including its implementation.

8.2. Recommendations for policymakers

This report shows a significant support of brands for the policy elements that were proposed by the EU Textile Strategy; however, to truly ensure the transformation of the sector, the policy should go further, including disincentives for cheap synthetics, such as:

1. **Policy on end-of-life management:** Set up an EPR scheme for different types of textiles (for example clothing, carpets and mattresses), in which producers are responsible for the management and cost of end-of-life treatments of the products they place on the market. Introduce eco-modulated fees and eco-design criteria to encourage that products are reusable and recyclable from the design phase.
2. **Encourage the use of non-toxic circular materials and introduce eco-design measures** to prevent material mixing and blends and to eliminate substances of concern – all of which hinder circularity. Ensure any legacy toxic chemicals are eliminated to prevent recycling them into new products. Chemicals should be regulated in groups (rather than as individual chemicals) to avoid the regrettable substitution of one toxic chemical for another.
3. **Introduce mandatory climate targets** that align with the 1.5-degree pathway and cover the whole supply chain.

4. **Virgin plastic tax:** To discourage the continued reliance of the fashion industry on fossil-fuel-derived fibres and curb the fast-fashion model, policymakers should introduce a tax on virgin plastic materials, covering virgin synthetic fibres in the textile industry.
5. **Disincentivise false circularity:** Do not incentivise the use of plastic waste from other sectors (such as PET bottles) as a feedstock for recycled polyester fibres in the textile industry, as such items should be collected, reused and recycled in a closed loop (and companies should also reduce single-use PET bottles on the market). Policymakers should instead ensure that brands are encouraged to use fibre-to-fibre recycled material and invest in the uptake of such technologies, for example through mandatory recycled content obligation.
6. **Set out strategies and measures to reduce pollution from the shedding of microfibres from synthetic fibres.** One such strategy should be reducing the use of synthetic fibres, in line with the precautionary principle. Second, set measures and maximum thresholds for the number of microfibres released during production, use phase and end of life. In addition, explore setting rules on industrial pre-washing and wastewater filtering in European processes, so that large quantities of microplastics are washed out and collected before the products are sold on the market – putting the responsibility for this on producers, not consumers.
7. **Prevent companies from making unsubstantiated green claims**, including around the 'recyclability' of their products, their use of recycled polyester from plastic bottles and the share of recycled polyester in their products. Preferably, an independent body should have to pre-approve any claim before it can be made.
8. **Adopt mandatory transparency and due-diligence legislation**, according to which companies are legally required to identify, prevent, mitigate, track and account for environmental, human rights and governance risks and impacts. Due diligence should also mandate high levels of transparency, as companies are often able to hide human-rights violations and pollution scandals behind opaque supply chains and via third-party outsourcing in their supply chains. This should include legal requirements to trace and disclose fibre suppliers across the supply chain. As this report has shown, there is a high level of support (83%) by brands for mandatory supply chain transparency.

8.3. Recommendations for consumers

1. Raise awareness of the problems with fast fashion, and in particular, the links between brands and fossil-fuel extraction. Use your voice – for example, through social media or signing petitions – to demand complete transparency from brands and highlight issues such as greenwashing, exploitative practices, environmental harm and unsustainable consumption.
2. Refrain from compulsive shopping and buy only what you really need, shop second-hand and buy for maximum durability, and seek to repair, reuse and swap items where possible. Avoid buying synthetics, particularly given the health hazards associated with the release of microplastics.
3. Buy only from brands that have made clear commitments to transparency in their supply chains, to sustainable sourcing and production of all their materials and garments, and that have strong climate commitments, including a clear plan to phase out their dependence on fossil-fuel-based fibres.

Annex I: Methodology

This section contains the ranking categorisation of brands based on their responses to the questionnaire and publicly available synthetic fibre policies and disclosures on related topics. Companies are listed alphabetically and not ranked by performance within each section.

Methodology to categorise brands according to their use of synthetics:

- *Frontrunners*: Do not use synthetics or have clear commitments to phase out the use of synthetic fibres from their collections.
- *Could do better*: Transparent about use, and either already use relatively few synthetics (less than 25% of their total material use) or have clear plans to reduce their reliance on synthetics.
- *Trailing behind*: Limited transparency about use, and either use a high percentage of synthetics or a relatively low - but rising - percentage.
- *Red zone*: Little to no transparency at all.

Methodology to categorise brands according to their policy on microfibre pollution:

- *Front runners*: Brands with the precautionary principle that are reducing synthetic fibre usage to deal with microplastic pollution.
- *Could do better*: Brands with at least two of five different microfibre policies.
- *Trailing behind*: Brands with only one microfibre policy that relies on membership of initiatives such as TMC.
- *Red zone*: No microfibre policies in place.

Methodology to categorise brands according to their climate targets:

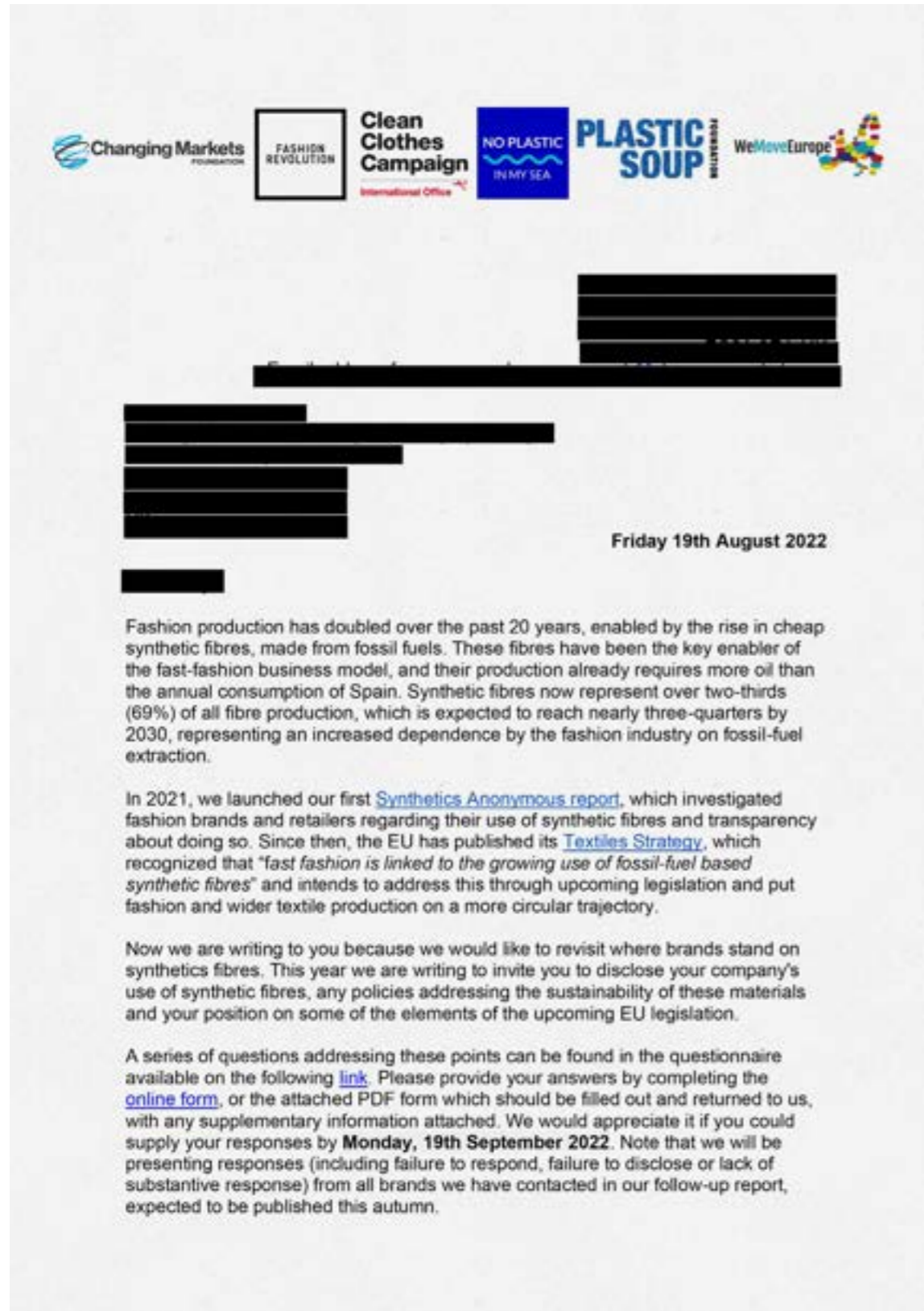
- *Front runners*: Ambitious absolute climate targets not just intensity, inclusive of Scope 1-3 paired with the commitment to transition away from fossil-fuel-based fabrics. A brand that reports on progress, is committed to Net Zero, engages in industry collaboration to encourage sector to have ambitious goals, could also be certified carbon neutral.

