

Fashion Data: On the Failing Fashion System and Alternative Solutions, José Teunissen

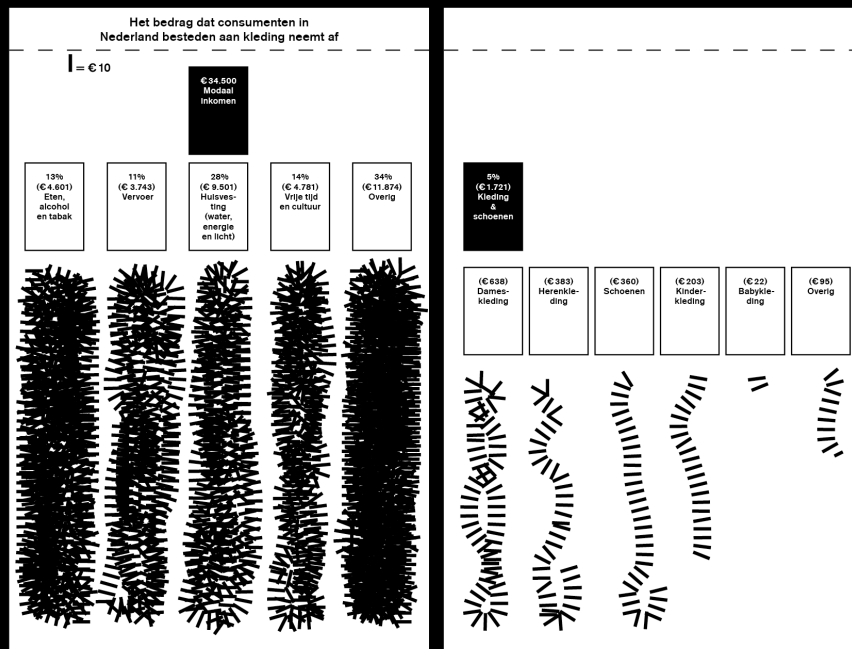
Introduction

Fashion has always been about 'the new'. With the introduction of new trends each season, fashion proclaims that we are 'up to date'. Last season's trends are now passé and we can therefore get rid of the clothes. In this way fashion, more than any other discipline, permanently feeds our desire for consumption. Since the democratisation of the 1960s we no longer have a single indisputable fashion trend, but numerous simultaneous trends. In the meantime we have seen the gradual growth of an ingenious system that we call Fast Fashion. Trends from the catwalk and the street are immediately absorbed and are on sale within six weeks at bargain prices in the high-street stores. The system was encouraged by the relaxing of trade barriers in the 1960s, enabling companies to shift production to countries with cheap labour, thus massively reducing their production costs. The arrival of the digital age has also helped. Since the 1990s it has been possible to share information about sales, new trends and patterns all over the world. Companies such as H&M and Zara (which combine production and retail) have exploited these conditions to become world players within a relatively brief period of time. Their stock is constantly refreshed with new collections and their prices are comparable to those of a piece of cheese or a cinema ticket. And they have a similar shelf life.

Of all clothing produced today, 30 per cent is sold at the recommended retail price, another 30 per cent disappears in the sales and 40 per cent remains unsold or doesn't even reach the shops. The overproduction of today's Fast Fashion system produces an enormous mountain of waste. The question is: how did we get into this mess and what can we do about it?

What is the value and significance of clothing in our culture? Do we really want something new every six months? Or do we want clothes that last longer and, if so, how do we ensure that they remain attractive? Might the ideas of Slow Fashion provide a solution? Or can new technologies make the fashion system more sustainable? And lastly: how do new values and new production methods lead to new (and more sustainable) business models?

In this publication we examine the unethical and unsustainable workings of the current fashion system and explore several alternatives that are being put into practice by designers in the Netherlands and further afield.



AFBEELDING 01

Fashion's loss of values and the need to construct new ones

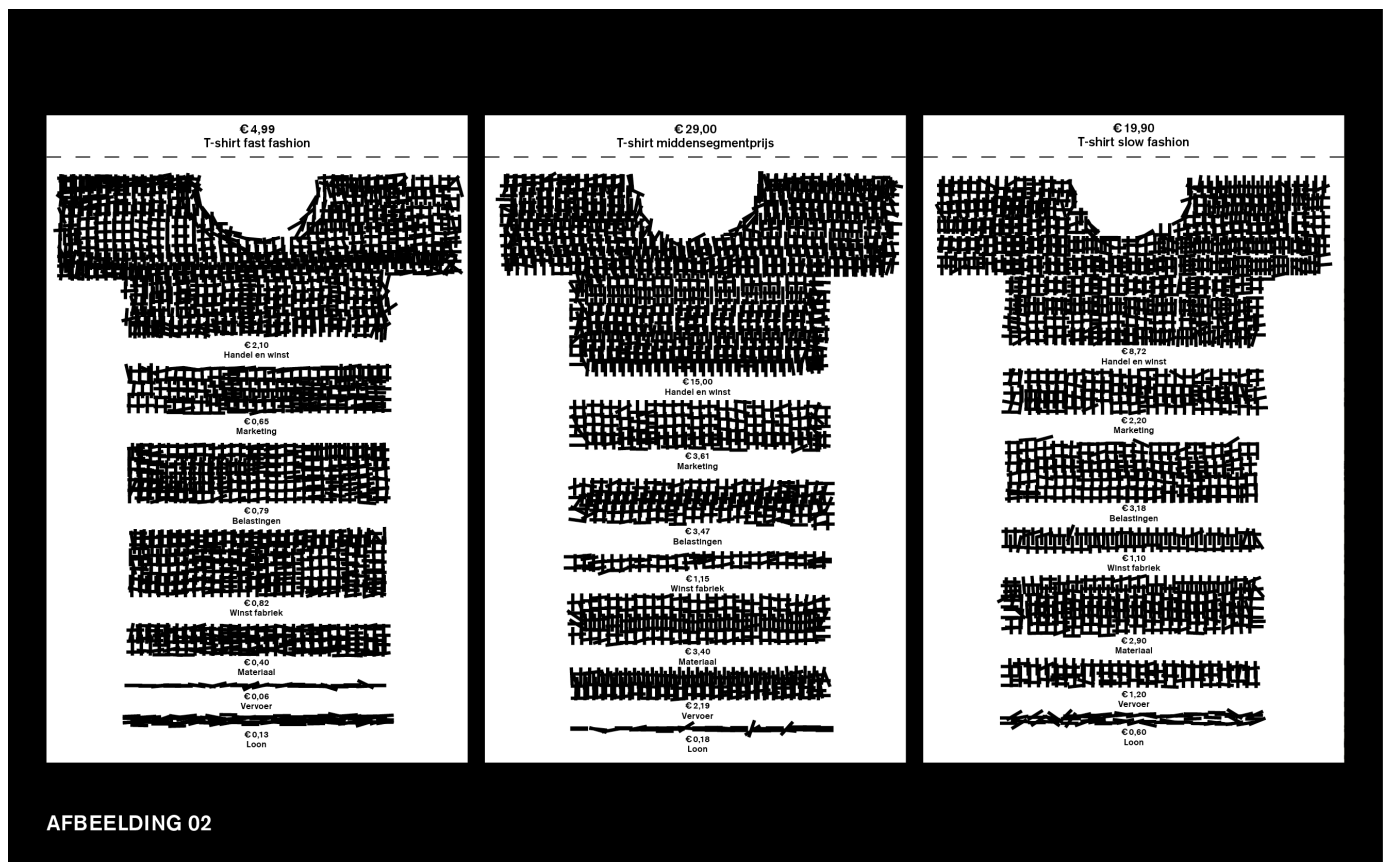
While in the nineteenth century fashion was still the preserve of a small elite, the infrastructure of the modern city and fashion as a public expression of identity were well under construction. Fashion was no longer simply something for the court with a queen and aristocratic ladies as ambassadors. Paris already had couturiers producing collections under their own names and there was already small-scale industrial production, principally of men's clothing. Fashion was now within reach of the middle classes through the first department stores and the new phenomenon of 'shopping'. Previously most items had been made to order, but now city dwellers could gawp at exotic and luxury goods and spend money on things they didn't really need (Lipovetsky 2007: 29). Fashionable women's clothing still cost a fortune because its many layers, trimmings and decorations had to be made entirely by hand.