- *Could do better*: Climate targets set for Scope 1-3. Strong climate policies and industry engagement, verified by SBTi; however, does not report on full progress across supply chain and has not committed to transition away from synthetics.
- *Trailing behind*: Has recently set climate targets or committed to SBTi with little other information. A brand that does not include Scope 3 targets. Can also include a brand that has climate targets but still increasing use of synthetics. *Indicates brands that have set climate targets but are still sourcing from coal as per the Changing Markets Foundation *Dressed to Kill* research. Only targets set at parent/group level.
- *Red zone*: No climate targets set.

Annex II: Brand questionnaire

Full questionnaire can be accessed on :

<http://changingmarkets.org/wp-content/uploads/2022/12/Changing-Markets-Brand-Questionnaire-2022-Survey-5.pdf>



Annex III: Table on the use of synthetics

*Responses from brands in emails, but with no completion of the questionnaire were not considered as engagement.

Brand/retailer	Group	Engaged 2022	Tonnes of synthetics/year	Relationship to 2021 synthetic usage (↑or↓)	Synthetics as % of total fibre usage	Increase/decrease in synthetic usage over the last 5 years
Reformation	N/A	✓	10.72 tonnes, Reformation communicated.	↓ (LY said 4-5%)	2.01%, the brand communicated.	Decreased - Synthetic fibers were 2.27% of total uptake in 2020 and 2.01% of total uptake in 2021.
BALENCIAGA	Kering	✓ (from Kering Group)	Figures disclosed only for parent group.	👁️ Kering	Figures disclosed only for parent group.	See parent group Kering
BOTTEGA VENETA	Kering	✓ (from Kering Group)	Figures disclosed only for parent group.	👁️ Kering	Figures disclosed only for parent group.	See parent group Kering
Dressmann	Varner	✓	763.9 tonnes (693 MT), Dressmann communicated. Information is only publicly available at a group level for Varner.	↓ (LY said 16%)	14%, the brand communicated.	Decreased - Dressmann communicated a decrease in synthetics by 17% from 2019.
ESPRIT	Esprit holdings	✓	2951 tonnes, Esprit communicated. This information is not available on its website.	Same (LY said 24% for FY19/20)	24.02%, the brand communicated.	Esprit communicated it believes it has decreased but have only have started collecting data from 2021 so cannot be certain.
G-STAR RAW	NA	✓	785 tonnes, G-Star RAW communicated. This information is not publicly available on its website.	↑ (LY said 15%)	18%, the brand communicated.	Decreased - G-Star RAW communicated that from 2017 to 2021 there was a 17.5 MT (19.2t) decrease of synthetic materials.
GUCCI	Kering	✓	Figures disclosed only for parent group.	👁️ Kering	Figures disclosed only for parent group	See parent group Kering.

Brand/retailer	Group	Engaged 2022	Tonnes of synthetics/year	Relationship to 2021 synthetic usage (↑or↓)	Synthetics as % of total fibre usage	Increase/decrease in synthetic usage over the last 5 years
KERING (group level only)	Kering Group	✓	2205 tonnes, Kering communicated. This information is not publicly available.	↓ (LY said 4%)	2.6%, the brand communicated.	Increased - Kering communicated that its use of synthetic fibers has increased by 122% in the past five years, representing 2.57% of total raw materials used in production in 2021.
Levi's	NA	✓	7135 tonnes, Levi Strauss & Co communicated.	↓ (LY said 9%)	7.56%, the brand communicated.	Levi Strauss & Co stated that their synthetic fiber usage and absolute volume and percentage of total volume has fluctuated over the past 5 years. They communicated the absolute volume has ranged from 5K-7K mT/year, accounting for 7.23 - 9.39% of total fiber procurement.
YVES SAINT LAURENT	Kering	✓	Figures disclosed only for parent group.	👁️ Kering	Figures disclosed only for parent group.	See parent group Kering.
adidas	Adidas AG	✓	Did not disclose, information not available on website.	↓ (LY said 90% of apparel articles are made with synthetics or blended with synthetics)	56%, the brand communicated.	Decreased - Adidas communicated that in 2021, its use of synthetics decreased slightly and was replaced by higher cotton usage.
ASDA	Walmart	✓	15696 tonnes, Asda communicated.	↓ (LY said 30%)	27%, the brand communicated.	Decreased - Asda communicated it has decreased synthetic fibre usage. They stated that 'In 2018 we used 18,013 tonnes of synthetic fibres which was just under 35% of our total fibre mix. In 2020 we used 13,580 tonnes of synthetic fibres which accounted for 29% of our total fibre mix.'
ASOS	ASOS	✗	Did not engage, information not available on website. Last year, Asos communicated this was 6275 tonnes in 2020.	NA (LY said 29%)	Did not engage, information not available on website. Last year, Asos communicated it was 29%.	Did not engage, information not available on website. Last year, ASOS communicated an increased use of synthetic fibres by 16% since 2019.
bonprix	Otto Group	✓	Did not disclose, information not available on website.	↑ (LY said 33%)	36%, the brand communicated.	Decreased - Bonprix reported there has been a decrease of approximately 3-5 % in its fiber split of synthetics.

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE

EMAILED SEE YES NO N/A

Brand/retailer	Group	Engaged 2022	Tonnes of synthetics/year	Relationship to 2021 synthetic usage (↑or↓)	Synthetics as % of total fibre usage	Increase/decrease in synthetic usage over the last 5 years
	Cofra Group	✓	23524 tonnes, C&A communicated. This information is not available on their website.	Same - (LY said 26%)	26.1%, the brand communicated.	Decreased - C&A reported a steady decrease in their use of synthetics since 2019. FY 2019 (compared to 2018): -3.15% (Total: 29.5% of total fiber share) FY2020 (compared to 2019): -2.12% (Total: 27.4% of total fiber share) FY2021 (compared to 2020): -1.28% (Total: 26.1% of total fiber share)
Calvin Klein	PVH Corp	✓ (PVH only)	Figures disclosed only for parent group.			
	Alshaya Group	✓	Did not disclose, information not available on website.	↓ (LY said 27%) so marginal decrease	26.6%, the brand communicated.	Decreased - H&M Group state they have decreased their use of virgin synthetics.
HUGO BOSS	Hugo Boss Group	✗	3433 tonnes. This information is publicly available.	↑ (LY said 20%)	21%, this information is publicly available.	Increased - based on public information in its sustainability report, synthetic fibre as a proportion of material mix has increased from 2020 by 1%.
INDITEX		✓	178030 tonnes, Inditex communicated. This information is publicly available.	↓ (LY said 38%)	36%, the brand communicated.	Decreased - Inditex communicated that the percentage of synthetic fibers used has slightly decreased as per below. - 36% of the total fibres used in our products in 2021, - 38% in 2020 - 38% in 2019 - 39% in 2018 The state they have reduced the use of synthetic fibers, in terms of total tonnes, from 181,032 tonnes in FY2018 to 178,030 tonnes in FY2021.
LINDEX	Finnish Stockmann Group	✓	4248 tonnes, Lindex communicated. The brand does not publicly share volumes of fibres.	↓ (LY said 37%)	34% of pieces contain synthetics, Lindex communicated. This information is publicly available.	Increased - Lindex communicated it has incurred a small increase due to the growth of their lingerie category.
		✗	Did not engage. Discloses weight of total materials procured in 2021 which is 37,727,000 kg (37727 tonnes). Using polyester and nylon percentages provided (totalling 62%), the brand uses approximately 23390.74 tonnes of synthetics.		Based from calculations on publicly disclosed information, 62%.	 Lululemon only publicly shares information about increased volume of 'sustainable materials'.