The production process changed in the first decades of the twentieth century when, under the influence of Paul Poiret and Coco Chanel, womenswear became much simpler and more practical. It was only then that the ready-to-wear industry really took off and fashion found its way to a much broader public. Nonetheless, for a large part of the population ready-to-wear fashion remained too expensive until well into the 1970s. Until this time many (Dutch) families enlisted the services of a seamstress to make their clothes. Family members played an active role in this process, personally selecting fabrics, patterns and trimmings to create their own designs based upon images in fashion magazines or patterns from dressmaking magazines such as Knip and Marion. The ability to sew, knit and repair clothes remained an important virtue for women: homemade clothes saved money, allowing families to remain fashionable on a small budget. (Teunissen 2011: 157-177)

The arrival of fashion boutiques in the 1960s and 1970s brought greater variety in styles and price levels. But it was not until the 1980s, with the launch of the first true chain stores such as Esprit, Gap, Banana Republic and Mac&Maggie (in the Netherlands), that a larger proportion of the population began to buy ready-to-wear fashion. The 1990s witnessed the rapid advance of H&M and Zara, which have managed to

seduce teenage consumers with designs copied quickly from the catwalk and sold at unprecedentedly low prices.

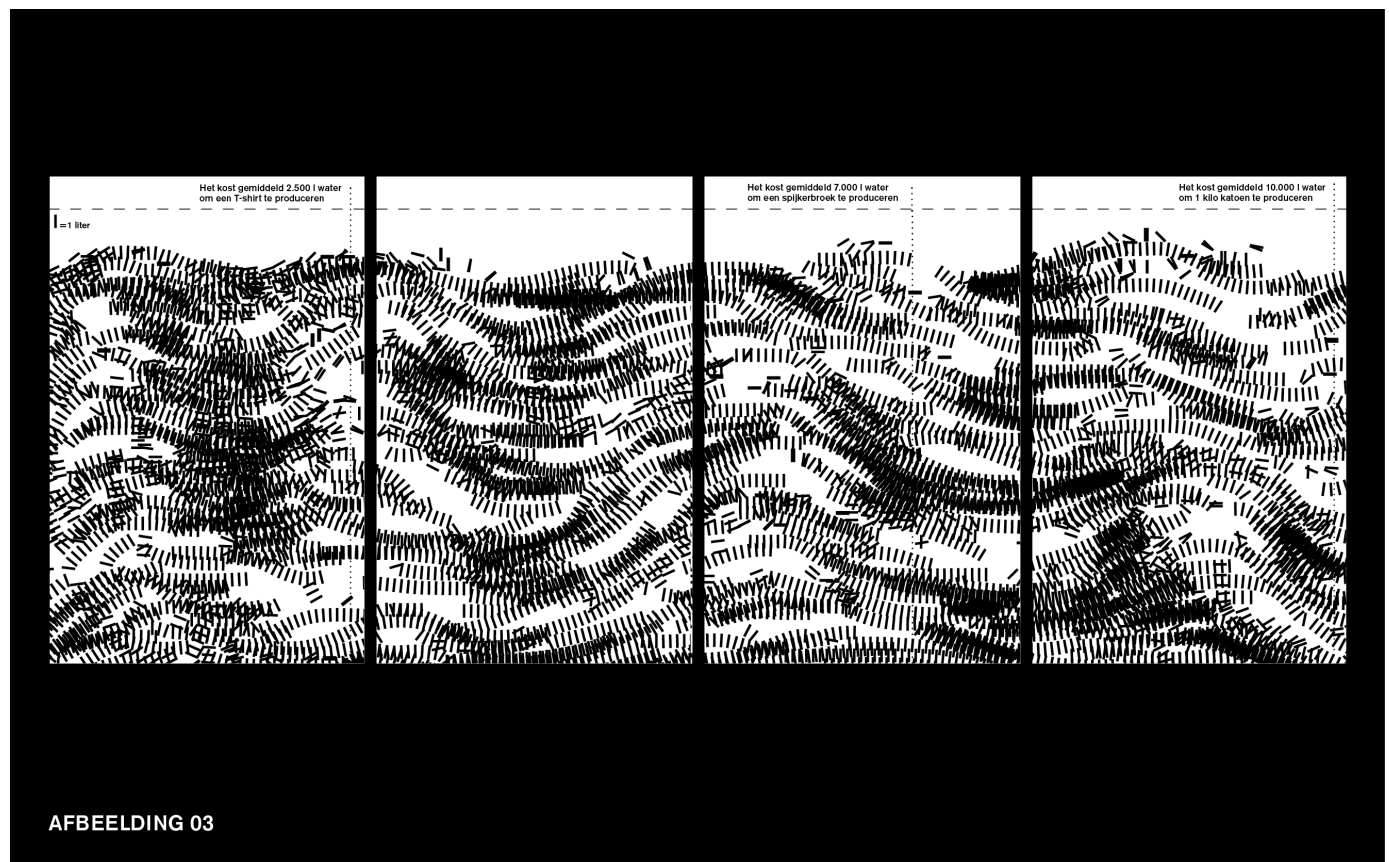
This period saw the demise of dressmaking and the disappearance from the high street of fabric shops and haberdashers. Consumers consequently lost appreciation for the craft techniques required in the making of clothing. Handicrafts have been scrapped from school curriculums and at home the knowledge transfer of skills such as sewing and knitting from mother to daughter has been broken. The result is that today's average consumer has barely any appreciation of fabric quality or insight into the techniques employed in making garments. Tactile qualities, the right fit: for generations these were decisive but are now no longer criteria. Appearance is all that matters. Does it look sufficiently similar to the billboard image or the catwalk photos? Fashion has become a quick snack, purchased primarily by teenagers and thrown away after a few wears. The price is no obstacle: in 2012 we spent only a tiny percentage of our annual income on clothing.



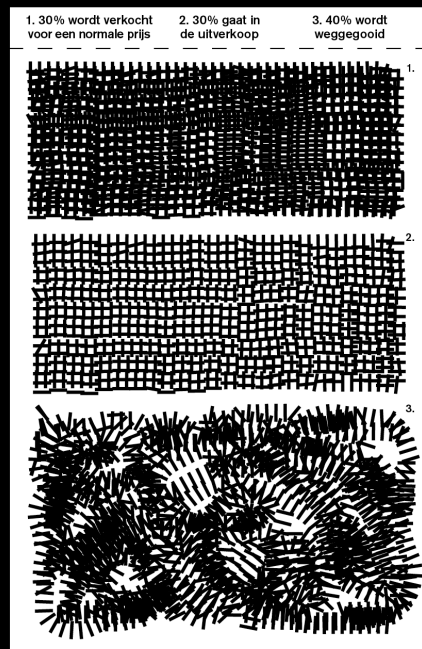
This has been made possible by the sharp drop in the cost price of garments. Through low-cost country sourcing, the price of a T-shirt, for example, has plummeted to fifty cents. Under what conditions such a product is assembled and where the cotton comes from remains unclear: the involvement of numerous agents and middlemen renders the provenance almost unknowable. The cost price is a mere fraction – 10 to 20 per cent – of the retail price. Substantial margins go to agents, transportation and, above all, the marketing of the brand. With the right photography and targeted campaign a company can project the desired dream image onto a product that has no inherent qualities of its own.

Michiel Scheffer attributes this loss of quality to the fact that, since the 1990s, the fashion sector – like the banks – has been enthralled by short-term profits. The drive to maximise profits has accelerated the fashion cycle, pushed production to countries with cheap labour, worsened working conditions in the fashion industry and destroyed innovation (Scheffer 2013: 86). Whereas textile producers such as DuPont were once an innovative force, the fashion market is now dominated by Fast Fashion chains and brands such as Nike. A consequence of this is that material costs have fallen while costs for marketing and advertising have risen astronomically. According to Michiel Scheffer 'Branding is merely a cover-up for the technical incapacity to

develop and introduce more fundamental product innovation'. (2013: 91). The global fashion chains have increasingly become part of the financial system. As companies listed on the stock market, they employ high profit margins and quick discounts so that capital is quickly freed up for the next cycle. The result is that we have lost all personal knowledge about the process of making clothes and this new business logic means that consumers no longer have a personal investment in the products. While the garment is praised on the billboards as an exclusive dream of luxury, it costs almost nothing in the shops. This is the paradox of contemporary fashion.