Brand/retailer	Group	Engaged 2022	Tonnes of synthetics/year	Relationship to 2021 synthetic usage (↑or↓)	Synthetics as % of total fibre usage	Increase/decrease in synthetic usage over the last 5 years
MARKS & SPENCER	M&S Group	✗	Did not engage this year, information not available on website. Last year, M&S communicated 20,100 metric tonnes in 2020.		(LY said 54% by product volume in 2020)	Did not engage this year, information not available on website. Last year, they communicated 54% by product volume in 2020.
NEW LOOK	New Look Retail Holdings	✗	Did not engage this year, information not available on website. Last year, they communicated 13292 tonnes.		(LY said 60%)	Decreased - based on data provided last year and available online information, the use of polyester decreased from 42% to 35% of total fibre mix.
next		✓	23915 tonnes, Next communicated. This information is publicly available.	↓ (LY said 37%)	34%, the brand communicated.	Decreased - Next communicated that their use of synthetic fibres is starting to show a small overall decrease over the last five years, with a reduction from the prior year from 38% to 34%.
	Nike Inc	✗	Did not engage, only disclose polyester and rubber data which stands at 245239 tonnes.		NA - Nike only reports on top 5 materials used, polyester tops list in terms of volume, no percentages are publicly provided.	Did not engage, information not available on website. Based on information provided last year, volume of polyester has decreased by 15% and the volume of rubber has increased.
patagonia	Patagonia, Inc.	✗	Did not disclose, information not available on website.		Did not disclose, information not available on website.	Did not disclose, information not available on website.
PRIMARK	Associated British Foods	✓	Did not disclose, information not available on website.		43%, the brand communicated.	Decreased - Primark communicated that since 2017, they have incurred a 4.64% decrease in its use of synthetic fibres.
PUMA		✓	66248 tonnes, Puma communicated.	↓ (LY said 49%)	35%, the brand communicated.	Increased - Puma reported that their synthetic material volume increased in line with their sales.
PVH (group level only)	PVH Corp	✓	32936 tonnes, PVH Corp communicated. This information is available on their website at a group level.	↓ (LY said at least 20% according to FY19 report)	25%, the brand communicated.	Decreased - PVH Corp stated that across their brands, over the past 5 years their synthetic fibre usage has decreased by 3% from 45387 MT in 2018, 28% total fiber usage to 32936 MT in 2021 representing 25% total fiber usage.

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE

EMAILED SEE YES NO N/A

Brand/retailer	Group	Engaged 2022	Tonnes of synthetics/year	Relationship to 2021 synthetic usage (↑or↓)	Synthetics as % of total fibre usage	Increase/decrease in synthetic usage over the last 5 years
	Tesco plc	✓	14367 tonnes, Tesco communicated. This information is not publicly available on website.	↓(LY said 37%)	32%, the brand communicated.	Decrease - Tesco communicated that their use of polyester and nylon as major synthetics materials is trending downward from 33% in 2019, 31% in 2020 and 28% in 2021.
	PVH Corp	✓ (PVH only)	Figures disclosed only for parent group.	See PVH Corp	Figures disclosed only for parent group.	See PVH Corp
	Benetton	✓	3177 tonnes, Benetton Group communicated.	↓ (LY said 18%)	19%, the brand communicated.	Increased - Benetton Group communicated it has increased over the last 5 years.
	Zlabels	✓	3100 tonnes, Zalando communicated. The brand shares details of weight and material mix in its sustainability report.	⊘	28%, the brand communicated.	Increased - Zalando attributed this increase to the rise in overall number of products sold.
	ALDI SÜD GmbH & Co	✉ *	Did not engage information not available on website.	⊘	49%, Aldi communicated in an email response. This information is not available on it website.	Did not disclose, not available on website.
	⊘	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website. Last year Asics reported a stable use of synthetics.
	Boohoo Group Plc	✓	30616 tonnes, Boohoo communicated. This information is not available on their website.	⊘	64%, the brand communicated.	Decreased - Boohoo communicated there was a decrease. They stated 'In 2020 our synthetic fibre usage was 66% of our fibre mix and in 2021 this was 64%.' They attributed the decrease to category and product movement.

Brand/retailer	Group	Engaged 2022	Tonnes of synthetics/year	Relationship to 2021 synthetic usage (↑or↓)	Synthetics as % of total fibre usage	Increase/decrease in synthetic usage over the last 5 years
	Burberry Group plc	✓	Did not disclose, information not available on website.	⊘	Did not disclose, information not available on website.	Increased - Burberry communicated that this increase was due to expansion of their outerwear collection.
	Gap Inc	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website, only state that cotton represents the majority of Gap Inc.'s fiber consumption across all brands.	Did not engage, information not available on website.
	Gildan Activewear Inc.	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.
	Costco	✉ *	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.
	Monsoon Ltd	✗	Did not engage this year, information not available on website. Last year, they communicated 167 tonnes in 2020/21 based on breakdown figures provided which said 132 of virgn fossil fuel based fabrics and 35 tonnes of sustainable/recycled fabric.	⊘ (LY - disclosed 38% synthetic)	Did not engage this year, information not available on website. Last year, they communicated 38% of textile products are made with synthetics.	Did not engage, information not available on website. Last year, Monsoon communicated it has experienced an increase in volume of synthetics and forsees an increase in the future.
	Wm Morrison Supermarkets plc	✓	The brand said they did not have this information available.	LY said 47%	This information was not disclosed and is not available on their website.	Increased - Morrisons communicated this has risen in line with sales growth.
	luxxotica	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE

EMAILED SEE YES NO N/A

Brand/retailer	Group	Engaged 2022	Tonnes of synthetics/year	Relationship to 2021 synthetic usage (↑or↓)	Synthetics as % of total fibre usage	Increase/decrease in synthetic usage over the last 5 years
	Authentic Brands Group	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.
Sainsbury's		✓	Did not disclose, information not available on website.		NA - LY said 48% contained synthetics, this year said they don't share that info - inconsistent response.	Did not disclose, information not available on website. Sainsbury's reported an increase with no detail on figures.
SHEIN		✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.
	Wolverine Worldwide	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.
	Target Corporation	✗	Did not engage, information not available on website.	⊘	No, only discloses volume of recycled polyester, which was 23,100 tons in FY21, an increase from 20,300 in FY20.	Did not engage, information not available on website.
	VF Corporation	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.

Brand/retailer	Group	Engaged 2022	Tonnes of synthetics/year	Relationship to 2021 synthetic usage (↑or↓)	Synthetics as % of total fibre usage	Increase/decrease in synthetic usage over the last 5 years
	VF Corporation	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.
	Fast Retailing Co (Fast Retailing Group)	✓	Did not disclose, information not available on website.	⊘	Did not disclose, information not available on website.	Fast Retailing did not disclose this information and it is not publicly available.
VAN HEUSEN	PVH Corp	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.
	VF Corp (group level only)	✗	Did not engage, information not available on website.	⊘	Approx 63% based on information provided on 'top materials' polyester, rubber, nylon, polyurethane.	Did not engage, information not available on website.
	Walmart	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.
	Kantoor Brands	✗	Did not engage, information not available on website.	⊘	Did not engage, information not available on website.	Did not engage, information not available on website.

*Responses from brands in emails, but with no completion of the questionnaire were not considered as engagement.