The most important consequence of a fashion company's drive for maximum profits is that it loses long-term vision. Investment and innovation are ruled out and the rapid turnover rate of the Fast Fashion system puts massive pressure on dwindling resources. In 2014 the worldwide production of cotton and polyester was 65 million kilotons and is expected to rise to 110 million kilotons by 2020 (Scheffer 2013: 97). Cotton and polyester production (which together constitute 85 per cent of fibres used in the clothing industry) have a massive impact on the environment: one requires extensive areas of agricultural land and the other is made from petroleum. Cotton production also places massive strain on our water reserves: 2.5 per cent of all the world's water is used to grow cotton. The shrinking of the Aral Sea is just one example of how cotton production has negatively affected the infrastructure of groundwater and surface water. But the water usage does not stop with the harvesting of cotton. Enormous quantities of water are also required for the manufacturing process: a simple cotton T-shirt uses as much as 2500 litres. And that's not all: 17.5 per cent of all the world's pesticides are used in growing cotton. These chemicals end up in the surface water along with those used to wash, bleach, dye and coat denim. In 2011 Greenpeace reported that 70 per cent of all of China's rivers are polluted: a fact to which the fashion industry turns a blind eye (Greenpeace: 2011). These issues constitute a truly systemic crisis that forces us to think about the more fundamental values of clothing, a transparent and sustainable production method in a chain in which waste products are re-used as raw materials.



AFBEELDING 04

Slow Fashion

Slow Fashion is the most significant movement that is attempting to invest fashion with another set of values, with the emphasis not on 'the new' but on the handmade, the tailor-made and on classical forms.

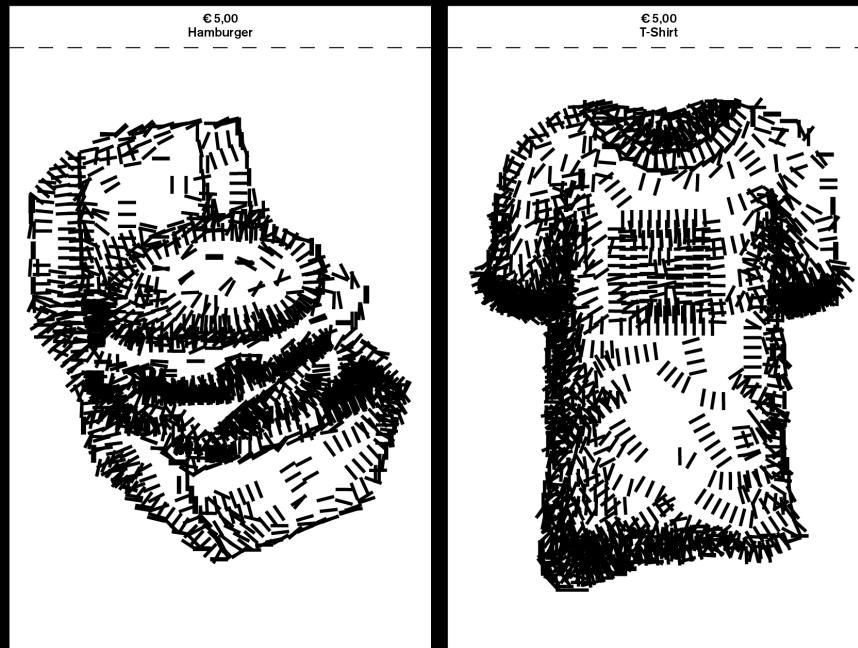
Proponents of Slow Fashion claim that these criteria give clothing a value that extends their lifetime. The greater quality or timeless design of handmade garments are of importance, but so too is the fact that the consumer is brought closer to the making process and craftsmanship. The garment itself comes to the fore instead of the image or the brand. Slow Fashion places the emphasis on the provenance of the product: it makes the production process transparent, making it possible to trace how and under what conditions a garment was made. And it attempts to slow down the system.

The Slow Fashion movement has three core principles: the industry must return to the use of local raw materials and so-called 'distributed economies'; the production system must be transparent with direct lines between producers and consumers (eliminating intermediaries); and fashion needs new values (such as recycling or a unique story) so that fashion products remain attractive longer. In the Netherlands various designers are attempting to market sustainable brands based upon this philosophy, for example [HelloFashion](#) by Monique van Heist.

Slow Fashion thus shifts attention back to earlier definitions of fashion, i.e. the making of clothing and identity rather than simply appearance, according to Hazel Clark: 'All these issues call for "paying attention to" or "being aware of" something that typifies an unhurried approach'. (2008: 427). Slow Fashion thus assumes a new type of consumer who is not dazzled by classical marketing strategies but who feels an affinity with a maker and his or her brand. In the Netherlands examples include [Mud Jeans](#), which builds a more committed relationship with its customers through a lease model for jeans. [YouAsMeMeAsYou](#) uses crowdfunding to cultivate this relationship.

More and more fashion brands are choosing to create a dialogue with their customers by listening to their

wishes and desires and sometimes even involving them in the design process. In the long run such a dialogue (with a clientele that knows what it wants) leads to co-creation and thus to a more sustainable fashion product in which supply and demand are once again entirely attuned to each other as they were in the days of tailor-made clothing. And the clothing is made only when the customer orders it.



AFBEELDING 05

Closing the loop and the circular economy

While Slow Fashion creates a more sustainable fashion system by means of a transparent product with direct lines to the consumer, the 'circular thinking' in terms of sustainability goes a step further. It is crucial that all raw materials are kept in the chain: after use, all waste products are sorted and re-used so that there is as little loss of energy as possible. This way of working is known as 'closing the loop', through which an attempt is made to carry out all steps – shredding spinning, weaving, making – locally so that the transportation miles do not push up CO2 levels.