Annex IV: Table on the policies to tackle microfibre pollution

Brand/retailer	Engaged 2022	Summary of microfibre release policies	Phase out the use of synthetics in line with the precautionary principle	Phase out the use of synthetics in children's collections	Set measures and maximum thresholds for the number of microfibres released during production, use phase, and end of life	Set rules on industrial pre-washing & wastewater filtering	Address problem through membership of multi-stakeholder initiatives
Reformation	✓	Reformation communicated that they follow a microfibre policy to phase out the use of synthetics in line with the precautionary principle. The brand referenced its fibre standards, as well as providing guidance for customers to minimise microfibre shedding during the garment use phase.	✓	⊘	⊘	⊘	⊘
BALENCIAGA	✓ Same answers all on behalf of Kering Group	Policies disclosed for parent group, Kering.	⊘	⊘	✓	✓	✓ TMC
BOTTEGA VENETA	✓ Same answers all on behalf of Kering Group	Policies disclosed for parent group, Kering.	⊘	⊘	✓	✓	✓ TMC
GUCCI	✓	Policies disclosed for parent group, Kering.	⊘	⊘	✓	✓	✓ TMC
INDITEX	✓	Inditex communicated that they have policies on industrial pre-washing and wastewater filtering and are members of TMC. In its response, the retailer acknowledged textile fragmentation is a priority area of research and that they are working to promote design options that reduce microfibre shedding. As part of their Green to Wear standard, Inditex has made it a mandatory requirement for all wet processing facilities in the supply chain to manage filtered textile waste as solid waste.	⊘	⊘	⊘	✓	✓ TMC
KERING (group level only)	✓	Kering Group is a member of TMC and requires its suppliers to comply with its sustainability principles which include mitigation measures to reduce microfibre leakage at the manufacturing phases. The group communicated they are signatories of the Control of Textile Fibre Fragmentation in Wastewater guidelines and have launched a pilot via their Materials Innovation Lab to test industrial scale microfibre filtration system in Kering's supply chain.	⊘	⊘	✓	✓	✓ TMC

Brand/retailer	Engaged 2022	Summary of microfibre release policies	Phase out the use of synthetics in line with the precautionary principle	Phase out the use of synthetics in children's collections	Set measures and maximum thresholds for the number of microfibres released during production, use phase, and end of life	Set rules on industrial pre-washing & wastewater filtering	Address problem through membership of multi-stakeholder initiatives
YVES SAINT LAURENT	✓	Policies disclosed for parent group, Kering.	Same response for all Kering brands	⊘	✓	✓	✓ TMC
UNIQLO (Fast Retailing Group)	✓	Fast Retailing Group communicated they have multiple microfibre policies in place including setting thresholds, rules on washing and wastewater filtering, as well as involvement in multi-stakeholder initiatives. They are involved with TMC and the Japan Clean Ocean Material Alliance (CLOMA), a cross-industry group that promotes the sustainable use of plastic products.	⊘	⊘	✓	✓	✓ TMC and Japan Clean Ocean Material Alliance
adidas	✓	Adidas is a co-founding member of TMC. They communicated they have established a cross-functional working group and are collaborating with supply chain partners and research institutes. Adidas is partnering with ZDHC to integrate an effluent treatment plant evaluation into their industry platform. There are no plans to phase out synthetics as a precautionary principle or set thresholds on microfibre release.	⊘	⊘	⊘	⊘	✓ TMC/ZDHC
ASDA	✓	ASDA communicated they are active signatories to the Microfibre Consortium but did not provide evidence of any other actions taken to minimise microfibre release.	⊘	⊘	⊘	⊘	✓ TMC
boohoo	✓	Boohoo is reliant on its membership of TMC as its only policy to manage microfibre release.	⊘	⊘	⊘	⊘	✓ TMC
Calvin Klein	✓ see PVH	Policies disclosed for parent group, PVH Corp.	⊘	⊘	⊘	⊘	✓ TMC

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE

EMAILED SEE YES NO N/A

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE EMAILED SEE YES NO N/A

Brand/retailer	Engaged 2022	Summary of microfibre release policies	Phase out the use of synthetics in line with the precautionary principle	Phase out the use of synthetics in children's collections	Set measures and maximum thresholds for the number of microfibres released during production, use phase, and end of life	Set rules on industrial pre-washing & wastewater filtering	Address problem through membership of multi-stakeholder initiatives
G-STAR RAW	✓	G-Star RAW is reliant on membership of multi-stakeholder initiatives like the Textile Exchange as its only microfibre policy. They communicated they have also supported the work of the Plastic Soup Foundation.	⊘	⊘	⊘	⊘	✓ Textile Exchange
GAP	✗	Did not engage. In their 'Approach to Circularity' statement on their website, Gap Inc. list their membership of TMC, stating that they are 'contributing fibre samples to researchers from the University of Leeds to improve understanding of techniques that reduce shedding in garment production.'	⊘	⊘	⊘	⊘	✓ TMC
H&M	✓	H&M Group are reliant on their membership of TMC as their microfibre policy. The brand is a member of the initiative's advisory board. H&M Group participates in research projects with the Hong Kong Research Institute of Textiles and Apparel related to microfibre shedding.	⊘	⊘	⊘	⊘	✓ TMC, HKRITA
Levi's	✓	Levi Strauss & Co is reliant on its membership of multi-stakeholder initiatives for its microfibre policy. It is engaged with multiple organisations including the Textile Exchange, Sustainable Apparel Coalition, Fashion for Good and the American Apparel & Footwear Association.	⊘	⊘	⊘	⊘	✓
lululemon	✉	Did not engage. The brand lists TMC in the partnerships section of its website. Lululemon does not provide any statement on its microfibre policies beyond this membership, despite acknowledging that microplastics are polluting freshwater sources.	⊘	⊘	⊘	⊘	✓ TMC
MARKS & SPENCER	✉	Did not engage. M&S are reliant on membership of TMC as its microfibre policy. In its sustainability report, it acknowledges the risks of microfibres, and claim that as a member of TMC, they are 'aiming for effective solutions to mitigate textile fragmentation by 2030.'	⊘	⊘	⊘	⊘	✓ TMC
Morrisons	✓	The company communicated that Nutmeg is a member of TMC and did not provide any further detail on microfibre policies.	⊘	⊘	⊘	⊘	✓ TMC

Brand/retailer	Engaged 2022	Summary of microfibre release policies	Phase out the use of synthetics in line with the precautionary principle	Phase out the use of synthetics in children's collections	Set measures and maximum thresholds for the number of microfibres released during production, use phase, and end of life	Set rules on industrial pre-washing & wastewater filtering	Address problem through membership of multi-stakeholder initiatives
next	✓	Next communicated that they are members of TMC and will set a measure and maximum threshold for microfibre release from finished products and during fabric product manufacturing.	⊘	⊘	✓	⊘	✓ TMC (left this blank but filled in with public info available)
NIKE	✗	Did not engage. Nike has a detailed microfibres statement on its website, which discusses global standardised testing methodology, research, supplier and industry engagement, as well as consumer solutions. The majority of the brand's work is focused on research or membership in initiatives like TMC. Nike requires its suppliers to meet the requirements of the ZDHC Wastewater Guideline.	⊘	⊘	⊘	⊘	✓ TMC, ZDHC Waste Water guidelines for supplier engagement
patagonia	✉	Did not engage. Patagonia is a member of TMC. It has a large volume of information on its website about microfibres and the research projects they have participated with the likes of North Caroline State University and Ocean Wise to better understand microfibre release. However, it is hard to find clear microfibre management policies in the public domain or any specific targets related to this.	⊘	⊘	⊘	⊘	✓ TMC
PRIMARK	✓	Primark is reliant on its membership of TMC as its microfibre policy. They state that 'We believe our active engagement in TMC is a critical start towards creating solutions to address microfibre pollution.'	⊘	⊘	⊘	⊘	✓ TMC
PUMA	✓	Puma is reliant on its membership of TMC as its microfibre policy. The brand communicated it will explore pre-washing and wastewater filtering through ZDHC and their reviewed wastewater Quality Guidelines in the future.	⊘	⊘	⊘	⊘	✓ TMC
PVH Corp (group level only)	✓	PVH Corp communicated it will be joining TMC this year and is working to eliminate hazardous chemicals and microfibres from wet processing activities.	⊘	⊘	⊘	⊘	✓ TMC
TARGET	✗	Did not engage. Target publicly discusses its membership of TMC as part of its efforts to reduce the impact of products and water management. The retailer shares that it funded research with Ocean Wise and the Outdoor Industry Association.	⊘	⊘	⊘	⊘	✓ TMC, Outdoor Industry Association