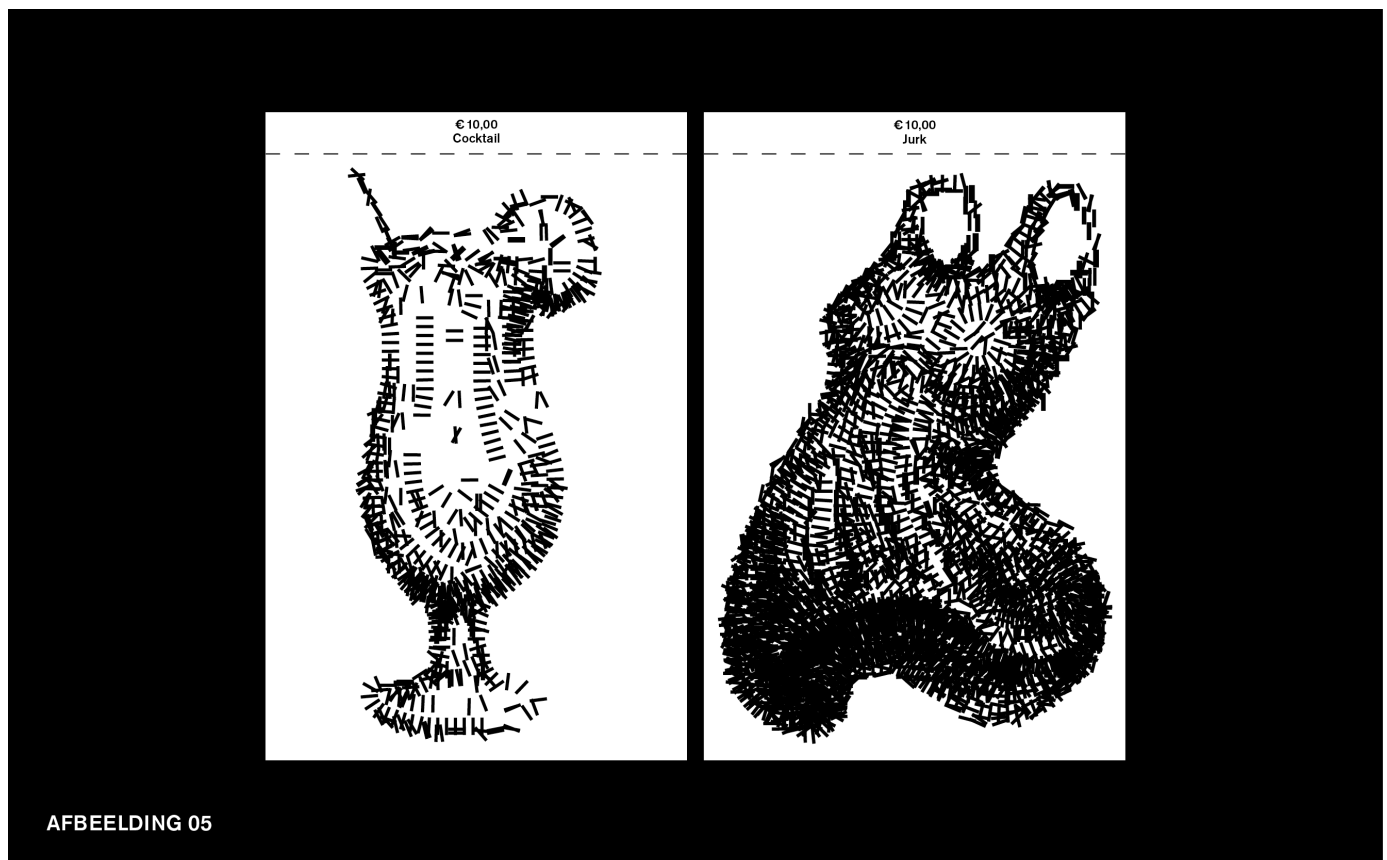
Only 15 to 20 per cent of all textiles are currently recycled. The rest ends up in landfill sites or is burned, leading to a great loss of energy and raw materials. Several textile and carpet manufacturers in the Netherlands, such as Desso and Interface, are leading the way in terms of [re-use](#), working systematically to close the loop. But the fashion world lags behind. Last year WE launched a recycled sweater made from old clothing and G-Star Raw has produced denim from recycled ocean plastic, but there is no structural vision and policy for how used clothing can be fed back into the system.

Because clothes remained costly possessions until well into the twentieth century, a lively second-hand market developed. In addition there are still small-scale classic recycling projects, most notably in Prato in Italy and in the South of France, where wool is collected, sorted by colour and re-spun so that the threads do not have to be re-dyed. These practices have been rediscovered by small, sustainable brands such as the French company L'Herbe Rouge and Kings of Indigo, which is working with companies in Prato on

recycled jeans.

In the Netherlands the Texperium Foundation has been working for several years to develop and perfect local textile recycling. In an initial pilot scheme, the foundation recycled used KLM uniforms, which for security reasons may not be thrown away, to produce scarves and slippers in the airline's distinctive shade of blue. It is now working on perfecting the eco-system by adding spinning to its existing unravelling facilities.

This circular thinking has spawned several new design philosophies. Many designers are against low-cost country sourcing. They want to be closer to the making process and would rather develop their own fabrics by using recycled materials or 'forgotten' fibres such as hemp or flax. The exploration of these traditional plants, which in earlier centuries played an important role in the fabrication of textiles, uncovers history and also invites experimentation, resulting in new fabrics in which, for example, tactile values are important.



Designers, including fashion designers, are increasingly aware of the fact that their products will eventually be recycled. This 'design4recycling' principle is based on guidelines that indicate what designers need to take account of in the design process so that their products can be 100 per cent recyclable.

Lastly, there are designers who take a more political stance as hackers in an attempt to deplete the enormous amounts of unsold clothes generated by the Fast Fashion industry. This so-called 'dead stock' is their material. They adapt the design or customise it in order to make it more attractive. In this way these 'waste' garments find their way to customers rather than ending up in landfill sites. See, for example, the project [Hacked](#) by Van Slobbe Van Benthum, and the work of Conny Groenewegen.