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE EMAILED SEE YES NO N/A

Brand/retailer	Engaged 2022	Summary of microfibre release policies	Phase out the use of synthetics in line with the precautionary principle	Phase out the use of synthetics in children's collections	Set measures and maximum thresholds for the number of microfibres released during production, use phase, and end of life	Set rules on industrial pre-washing & wastewater filtering	Address problem through membership of multi-stakeholder initiatives
	✓	Tesco is reliant on its membership of TMC as its only microfibre policy.	⊘	⊘	⊘	⊘	✓ TMC
	✗	Did not engage. Public information suggests that the North Face is reliant on its membership of multi-stakeholder initiatives. In its parent company, VF Corp, 2020 Made for Change report, it states that 'The North Face' brand belongs to the American Association of Textile Chemists and Colorists microfibre shedding test method development committee and collaborates with the Outdoor Industry Association (OIA) and The Microfibre Consortium on research initiatives.	⊘	⊘	⊘	⊘	✓ TMC, Outdoor Industry Association, Ocean Conservancy
	✓ see PVH	Policies disclosed for parent group, PVH Corp.	⊘	⊘	⊘	⊘	✓ TMC
	✓	Zalando communicated they address release through membership of multi-stakeholder initiatives, but did not provide any names of organisations or projects. Any further information on microfibre policy management is not available and there is no mention of microfibres in its Sustainability Progress Report 2021.	⊘	⊘	⊘	⊘	✓
	✉	Did not engage, information not available on website.	⊘	⊘	⊘	⊘	⊘
	✗	Did not engage, information not available on website.	⊘	⊘	⊘	⊘	⊘
	✗	Did not engage. Despite discussing the problems of microfibres in its Circular Design Handbook, ASOS is found to have no concrete policies or targets in place that are available publicly.	⊘	⊘	⊘	⊘	⊘
	✓	Bonprix communicated they currently have no policies in place.	⊘	⊘	⊘	⊘	⊘

Brand/retailer	Engaged 2022	Summary of microfibre release policies	Phase out the use of synthetics in line with the precautionary principle	Phase out the use of synthetics in children's collections	Set measures and maximum thresholds for the number of microfibres released during production, use phase, and end of life	Set rules on industrial pre-washing & wastewater filtering	Address problem through membership of multi-stakeholder initiatives
	✓	Burberry currently have no policies in place. The brand communicated that they are 'exploring potential actions on this topic.' and have engaged with consortiums, research centres and peers to verify what the options available.	⊘	⊘	⊘	⊘	⊘
	✓	C&A currently have no policies in place. The brand communicated they are planning to have a roadmap to address this issue by 2023.	⊘	⊘	⊘	⊘	⊘
	✓	Dressmann currently have no policies in place. The brand communicated that they are 'following research and development closely' and that as of today 'there is no good measurable evidence for which types of fabrics types/constructions are better or worse.'	⊘	⊘	⊘	⊘	⊘
	✓	Esprit communicated they have no policies in place.	⊘	⊘	⊘	⊘	⊘
	✗	Did not engage, information not available on website.	⊘	⊘	⊘	⊘	⊘
	✗	Did not engage. Hugo Boss acknowledges the problem of microplastic pollution and microfibres on its website but has no public facing policies.	⊘	⊘	⊘	⊘	⊘
	✉	Did not engage, information not available on website.	⊘	⊘	⊘	⊘	⊘

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE

EMAILED SEE YES NO N/A

Brand/retailer	Engaged 2022	Summary of microfibre release policies	Phase out the use of synthetics in line with the precautionary principle	Phase out the use of synthetics in children's collections	Set measures and maximum thresholds for the number of microfibres released during production, use phase, and end of life	Set rules on industrial pre-washing & wastewater filtering	Address problem through membership of multi-stakeholder initiatives
LINDEX	✓	Lindex communicated they have no policies in place but intend to develop these over the next year.	∅	∅	∅	∅	∅
MONSOON	✗	Did not engage, information not available on website.	∅	∅	∅	∅	∅
NEW LOOK	✗	Did not engage, information not available on website.	∅	∅	∅	∅	∅
OAKLEY	✗	Did not engage, information not available on website.	∅	∅	∅	∅	∅
Reebok	✗	Did not engage, information not available on website.	∅	∅	∅	∅	∅
Sainsbury's	✓	Sainsbury's has no microfibre policies. The company communicated they are 'investigating the most effective models from those currently available.'	∅	∅	∅	∅	∅
SHEIN	✗	Did not engage, information not available on website.	∅	∅	∅	∅	∅

Brand/retailer	Engaged 2022	Summary of microfibre release policies	Phase out the use of synthetics in line with the precautionary principle	Phase out the use of synthetics in children's collections	Set measures and maximum thresholds for the number of microfibres released during production, use phase, and end of life	Set rules on industrial pre-washing & wastewater filtering	Address problem through membership of multi-stakeholder initiatives
Sweaty Betty	✗	Did not engage. Sweaty Betty do not publicly share any microfibre policies, they only publish content that encourages customers to look after their garments in a way to reduce microfibre shedding.	∅	∅	∅	∅	∅
Timberland	✗	Did not engage, information not available on Timberland website, only for parent company VFC.	∅	∅	∅	∅	∅
UNITED COLORS OF BENETTON (Benetton Group)	✓	Benetton Group has no microfibre policies in place.	∅	∅	∅	∅	∅
VAN HEUSEN	✗	Did not engage, information not available on website.	∅	∅	∅	∅	∅
VF Corporation (group level only)	✗	Did not engage. With little public disclosure, it is hard to ascertain VF Corps microfibre policies, however in a CDP document, VF reported it has established a cross-functional microfibre working group among VF brands and 'engaged with consumers on this issue by investing in microfibre shedding research and consumer-facing educational material.'	∅	∅	∅	∅	∅
Walmart	✗	Did not engage, information not available on website.	∅	∅	∅	∅	∅
Wrangler	✗	Did not engage, information not available on website.	∅	∅	∅	∅	∅

*Responses from brands in emails, but with no completion of the questionnaire were not considered as engagement.

Annex V: Table on climate targets

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE

EMAILED SEE YES NO N/A

Brand/retailer	Engaged 2022	Summary of main climate targets	Commitment to reduce absolute GHG emissions across their supply chains by at least 55% by 2030? (Y/N)
ASDA	✓	George – ASDA disclosed it has the goal to reduce emissions by 25% by 2032. It also aims to become net zero by 2040 and reduce emissions by 90%, against the baseline year of 2020. However, both targets are intensity based. The retailer shared its current progress towards both Scope 1, 2 and 3 goals which was a 4.1% reduction in 2021 from 2020. Their goal of becoming an 'end-to-end' net zero business is reflected in their 2022 ESG report.	✗
BALENCIAGA	✓ Same answers - all on behalf of Kering Group	See parent group Kering.	SEE
BOTTEGA VENETA	✓ Same answers - all on behalf of Kering Group	See parent group Kering.	SEE
BURBERRY	✓	Burberry communicated it has the overarching goal to be climate positive by 2040. The brand recorded it has reduced Scope 1 and 2 emissions by 93% in 2022, against the baseline year of 2016/2017. It has recently committed to reducing absolute Scope 3 emissions by 46% by 2030 against the baseline year of 2019. These targets have been verified by the SBTi. This information is publicly available via Burberry's latest annual report.	✗
Calvin Klein	✓ see PVH	See parent group PVH Corp.	SEE
GUCCI	✓	See parent group Kering.	SEE
HUGO BOSS	✗	Did not engage. Hugo Boss has the goal to be carbon neutral in its own operations by 2030 and across its entire value chain by 2045. It has set absolute targets of reducing CO2 emissions by 50% across Scope 1 – 3 by 2030. Its Scope 1 and 2 targets have been verified by the SBTi. The company states it has achieved a reduction of Scope 1-3 CO2 emissions of 13%. This information is available via its 2021 sustainability report.	✗

Brand/retailer	Engaged 2022	Summary of main climate targets	Commitment to reduce absolute GHG emissions across their supply chains by at least 55% by 2030? (Y/N)
INDITEX	✓	Inditex communicated it has the goal to reduce absolute Scope 1 and 2 emissions by 2030 against the baseline year of 2018. They aim to reduce Scope 3 GHG emissions by 20% by 2030 against the same baseline. The retailer shared it has reduced Scope 1 and 2 emissions by 86% from 2018 and have reduced Scope 3 emissions by 7%. The SBTi has verified its Scope 1 and 2 targets. This information is available via Inditex's Statement on Non-Financial Information 2021.	✗
KERING (group level only)	✓	Kering has the target to be net zero by 2050. It has the absolute reduction target of 90% across Scope 1 and 2 emissions by 2030, against a baseline year of 2015. It has an intensity target to reduce Scope 3 emissions by 70% by 2030 per unit of value added, against a baseline year of 2015. It aims to achieve 100% renewable electricity sourcing by 2022. Its Scope 1 and 2 targets have been verified by the SBTi. As of December 31 2021, Kering reported it had achieved 92% of its target for all its operations currently covered in scopes 1 and 2 of the GHG Protocol, according to its website. Kering publishes its climate targets and strategy online.	✗ Kering has an intensity based target to reduce Scope 3 GHG emissions by 70% per unit of value added by 2030 from a 2015 base year.
Levi's	✓	Levi Strauss & Co has the goal to achieve net zero by no later than 2050. The brand has a 40% absolute reduction goal in emissions across its supply chain by 2025 against the baseline year of 2016. It reported that it had achieved 22% progress towards this goal. It aims to achieve 90% absolute reduction in GHG emissions associated with all company-operated facilities by 2025 against the same baseline of 2016, it has achieved 66% towards this goal. Levi Strauss & Co aims to achieve 100% renewable electricity in all company-operated facilities by 2025 and reported this now accounts for 85% of total electricity. The brand's Scope 1 and 2 targets have been verified by the SBTi. Information on targets, as well as progress, is available online.	✗
next	✓	Next communicated it has the goal to reduce Scope 1 and 2 absolute carbon emissions by 55% by 2030 against a 2016/2017 baseline. It achieved a 45% reduction towards this goal in 2022. It has the goal to reduce Scope 3 carbon emissions by 40% by 2030 against a 2019/2020 baseline per £1m sales and reported achieving a 12% reduction towards this as of 2022. The Scope 1 and 2 targets have been verified by the SBTi. This information on targets and progress is available online. The retailer provides detailed disclosure on Scope 1 -3 carbon emissions volumes.	✗
PUMA	✓	Puma communicated it has the goal of an absolute reduction in Scope 1 and 2 emissions by 35% by 2030 against the baseline year of 2017. It aims to reduce its Scope 3 GHG emissions from purchased goods and services by 60% per million euro sales by 2030. The brand has the target to become net zero by 2050. Its Scope 1 and 2 targets have been verified by the SBTi. Puma reported they achieved a 12% decrease in its Scope 3 emissions in 2021 from 2017 and exceeded its Scope 1 and 2 reduction targets. This information is available online.	✗ Puma has the goal to reduce Scope 3 GHG emissions from purchased goods and services 60% per million euro sales by 2030 but does not present absolute reduction goals.
PVH Corp (group level only)	✓	PVH communicated it has the target to achieve 100% renewable electricity in its offices, warehouses and stores and aims to achieve a 30% reduction in supply chain emissions by 2030, against the baseline year of 2017. Its Scope 1 and 2 targets and goals on renewable energy procurement have been verified by the SBTi. It reported that it has achieved a 28% reduction in value chain emissions compared to the 2017 baseline. The brand's targets and progress are publicly disclosed.	✗

Brand/retailer	Engaged 2022	Summary of main climate targets	Commitment to reduce absolute GHG emissions across their supply chains by at least 55% by 2030? (Y/N)
Reformation	✓	Reformation has the goal to be 'climate positive' by 2025. The brand communicated it aims to reduce its Scope 1 and 2 GHG emissions by 42% by 2030 against the baseline year of 2021. Reformation is certified as carbon neutral. Its Scope 1 and 2 targets have been verified by the SBTi. Whilst it highlights that their emissions reductions by 2025 will come from improved material mix, there is no explicit mention of absolute Scope 3 targets on its website or disclosed to us.	✗
YVES SAINT LAURENT	✓	See parent group Kering.	👁️ See Kering
TOMMY HILFINGER	✓ see PVH	See parent group PVH Corp.	👁️ See PVH
adidas	✓	Adidas has the goal to become carbon neutral across its own operations by 2025 and reduce their 'per product carbon footprint by 15%'. The retailer communicated they will reduce their absolute footprint, including supply chain emissions by -30% by 2030, against the baseline year of 2017. These targets have been approved by the SBTi. Adidas did not disclose their current progress towards these goals.	✗
ALDI	✉️	Did not engage. Aldi has the public facing goal to reduce their overall operational GHG emissions by 26% by the end of 2025 against the baseline year of 2016. On its website, Aldi states that they are 'committed to encouraging our strategic suppliers, which are responsible for 75% of product related emissions, to work towards setting science-based emissions targets by the end of 2024.' Aldi does not provide specific emissions reduction targets for its apparel products.	✗
asics	✗	Did not engage. Asics has multiple climate targets. By 2030, the brand aims to achieve a 50% reduction in the amount of energy used in Tier 1 supplier factories (vs 2015 baseline) and 85% renewable electricity used in Tier 1 supplier factories. They aim to achieve a 63% reduction in absolute Scope 3 CO2 emissions against a 2015 baseline. Their Scope 1 and 2 targets have been verified by the SBTi. The company disclosed their 2021 progress, stating they have achieved a 28% reduction in CO2 emissions from direct operations and a 19.7% reduction across their supply chain, against a 2015 baseline. This information can be found in their sustainability report.	✗
ASOS	✗	Did not engage. ASOS has the public facing commitment to achieve net zero carbon emissions across its value chain by 2030 and be carbon neutral in its direct operations by 2025. The retailer aims to reduce its Scope 1 and 2 emissions by 87% by 2030 against a 2018/2019 baseline. ASOS links a few of its climate targets to profit such as reducing own brand product emissions/£ of profit and transportation emissions by 58% by 2030 against a 2018/2019 baseline. ASOS has published a goal to have two thirds of third-party brands set targets in line with SBTi requirements by 2025. This information is available on its website, however there is no disclosure about current progress towards these goals.	✗ Aims to be net zero across value chain by 2030 but doesn't publicly specify an absolute reduction target for Scope 3 emissions.

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE

✉️ EMAILED 👁️ SEE ✓ YES ✗ NO 🚫 N/A

Brand/retailer	Engaged 2022	Summary of main climate targets	Commitment to reduce absolute GHG emissions across their supply chains by at least 55% by 2030? (Y/N)
bonprix	✓	Bonprix communicated they do not have an absolute emissions reduction goal yet, and climate targets are set for their parent company Otto Group. The Otto Group has recently joined the SBTi, and has a target of reducing Scope 1, 2 and some of Scope 3 emissions by 40% by 2025, against the baseline year of 2018. The brand stated this scope includes emissions from own operations such as locations/buildings, transports (inbound/procurement as well as distribution), employee mobility (business travels, company and fleet cars) and emissions from external computer data centres and cloud services. They disclosed their progress which is a 20% reduction from the years of 2018 to 2020. Information for Otto Group is available online.	✗
boohoo	✓	Boohoo communicated it has the goal to achieve 52% carbon emissions reduction across their value chain 'relative to growth' by 2030, against the baseline year of 2020. By 2025, the group wants to achieve a 4.2% absolute reduction in operational emissions and a 7% reduction in value chain emissions each year. The SBTi has verified their Scope 1 and 2 targets. Boohoo shared their current progress towards their goals, or lack of it given that their emissions increased 29% from 2020 to 2021, some of which was attributed to 'the growth of our business operations.' This information is publicly available in its 2022 Sustainability Report.	✗
C&A	✓	C&A communicated it has the goal to reduce Scope 1 - 3 emissions by 30% by 2030, against the baseline year of 2018. This target has been verified by the SBTi and can be found on their website. The retailer did not disclose their current progress towards these goals, claiming that 'Due to the pandemic and some disruptions in our supply chain, we were not able to track the progress properly within this time', but will resume publishing updates from 2022 onwards.	✗
Dressmann	✓	Dressmann communicated climate targets of its parent company, Varner Group. The group aims to reduce absolute Scope 1 and 2 emissions by 50% by 2030, against the baseline year of 2019. It has set a 50% intensity-based reduction in Scope 3 emissions, per million of NOK revenue. The brand relayed that this would equate to approximately a 32% absolute reduction, following their current growth trajectory. It was reported Varner achieved a 1% decrease in all Scope 1 - 3 emissions in 2021 against a 2019 baseline. Varner Group has committed to the SBTi. This information is only available at a group level via Varner's sustainability report.	✗ Parent group Varrner have the target to achieve 55% reduction in scope 3 emissions per million NOK annual revenue by 2030, but this is not the same as absolute reduction targets.
ESPRIT	✓	Esprit communicated it had an absolute reduction goal to reduce Scope 1 and 2 emissions by 30% by 2021, against the baseline year of 2017/2018. There is no mention of scope 3 emissions. The brand reported they had achieved 77% progress towards their 2021 goal. There is some information available on the Esprit website, however it appears to be outdated, with no updates from 2022.	✗
G-STAR RAW	✓	G-Star RAW has the goal to reduce all Scope 1 - 3 emissions by 50% by 2030 against the baseline year of 2019. The brand disclosed their progress on Scope 1 and 2 emissions, saying they had achieved 54% between 2016 and 2021. Their climate goals and calculations are available via their sustainability report. The brand is listed as committed to the SBTi.	✗