In fibre production in the Netherlands there is now a keen awareness that flax and hemp are much more 'climate neutral' than cotton and that until well into the nineteenth century these crops were widely used for making linen and canvas. This realisation has led to a 'green deal', in which the Ministry of Economic Affairs has partnered with businesses to set up educational programmes for the cultivation of and processing of hemp. Farmers are encouraged to grow hemp and are being educated on how to use all parts of the plant:

in textiles, cattle feed, building insulation and composite materials.

The technological solution

It is often assumed that natural materials are more sustainable than their synthetic counterparts because they are made from renewable raw materials. But the development of innovative, smart materials can contribute to the greening of the clothing industry, and the combination of new textile technologies and IT can increase the efficiency of clothing production.

For example, the Japanese chemical and pharmaceutical company Teijin has employed mimicry to develop [Morphotex](#), a coloured fibre that contains no dyes or pigments, thus reducing water and energy consumption and industrial waste. The fabric is inspired by the wings of the morpho butterfly found in the Amazon rainforest. In flight the butterflies seem to disappear in the blue sky. The butterfly's metallic blue colour derives not from pigment but from the structure of microscopic light-reflecting scales on its wings. For Morphotex, Teijin developed a similar structure that reflects light to produce colour (O'Mahony 2013: 179). The Austrian Lenzing Group has used nanotechnology to develop a fibre called [Tencel](#) from wood pulp and the Austrian yarn manufacturer Schoeller Spinning Group has introduced a mix of merino wool and inox (stainless-steel) that makes the fibres stronger and more resilient and therefore longer-lasting (O'Mahony 2013: 180). New fibres such as these are distinguished by a new aesthetic and new material characteristics. Designer [Jef Montes](#) explores the beauty of technological fibres, mostly developed for technical applications, by incorporating them within his couture.

That biological processes can help to make the fashion system more sustainable is evident in the work of designers such as [Suzanne Lee](#). For several years she has been developing a leather-like fabric from the layer of cellulose that forms on the surface of tea. Plants and bacteria can also assist in more sustainable methods of dyeing fibres. [Neffa](#) by Aniela Hoitink, is an example. On a more fundamental level, [Carole Collet](#), professor of Design for Sustainable Futures at Central Saint Martins in London, is exploring the use of genetic technologies to allow fabrics to grow on plants (Teunissen 2014:33).

The interplay between sustainable concepts and technology has brought about radical changes in the traditional process of making clothes: from drawing to pattern to stitched panels. The rapidly advancing field of 3D printing is a good example: the Electroloom, a technology for 3D-printing fabrics is currently being tested. Experiments are also being carried out with 3D scanning the body to create a mould for making clothes that require no traditional patternmaking or sewing. Li Edelkoort has predicted a future in which people can download patterns from an open-source platform to make their own Dior dresses. And so we return to the nostalgia of homemade clothing, only now it is made to measure.

These technological innovations not only effect sustainability but also influence the communication and meaning of clothing and fashion. There is an important role for technologically advanced materials – so-called smart fabrics – that can measure temperature, make emotions visible through colour or react to external factors such as air quality. [Pauline van Dongen](#), for example, has explored how light in clothing reacts when a group of joggers train together.

Smart fabrics change the relationship between clothing and the wearer, thus altering the meaning of the clothes. They strengthen the body by supporting movement or they make the wearer (and others) aware of the body's condition or response to external conditions. The question remains whether we will wear such

items in order to communicate who we are as individuals or in order to interact with others. Smart clothing can become a cocoon from within which we communicate with others at a distance or indeed with ourselves because it permanently confronts us with our own body and the bodily functions it records. Like Slow Fashion and the circular economy, this Smart Fashion will shape future definitions of our concept of fashion. All these new tendencies will eventually make the dream world of magic and glamour served up by big fashion brands, fashion shows and magazines seem outmoded while fashion's tangible, concrete dimension – the power of craftsmanship and its timeless and durable aspects – will gain ground.

This article is an elaboration of research carried out for the exhibition *Fashion Data* and draws upon findings that were published in [A Fashion Odyssey](#) (ArtEZ Press, 2013).

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Figures

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