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE

EMAILED SEE YES NO N/A

Brand/retailer	Engaged 2022	Summary of main climate targets	Commitment to reduce absolute GHG emissions across their supply chains by at least 55% by 2030? (Y/N)
GAP	✗	Did not engage. Gap Inc. has the overarching goal of being carbon neutral across its value chain by 2050. It has absolute targets to reduce Scope 1 and 2 emissions by 90% by 2030, against a baseline year of 2017. It aims to reduce its Scope 3 emissions by 30% by 2030, against a 2017 baseline and has committed to 100% renewable energy in its owned and operated facilities by 2030. The SBTi has verified that the Scope 1 and 2, and renewable energy procurement targets are consistent with reductions required to keep warming to 1.5°C. Gap Inc. shares its progress, reporting that in 2021, they had achieved; 37% renewables for owned and operated facilities, a decrease in Scope 1-2 emissions by 64% against a 2017 baseline and a decrease in Scope 2 emissions by 25% against 2017 baseline. This information is provided at a group level via its website, but does not provide details on individual brand performance.	✗
GILDAN	✗	Did not engage. Gildan has recently signed up to the SBTi and states it has the target to reduce Scope 1 and 2 emissions by 30% by 2030, against a baseline year of 2018. There is no information on Scope 3. Information on these goals is publicly available via their 2021 Annual Report.	✗
H&M	✓	H&M Group has the goal to be net zero by 2040. It has set absolute reduction targets for Scope 1 – 3. The retailer aims to reduce Scope 1 and 2 emissions by 56% by 2030 and Scope 3 emissions by 56% by 2030, against a baseline year of 2019. The SBTi has verified that the Scope 1 and 2, and renewable energy procurement targets are consistent with reductions required to keep warming to 1.5°C. In its response, it shared current progress as of 2021 which was a reduction in Scope 1 and 2 emissions by 22% and Scope 3 emissions by 9% compared to 2019. This information is available online via their sustainability disclosure document.	✗
LINDEX	✓	Lindex communicated it has the goal to be climate neutral in its own operations by 2023. The brand stated it aims to achieve 50% reduction in emissions across its value chain by 2030, against the baseline year of 2017. In its response, it stated its progress as of 2021 was 22% across all scopes. However, it did not directly share with us that its Scope 3 emissions has increased from the years of 2020 to 2021 according to a statement found in its 2021 Sustainability Report. Information about climate targets and performance can be found on its website.	✗
lululemon	✉	Did not engage. Lululemon has the target of 60% absolute reduction of GHG emissions across all owned and operated facilities by 2030 against a baseline year of 2018. It has set a 60% intensity reduction of emissions across its supply chain by 2030 against a baseline year of 2018. Its Scope 1 and 2 targets have been verified by the SBTi. The brand reported it achieved an 82% reduction in 2021 compared to 2018 for Scope 1 and 2 emissions. However, in 2021, their Scope 3 emissions intensity increased by 4% from the 2018 baseline and the total Scope 3 emissions in (TCO2e) has increased from 674,469 in 2020 to 923,894 in 2021 (+36%). This information is publicly available via its impact report.	Lululemon has set an intensity based target to reduce GHG emissions by 60% by 2030, against the baseline year of 2018 base year. ✗
MARKS & SPENCER	✉	Did not engage. M&S has the goal to be net zero by 2040 across its value chain. The retailer aims to be net zero in its own operations by 2035. The retailer has a target to reduce its carbon emissions by 55% by 2030 against a baseline year of 2016/2017. They have set the nearer term target to reduce emissions by 34% by 2025. On the website it does not specifically state whether this is Scope 1 and 2 only or includes Scope 3. Its Scope 1 and 2 targets have been verified by the SBTi. According to the SBTi, in 2017 when it joined, it committed to reduce scope 3 GHG emissions by 13.3 MtCO2e between 2017 and 2030. Information on climate targets can be found online but nothing on progress towards these goals can be identified in its sustainability report.	✗

Brand/retailer	Engaged 2022	Summary of main climate targets	Commitment to reduce absolute GHG emissions across their supply chains by at least 55% by 2030? (Y/N)
Morrisons	✓	In its response, Morrisons communicated Nutmeg has no overarching climate targets. However Morrisons at a broad level, has the target to achieve net zero in its own operations by 2040, covering Scope 1 and Scope 2 emissions. On its website, it also commits to Net Zero Agriculture by 2030 which forms part of their scope 3 footprint.	✗
NEW LOOK	✗	Did not engage. New Look aims to be climate positive by 2040 and claims it achieved carbon neutrality for its own operations in 2019. They have set the target of reducing the GHG footprint of products by 50%. The brand reported a 'significant' increase in emissions from FY21 due to 'trading conditions'. This information is available via its 2022 sustainability report, including details on Scope 1-3 emissions performance.	✗
NIKE	✗	Did not engage. Nike has the goal to achieve 70% absolute reduction of GHG emissions in its owned and operated facilities by 2025 against a baseline year of 2020. It has the target to reduce GHG emissions by 0.5m tonnes through incorporating 'environmentally preferred' materials. It aims to reduce the carbon footprint by 30% across its extended supply chain by 2030. Nike reports on its progress, stating it had achieved 43% reduction in GHG emissions against its baseline year of 2020 towards the Scope 1 and 2 goals, which have been verified by the SBTi. This information is available online.	✗
patagonia	✉	Did not engage. Whilst Patagonia has the goal to be carbon neutral by 2025, they do not disclose a road map on how this will be achieved with specific targets related to Scope 1-3 emissions reduction.	Whilst it has the goal to become carbon neutral by 2025, Patagonia doesn't specify what its Scope 3 reduction targets are and if they were to be intensity of absolute based.
PRIMARK	✓	Primark communicated it has the goal to halve carbon emissions across their value chain by 2030 against a baseline year of 2018/2019 and confirmed this is an absolute reduction target. Primark has committed to the SBTi. Information on their targets can be found online and the brand stated they will formally be reporting on progress in November 2022.	✗
Sainsbury's	✓	Sainsbury's communicated it has the goal to be net zero across Scope 1 and 2 by 2035. Sainsbury's aims to reduce its absolute Scope 3 GHG emissions by 30% by 2030 against the baseline year of 2018/2019. It shared it has reduced its Scope 1 and 2 emissions by 20% compared to a baseline year of 2018/2019. There are no specific climate targets set just for TU clothing. This information can be found online.	✗
Sweaty Betty	✗	Did not engage. Sweaty Betty has committed to a 42% absolute reduction in Scope 1 and 2 GHG emissions against a baseline year of 2020. It has committed to a reduction in Scope 3 emissions from Sweaty Betty branded purchased goods and services, and upstream transportation and distribution 52% per unit of value added by 2030. The brand's Scope 3 emissions have increased 24.8% from 2020 to 2021. This information is available online.	✗

FRONTRUNNERS COULD DO BETTER TRAILING BEHIND RED ZONE

EMAILED SEE YES NO N/A

Brand/retailer	Engaged 2022	Summary of main climate targets	Commitment to reduce absolute GHG emissions across their supply chains by at least 55% by 2030? (Y/N)
	✗	Did not engage. Target has the overarching goal to be net zero by 2040. The retailer has committed to achieving 50% absolute reduction in Scope 1 and 2 emissions by 2030 against the baseline year of 2017. Its Scope 1 and 2 targets have been verified by the SBTi. It aims for a 30% absolute reduction in Scope 3 emissions against a 2017 baseline year by 2030. Target's Scope 3 emissions increased 16.5% from 2019 to 2020 according to its 2021 CSR report. This information on targets and climate performance is available online.	✗
	✓	Tesco has the goal to be carbon neutral in its own operations by 2035 and has the target of being net zero across its value chain by 2050. Its Scope 1 and 2 targets have been verified by the SBTi. In 2021, the brand communicated it achieved a 52% reduction in Scope 1 and 2 emissions compared to a 2015 baseline but did not directly share progress on Scope 3 targets. According to Tesco's climate and energy factsheet, Group 'selected Scope 3 emissions' have increased from FY2020/21 to FY2021/22 by 22.9%. This information is available online.	✗
	✗	Did not engage, no publicly available information on climate targets at brand level, only group level for VF Corp.	SEE
	✗	Did not engage, no publicly available information on climate targets at brand level, only group level for VF Corp.	SEE
	✓	Fast Retailing communicated it has the goal to reduce Scope 1 and 2 emissions by 90% by 2030 against a baseline year of 2019. It aims to reduce absolute Scope 3 emissions from raw materials, fabric and garment production by 20% over the same time frame. Its Scope 1 and 2 targets have been verified by the SBTi. The group reported a 8.2% reduction in Scope 1 and 2 in 2021 against the base year of 2019 and a 6.8% reduction in Scope 3 emissions. Information on its climate targets is available online.	✗
	✓	Benetton Group communicated it has set the absolute emissions reduction target of 50% for Scope 1 and 2 emissions by 2030, against the baseline year of 2019. It did not share targets on Scope 3 or disclose progress towards its goals. This information is not available online.	✗
	✗	Did not engage. VFC has the goal to reduce absolute Scope 1 and 2 GHG emissions by 55% by 2030 against the baseline year of 2017. This target has been verified by the SBTi. It aims to reduce absolute Scope 3 GHG emissions from purchased goods and services and upstream transportation by 30% by 2030 against the same base year. It has reported a 66% progress towards its Scope 1 and 2 goal and 8% progress against the Scope 3 2030 goal. This information is available at a group level for VFC online.	✗

Brand/retailer	Engaged 2022	Summary of main climate targets	Commitment to reduce absolute GHG emissions across their supply chains by at least 55% by 2030? (Y/N)
	✗	Walmart has committed to achieving net zero emissions in its own operations by 2040. It has set the target of absolute reduction in Scope 1 and 2 emissions by 35% by 2025 and 65% by 2030 against the base year of 2015. Its Scope 1 and 2 targets have been verified by the SBTi. Walmart reported Scope 2 emissions in 2020 declined by 11% over 2019 and in 2020 Scope 1 emissions increased by approximately 6%. It has set the goal to avoid 1 billion metric tons of Scope 3 CO2e emissions by 2030. This information is available online.	✗
	✗	Did not engage, no publicly available information at brand level. Only for parent group company Kontoor.	✗
	✓	Zalando communicated it has set absolute reduction targets for Scope 1 and 2 by 80% by 2025, against the baseline year of 2017. Its Scope 1 and 2 targets have been verified by the SBTi. Zalando's Scope 3 targets are intensity based and aim to reduce emissions from private label products by 40% per million €. The retailer aims for 90% of its suppliers to set science-based targets by 2025. The retailer reported it has reduced emissions of its own operations by 64% since 2017 and 51% of its supplier base have set science-based targets. This information is available online.	✗
	EMAILED	Did not engage. Costco does not yet have any climate targets in place. On the climate action plan section of its website it states 'Over the next three fiscal years (2022-2024), we will determine Scope 1, 2 and 3 CO2e emissions reduction targets'.	✗
	✗	Did not engage, no publicly available information on climate targets.	✗
	✗	Did not engage, no publicly available information on climate targets.	✗
	✗	Did not engage, no publicly available information on climate targets.	✗
	✗	Did not engage, no publicly available information on climate targets. In Shein's Sustainability Impact Report, the brand states they are 'Currently baselining energy consumption and establishing goals around renewable energy use in our own operations. We look forward to publicly disclosing our baseline GHG emissions calculations.'	✗
	✗	Did not engage, no publicly available information on climate targets.	✗

Annex VI: Table on support for EU textile strategy legislation

✔ YES
 ✘ NO
 ? DON'T KNOW

Brand/retailer	Engaged 2022	Operates in EU?	EPR	Eco modulated fees	Eco-design criteria for textiles	Ambitious reuse and recycling targets		Introduction of recycled content targets	Ban on destruction of unsold items	Improve rules on exports of textile waste	Reduce risk of false green claims	Tax on virgin synthetic fibres	Increase SC transparency	Address release of microplastics from textiles	Ban of chemicals/ substances of concern
adidas	✔	✔	✔	✔	✔	✔		✔	?	✔	✔	?	?	?	?
ASDA	✔	✘ (No stores but ships to EU countries)	✔	?	✔	✔		✔	✔	✔	✔	✔	✔	✔	✔
BALENCIAGA	✔	✔	✔	?	✔	?		?	✔	?	✔	?	✔	✔	✔
bonprix	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔	✔
boohoo	✔	✘ (No stores but ships to EU countries)	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔	✔
BOTTEGA VENETA	✔ Same answers as Kering Group	✔	✔	?	✔	?		?	✔	?	✔	?	✔	✔	✔
BURBERRY	✔	✔	?	?	?	✔		✔	✔	?	✔	?	?	?	✔

✓ YES ✗ NO ? DON'T KNOW

Brand/retailer	Engaged 2022	Operate in EU?	EPR	Eco modulated fees	Eco-design criteria for textiles	Ambitious reuse and recycling targets		Introduction of recycled content targets	Ban on destruction of unsold items	Improve rules on exports of textile waste	Reduce risk of false green claims	Tax on virgin synthetic fibres	Increase SC transparency	Address release of microplastics from textiles	Ban of chemicals/ substances of concern
	✓	✓	✓	✓	✓	✓		✗	✓	✓	✓	✗	✓	✓	✓
Calvin Klein <small>see PVH</small>	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	?	✓	✓	?
Dressmann	✓	✓	✓	✓	✓	?		?	✓	✓	✓	?	✓	✓	✓
ESPRIT	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✗	✓	?	✓
G-STAR RAW	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
GUCCI	✓	✓	✓	?	✓	?		?	✓	?	✓	?	✓	✓	✓
	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	?	✓	✓	✓
INDITEX	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
 <small>(group level only)</small>	✓	✓	✓	?	✓	?		?	✓	?	✓	?	✓	✓	✓

✓ YES ✗ NO ? DON'T KNOW

Brand/retailer	Engaged 2022	Operate in EU?	EPR	Eco modulated fees	Eco-design criteria for textiles	Ambitious reuse and recycling targets		Introduction of recycled content targets	Ban on destruction of unsold items	Improve rules on exports of textile waste	Reduce risk of false green claims	Tax on virgin synthetic fibres	Increase SC transparency	Address release of microplastics from textiles	Ban of chemicals/ substances of concern
	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
LINDEX	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
	✓	✗	✗	✗	✗	✗		✓	✗	✗	✓	✗	✗	✗	✗
next	✓	✓	?	?	?	?		?	✓	✓	✓	?	✓	✗	✓
PRIMARK	✓	✓	?	?	✓	✓		✓	✓	✓	✓	?	✓	?	✓
	✓	✓	✓	?	✓	✓		✓	✓	✓	✓	?	✓	?	✓
PVH Corp (group level only)	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	?	✓	✓	?
Reformation	✓	✗ (No stores but ships to EU countries)	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Sainsbury's	✓	✗	?	?	?	?		?	?	?	?	?	?	?	?

✓ YES ✗ NO ? DON'T KNOW

Brand/retailer	Engaged 2022	Operate in EU?	EPR	Eco modulated fees	Eco-design criteria for textiles	Ambitious reuse and recycling targets		Introduction of recycled content targets	Ban on destruction of unsold items	Improve rules on exports of textile waste	Reduce risk of false green claims	Tax on virgin synthetic fibres	Increase SC transparency	Address release of microplastics from textiles	Ban of chemicals/ substances of concern
	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	?	✓	✓	✓
 see PVH	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	?	✓	✓	?
 (Fast retailing group)	✓	✓	?	?	?	?		?	?	?	?	?	?	?	?
 (Benetton Group)	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	?	✓	✓	✓
	✓	✓	✓	?	✓	?		?	✓	?	✓	?	✓	✓	✓
	✓	✓	✓	✓	✓	✓		✓	✓	?	✓	?	✓	?	?

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